

THE EVOLUTION OF PRIME NUMBERS IN THE THEORY OF HARMONIC CREATION

An excerpt from



THE TOTALITY OF GOD
AND THE IZUNOME CROSS

Unlocking the Secret to the Riddle of the Ages

Al Leone

© 2005

*Author's Note: The segment of **The Totality Of God** containing the evolution of prime numbers occurs about midway in "The Theory of Everything," the last of 26 essays concluding the Fourth Digital Edition and the one in which the Theory of Harmonic Creation is resolved for all source harmonics and the multipliers whereby they evolve. This theory, whose principles are invoked from the beginning of my work, is formally defined on p. 299. Simply, "The existence and evolution of the Universe and all within it can be understood in terms of the principles underlying the creation of harmonics, the perfected merging of Music and Mathematics – the spiritual and physical reflections of the same Truth within the Movement." The crux of this theory is stated in the first 24 words of the definition, and the manner whereby harmonics are created underscores my entire science. Several essays, most notably the aforementioned, address it specifically. To then describe their creation as the perfected merging of Music and Mathematics speaks to the fact that not only are harmonics their means of connection, but there is a certain beauty and precision to the occurrence. Concluding by calling them reflections of the same Truth Within the Movement is more than just to use a clever Madison Avenue type of catch phrase without scientific merit, but to elucidate that there is a single universal truth upholding the physical laws for all non-chaotic vibrational and rotational movement. This universal truth is exemplified by the Quadralitic Cube, the Structure for the Theory of Harmonic Creation. Essential to this theory, which is at the foundation of the System of Quadrality, is the idea that the Universe manifests as an infinite number of states of being and conditions of existence, all of which can be described through word equations depicting the energies involved. Such states and conditions evolve from their source harmonics through Harmonic Evolution, and the things that maintain the integrity of the harmonic system to infinity are prime numbers, themselves infinite. As the below excerpt shows, though the manifestation of prime numbers is apparently random and indeterminable within the set of all source harmonics, the framework in which they appear is remarkably ordered and definitive.*

Throughout my work, *Quadrality* has been associated with the evolution of *Duality*, not as a harmonic derived from *the Source*. That doesn't mean it can't be, and quadralities such as the Four Realms, the Four Directions, and the Four Seasons can be thought of as doing so in the sense of completeness through *Quadrality*. And that can apply to higher harmonics as well, such as the Ten Sefiroth or the Twelve Zodiac Signs. So, it was permissible for me to include *Quadrality* with the other three *source harmonics* as derived from *the Source* at the first level. Plus, studying how *Quadrality* integrates as a *source harmonic* allows us to see the way four energy clusters could integrate when a previous *harmonic multiplier* has created them. Simply return to p. 949 and substitute the energy clusters for the individual numbers. But I feel that the purpose of higher *source harmonics* is primarily to provide for those unattainable through the processing of lower harmonics; and we'll soon see why.

So far we've taken a serious look at the processes surrounding the evolution of the first four *source harmonics* following and derived from *Unity*, and from them built

an understanding of the *Mechanics of Harmonic Creation*. The key was realizing that any *source harmonic* must first integrate all eight realms and models, and that it can do so for as many Children, or harmonic subdivisions, as it chooses. Once this has taken place, it then joins the great harmonic family to continue to grow and evolve according to the *Rules* that began it all. The only thing left to address concerns the *source harmonics* above *Quintality*. And it is there that the real power and strength of *Harmonic Creation* appear – power because of its ability to handle all *source harmonic* requirements, and strength because of the structural integrity thus created.

All even *source harmonics* can be thought of as a product of *Duality* and a series of even and/or odd *harmonic multipliers*. For instance, $20=2 \times 2 \times 5$. Yet, while odd *source harmonics* can often be thought of as a product of *Triunity* or another odd harmonic and a series of odd *harmonic multipliers*, there is a select group that stands on its own. It is in it we find the structural strength of *Harmonic Creation* that extends to the harmonics of infinity. It is responsible for vertical expansion in the *1st group* resulting solely from *source harmonics* that are not a product of others. I earlier promised to reflect on a process of harmonic generation that could only be associated with a direct connection to *the Source*. As an example, of the first sixteen harmonics, 5, 7, 11 and 13 can't be derived from *Duality* or *Triunity*. These integers, to which 2 and 3 can actually be added, are members of a unique group of numbers referred to as *prime*. Each is a whole number that is not divisible without a remainder by any whole number other than itself and 1. So, the *Fifth, Seventh, Eleventh* and *Thirteenth Harmonics*, as well as any other *prime harmonics* above them, are all derived from *the Source*. And these numbers are so important that the *fundamental theorem of arithmetic* concerns them. As *Bookshelf* notes, it "asserts that any positive integer is a product of primes that are unique except for the order in which they are listed." With respect to *Harmonic Creation*, all harmonics can be seen as having been generated through multiples of primes. This paragraph's opening statements follow from that. (Non-prime *source harmonics* and *harmonic multipliers* only produce alignment variations.) During my work, it was often useful to think of harmonics as a sum of various *States of Alignment*. On p. 456 we considered how in one harmonic could be contained the potential for the next. I explained on pp. 525-526 how **Q** and **anti Q** could combine in the *Fifth* and *Seventh Harmonics* such that a resulting wave aspect remained. And on p. 547, following the comment on the center energy in *Triunity*, *Quintality* was described as three Means realms between two Extremes realms. And you may recall that the pentagram was a geometric representation of an ancient wisdom based on the *Four Ancient Elements* and *Spirit*. In the *Tetragrammaton*, *Ain* is God, *the Source*, separate from God's four tangible manifestations. So, all of these additive analogies are appropriate when *addition and subtraction* are the ruling arithmetic processes. But *Harmonic Creation* is ultimately ruled by the processes of *multiplication and division*, and none of the additive analogies re *Quintality* or any other *prime harmonic* would be possible if there wasn't for them a direct multiplicative connection to *the Source*. For the *prime harmonics*, there are none between them and God. And whenever God and the Universe need additional structural integrity at the Balancing Center as the harmonic system grows, another prime number appears to bridge the gap.

Actually, there is more than metaphysics involved in their appearance, and it stems from the truth that harmonics play a role in mathematics as well as music. Moreover, it is a truth that is easily illustrated, which I have on the next two pages as the *Harmonic Evolution of Primes*. Their explanation will follow:

The Harmonic Evolution of Primes
(Harmonic Numbers 1-32)

Harmonic Number	Harmonic Type	Primes Values and Natures	Total Spiritual	Total Physical
1	S	1	1	0
2	P	2	1	1
3	S	3	2	1
4	P	2 x 2	2	3
5	S	5	3	3
6	S/P	3 x 2	4	4
7	S	7	5	4
8	P	2 x 2 x 2	5	7
9	S	3 x 3	7	7
10	S/P	5 x 2	8	8
11	S	11	9	8
12	S/P	3 x 2 x 2	10	10
13	S	13	11	10
14	S/P	7 x 2	12	11
15	S	3 x 5	14	11
16	P	2 x 2 x 2 x 2	14	15
17	S	17	15	15
18	S/P	3 x 3 x 2	17	16
19	S	19	18	16
20	S/P	5 x 2 x 2	19	18
21	S	3 x 7	21	18
22	S/P	11 x 2	22	19
23	S	23	23	19
24	S/P	3 x 2 x 2 x 2	24	22
25	S	5 x 5	26	22
26	S/P	13 x 2	27	23
27	S	3 x 3 x 3	30	23
28	S/P	7 x 2 x 2	31	25
29	S	29	33	25
30	S/P	3 x 5 x 2	35	26
31	S	31	36	26
32	P	2 x 2 x 2 x 2 x 2	36	31

The Harmonic Evolution of Primes
(Harmonic Numbers 33-64)

Harmonic Number	Harmonic Type	Primes Values and Natures	Total Spiritual	Total Physical
33	S	3 x 11	38	31
34	S/P	17 x 2	39	32
35	S	5 x 7	41	32
36	S/P	3 x 3 x 2 x 2	43	34
37	S	37	44	34
38	S/P	19 x 2	45	35
39	S	3 x 13	47	35
40	S/P	5 x 2 x 2 x 2	48	38
41	S	41	49	38
42	S/P	3 x 7 x 2	51	39
43	S	43	52	39
44	S/P	11 x 2 x 2	53	41
45	S	3 x 3 x 5	56	41
46	S/P	23 x 2	57	42
47	S	47	58	42
48	S/P	3 x 2 x 2 x 2 x 2	59	46
49	S	7 x 7	61	46
50	S/P	5 x 5 x 2	63	47
51	S	3 x 17	65	47
52	S/P	13 x 2 x 2	66	49
53	S	53	67	49
54	S/P	3 x 3 x 3 x 2	70	50
55	S	5 x 11	72	50
56	S/P	7 x 2 x 2 x 2	73	53
57	S	3 x 19	75	53
58	S/P	29 x 2	76	54
59	S	59	77	54
60	S/P	3 x 5 x 2 x 2	79	56
61	S	61	80	56
62	S/P	31 x 2	81	57
63	S	3 x 3 x 7	84	57
64	P	2 x 2 x 2 x 2 x 2 x 2	84	63

As to the chart, before any interpretation let's be clear on what it contains. First, it is called the *Harmonic Evolution of Primes*, which means we are examining the appearance of primes in the series of positive integers not just as a requirement for mathematical completeness but as an inherence in the process of harmonic evolution. Thus, the first column – the series of positive integers from 1 to 64 – is referred to as the *harmonic number*. You will notice that asterisks have been placed around certain numbers. These are the primes found between 1 and 64. The number 1 is not included, and in fact is considered unique, being neither prime nor non-prime.

The *harmonic numbers* are equivalent to the values of the *source harmonics* in all previous discussions of harmonic evolution. Since we only studied those up to *Quintality*, most were prime. But as we can see from the chart, numerically, most *source harmonics* and *harmonic multipliers* are non-prime, any of which is a product of primes – its own series of harmonics and multipliers. We will call the first in the series its *root harmonic*, which is thus distinct from the product itself – the *source harmonic*. It determines the root spiritual or physical nature of the product's lineage.

The second column indicates whether the primes involved in the creation of any harmonic are spiritual alone, denoted by the non-bold S, physical alone, the bold **P**, or a combination. Though in a different sense, *Harmonic Creation* likewise considers the number 1 unique. It is the first spiritual harmonic, receiving the S designation in the second column. But as *Unity* – the truth of being the first harmonic, from which all the rest evolve – it imparts no spiritual or physical identity on any harmonic born from it or with which it may multiply. That is, *Unity* gives birth to solely spiritual as well as solely physical harmonics, despite the fact that it itself is spiritual. Moreover, it will not alter the spiritual or physical nature of any harmonic it multiplies with. All other harmonics, spiritual or physical, will impart their natures on the composite. The product of a solely spiritual harmonic (all odd harmonics) and a solely physical harmonic (any even harmonic that is the product only of even primes) will result in an even harmonic that contains both natures. Naturally, multiplying any harmonic by a composite will result in a composite product.

The third column specifies the prime values, with non-bold vs. bold numbers indicating their spiritual vs. physical natures. 2 is the only bold, and thus physical, prime, and if both natures are present I've placed spiritual before physical as the *root harmonic* in deference to the *Law of Order*. But either can be first. The *fundamental theorem of arithmetic* specifies that order is not a consideration in the final product. And for our present purposes, *it likewise has no effect on the harmonic number purely as a function of the values of the primes being multiplied*.

Once again, *Unity* is included, since we will be concerned with keeping track of the sum of primes of a particular nature from *Unity* up to any harmonic level – the purpose of columns four and five. The validity for doing so, and truth thereby gained, comes from what we may consider as *Harmonic Creation's* own fundamental theorem. It has been stated many times and referred to as the *Principle of Further Levels* – the understanding that *whatever comes after exists in the context of what came before*. In other words, *Harmonic Creation* provides through primes the Universe's harmonic environment, begun with *Unity* and added to with each additional *State of Alignment*.

To what grand realization is this leading us? A few final observations are all we need. In general, the column of *harmonic types* shows that S harmonics, those that are totally spiritual in nature – being either an odd prime or product of odd primes – alternate with the S/**P** harmonics. These are the composite harmonics, formed from a product of even and odd primes. This alternate progression is only interrupted when a

composite harmonic is replaced by a **P** harmonic, the *harmonic type* derived as a product of solely physical – or even – primes, i.e., 2. This is the form of evolution typified by cell division, the form at the center of the *Determinants* essay and its resultant formula on p. 927. To emphasize their location in this chart, I've placed a rectangular border around them. Even in this brief list it is clear how the interval between these solely physical harmonics doubles such that their interrupting the alternating of S and S/**P** proportionally reduces. And while it has taken to the 64th harmonic to include the first six numbers in the evolution of *Duality*, to include the next six would take you to the 4096th! Nevertheless, as we will soon learn, even those brief appearances have an enormous impact on physical existence.

For now, let's focus on the lesson at hand. Based only on the alternating of *harmonic types*, you may intuit that the accumulation of spiritual primes will surpass the physical as harmonics evolve. And a quick examination of the prime totals going down the list shows that to be the case, being particularly evident in the second half. Though physical primes occasionally diminish the difference between the spiritual and physical totals, the overall result is an ongoing increase in cumulative spiritual primes.

But the larger truth is disclosed in the first half. You'll recall that oftentimes something we learned proved to reflect or reinforce a previous truth. These were often parallel truths, revealed through their own derivations and logic, and yet they served to uphold the larger truth that the *System of Quadrality* was meant to portray. For instance, a great example early on was how the *Right- and Left-hand Rules* in Physics paralleled the rotational principles of Yang and Yin. Together they upheld the larger truth of human consciousness having arisen out of the fields and currents of the Earth's core. On p. 541, we recalled how the evolution of **Q** arrived at through *Wave Theory* reflected the evolution of harmonics through *parallel and series circuits*. Together they spoke to the larger truth of how the Universe came into existence. This was soon followed by the completion of the third of three approaches I'd taken to understand the role that the evolution of Realms and Models played in its creation. The first surrounded the development of the **Four Rules of Quadrality**. The second used a harmonic approach once again based in *Wave Theory*. The third, finished on p. 569, modeled cell division. In each case, and using logic consistent with it, we arrived at the same Cyclic or Linear evolutionary order. There were many other examples, in the main text and in these essays. The greatest of all I would say concerned the discovery of the *Quadralitic Cube* itself, when the same *Cube* was derived using separate *cyclic* and *linear derivations*. The combined truth revealed the integration of all vibrational and rotational movement through the *Right- and Left-hand Rules* for the *Triunity of Tangible Creation* – Light, Sound and Heat. Yet, as profound as that was, it still existed in the context of the *Big Picture* we couldn't see until the building block of organic existence, DNA, could be placed within it!

The parallel I wish to address here began at the bottom of p. 535. I was then concluding an analysis of how **Q** and **anti Q**, the two oppositional forms of the *Quadralitic Cube*, had been responsible for the manifestation of matter and antimatter through the evolution of harmonics:

The cumulative relationship of the **Q / anti Q** deformations necessary to tune the Universe – as mass with phase and spin – to the energy in which they were born, could be the same ratio that baryons (protons and neutrons) will later have to photons. Thus, it would also establish the ratio of matter over antimatter that the Universe will uphold to accomplish it!

But while these oppositional *Cubes* participated equally prior to macrocosmic tangibility, once a physical medium existed only one could be in control. That would require the Universe to choose matter over antimatter, an issue Science has yet to resolve. I then offered a rationale for it, courtesy of the *Theory of Harmonic Creation*:

In the microcosm of Tangibility, elementary particles spin in both directions in a medium, reflective of their sub-quantum roots as **Q** and **anti Q**. But in the macrocosm of Tangibility, a medium must spin in a single direction to expand or contract, reflective of only one. In choosing the spin of **Q**, in essence the Universe chose everything the positive conjugate implies: creation over annihilation. So, while the harmonics of matter kept going, the harmonics of antimatter stopped at the 3rd level of *Quadrality* with the 16 that produced the *Quadralitic Cube* for **anti Q**. That's how antimatter got tuned out! In Tangibility, the higher harmonics of matter turned the noise of Chaos into the music of Order. The lower harmonics of antimatter can still be heard with those of matter, to counterpoint the underlying pulse and beat!

I've many times used the word "Veil" as a metaphor for the boundary between God and Universe, Intangible and Tangible. But as I explained on p. 405, *Footnote 166*, "where it might be and in what form it appears is as much a dynamic process as is the creation of the Universe." The *Tetragrammaton* placed it between *Ain* and the *Four Attributes of God*; similarly, in my *Figure 17L*, p. 348, it is at the top of the *Quadralitic Cube*. We generally thought of it in practice as being at the beginning of the *Physical Model*, between Intangible Spiritual and Physical quadralitic realms. However, depending on its application, the Veil could also be placed at either of the two boundaries within the *Physical Model*. And in the above scenario, the Veil can be said to reference one of those – the boundary between Tangible Spiritual and Physical realms. Moreover, somehow the 16th harmonic contains the key to its portal.

Resume our present chart. Proceed down the columns of total spiritual and physical primes at each harmonic. Balance is achieved at the 2nd. A slight spiritual edge at the 3rd becomes physical at the 1st level of *Quadrality*. Balance returns with the 5th, the edge spiritual once again at the 7th. But the 2nd level of *Quadrality* returns the edge to the physical side. Balance is restored at the 9th, with the back and forth dance of primes giving way to a 3 prime spiritual lead at the 15th. But once again the edge returns to the slight favor of physical with the 3rd level of *Quadrality*.

Up to this – the 16th harmonic – the dance of primes has transpired with new spiritual primes manifesting to balance out the increase in the single extant physical prime as it multiplies through the evolution of *Duality*. But with the very next harmonic – the 17th – a new prime, balance is restored, with the edge never returning to the physical side. So, this chart, clearly illustrating the evolution of the Universe's harmonic environment as represented through prime numbers, substantiates the intuition I had concerning the ability of harmonics to tune out antimatter. In the balance of cumulative spiritual and physical primes, the spiritual primes are upholding **Q** – the *Quadralitic Cube* for matter – while the physical primes uphold **anti Q** – the *Quadralitic Cube* for antimatter. And you may also recall how important was the 16th harmonic in providing all the musical notes necessary to balance Order and Chaos! *The Process of Further Levels* had also ably demonstrated its significance (p. 734). Indeed, our recognition of the 3rd level of *Quadrality* as fulfilling the requirements of the Universe for energetic evolution goes all the way back to Point Nineteen of **Metaphysics** as revealed through the **Cycle of Principle and Concept**.

This is also in accord with the *Principle of Balance* on the spiritual side of the Veil, with both natures seeking balance, and the *Law of Order* on the physical side, where spiritual still sets the precedent and has preference. But through what, then, might the precedent for behavioral reversal be set – where physical has preference? I said before that we would soon learn how even the brief appearances of dualistic evolution have an enormous impact on physical existence. That time has come.

From the mathematical perspective, the order of harmonics doesn't affect the final result. This is also true from the harmonic perspective, but only in terms of the harmonic environment and its spiritual and physical generating values. The *source harmonic* and each *harmonic multiplier* contribute to it. But *Harmonic Creation* provides for a differentiation not permissible through the laws of mathematics. It is that the order of the *source harmonic* and all of its *multipliers* will create different *conditions of existence*. Moreover, though a particular harmonic may be repeated in a product, which has no numerically differentiable impact, it does affect the *conditions* possible. Each harmonic represents a particular building block in existence. Thus, multiple dualities, triunities, etc., in a given product are existentially differentiable. As a result, mathematical principles of probability can be applied.

All this holds herein, where the *source harmonic* itself has been expressed as a product of primes. And having 3, 4, 5 or more even primes in a product greatly increases the number of alignments in which the *root harmonic* is physical, since each is considered a different entity in probability. It involves finding the factorial of a number, denoted by an exclamation point. So, for the 32nd harmonic, with five 2's, the factorial of 5, or 5!, is $5 \times 4 \times 3 \times 2 \times 1 = 120$. There are 120 possible alignments of the 32nd harmonic, in which the *root harmonic* will always be physical. At the 64th, multiply that by 6, i.e., 720 possible alignments! Again, the reason for this is that though the *root harmonic* and all *multipliers* are 2, each represents the potential for a different entity. This is likewise true when the *root* and its *multipliers* are the same odd harmonic; different odd harmonics of course represent different entities. And the factorials produced when all primes are spiritual will bring some counterbalance to this physical increase, just as the addition of physical primes counterbalanced the spiritual increase in our analysis of prime totals. Now, this formula has to be modified when spiritual and physical primes are being combined. Then, the total number of possible alignments gets proportionally divided between them re the spiritual vs. physical nature of the available *root harmonics*. But in all cases the numeric value of any harmonic has no relevance in the factorial formula, only whether it is even or odd.

This explains why the sum of *conditions of existence* in which the *root harmonic* is a physical prime will continue to overshadow the sum of those in which it is a spiritual prime. The sum is not based on the value of each prime in any given product of primes but merely the quantity of spiritual and physical primes. The smallest and only even prime is 2. All others are larger, and the never-ending occasional appearance of new odd primes insures that the pool of numbers available to create further primes from their multiples has values that go to infinity. With that in mind, the greater ability to generate large factorials for either spiritual or physical harmonics would be for the greater quantity of primes that appear in the same product. Even in the small, initial series of harmonics my chart provides, we see the resulting trend. The total number of spiritual harmonics continues to increase, and yet, the total of factorial alignments where the *root harmonic* is physical outgrows the spiritual simply from the quantity of physical primes needed in the same product to generate certain harmonics, a trend my intuition says will continue to infinity.

A final revelation to ponder is the reason the chart goes to the 64th harmonic. Originally I planned to illustrate from 1 to 50, since it was a nice round number and seemed sufficient to establish the 16th harmonic as the Veil between realms. But I soon observed a rather striking graphic symmetry, and needed to continue to the 64th harmonic to do it justice. Placing 32 on each page further accentuated it, and if you allow it to, its perfection will practically jump out at you. It occurs in the arrangement of the physical primes – the bold 2's. Their dispersal and configuration through each grouping of 16 harmonic levels is identical! Personally, I think that is extraordinary. Somehow, in the apparent chaos of the spiritual primes that partake in the products, which hint at symmetry, and the new primes whose asymmetry precludes it from really happening, is this incredible structural order of physical primes. And they provide yet another symmetry I find astounding. For the solely physical harmonics, the cumulative physical primes up to and including that level always equal one less its harmonic number! What is more, these bold 2's maintain the proportion between frequencies in the evolution of octaves (p. 844), reflecting the Universe's harmonic truth as being not just mathematical but musical. (My chart's harmonic pattern as musical truth finds a striking tangible parallel in the depiction of a fundamental's first 31 harmonics found at [http://en.wikipedia.org/wiki/Harmonic_series_\(music\)](http://en.wikipedia.org/wiki/Harmonic_series_(music)). And for readers familiar with fractal geometry, inherent in patterns found throughout Nature, the recursive character of physical primes may seem epiphanic! Indeed, the *Quadralitic Cube* itself upholds fractal recursion – a subject worthy of a future essay.)

An effective introduction to prime numbers appears on the MathWorld web site. The article begins with a brief history of the definition for prime numbers, and the reason the number 1 is no longer included, being that if it were considered prime, the *fundamental theorem of arithmetic* would have to be modified. Further on, the article considers types of primes other than the commonly referred to series of prime positive integers. Formulas for deriving primes are also discussed, giving a glimpse into the complexity of the subject. In this excerpt, concerning the mysterious nature of primes, the original quotation marks and outside references have been retained:

Euler commented "Mathematicians have tried in vain to this day to discover some order in the sequence of prime numbers, and we have reason to believe that it is a mystery into which the mind will never penetrate" (Havil 2003, p. 163). In a 1975 lecture, D. Zagier commented "There are two facts about the distribution of prime numbers of which I hope to convince you so overwhelmingly that they will be permanently engraved in your hearts. The first is that, despite their simple definition and role as the building blocks of the natural numbers, the prime numbers grow like weeds among the natural numbers, seeming to obey no other law than that of chance, and nobody can predict where the next one will sprout. The second fact is even more astonishing, for it states just the opposite: that the prime numbers exhibit stunning regularity, that there are laws governing their behavior, and that they obey these laws with almost military precision" (Havil 2003, p. 171).

[Eric W. Weisstein. "Prime Number." From *MathWorld*--A Wolfram Web Resource. <http://mathworld.wolfram.com/PrimeNumber.html>.]

As to what these laws and their military precision are, is unclear without the original source. The article goes on to note that "prime numbers satisfy many strange and wonderful mysteries." But while explicit prime number formulas exist, "they are contrived to such an extent that they are of little practical value." [Ibid.]

The chart I've provided may not be able to offer to mathematicians a solution to the riddle of predicting primes. But what they do offer is a view of a larger truth that can't be seen in formulas. I'm not sure if anyone has prepared a chart like this. If someone had it probably wasn't based on a harmonic consideration of primes. In that regard I feel my study is unique. But even if mathematicians had assembled it as a mathematical exercise, I don't believe they would have realized what they actually were seeing. It may not even matter to them. After all, they're trying to discover the order in the randomness of primes, and in *A SPIRITUAL APPENDIX* I said *you won't find what you're not looking for because your Mind's eye won't see it.*

But to me the *Big Picture* was clear, due to the perspective I'd chosen and my desire to avoid a preconception of what I might find. The irregular appearance of primes is occurring in the context of the evolution of solely physical harmonics within the alternating of S and S/P *harmonic types*. Mathematically, the series of positive integers needs primes. Whenever the next number in the series can't be generated as a product of what came before, a new prime appears. And likewise musically, the creation of harmonics needs primes for the same reason. Moreover, in either case the appearance of the prime doesn't merely satisfy the need for its own existence, but the existence of any number that would then be derived from it. So, when I spoke of primes as bringing to the Universe structural integrity, their appearance, all in keeping with the *Law of Universal Use* – being exactly what, where, when and how the Universe needs them – makes any harmonically contiguous structure possible at all. And while all odd harmonics – multiples of odd primes – bridge the Balancing Center and thereby provide for the structural integration of Spiritual and Physical Root Realms, only primes do so as a single evolution of harmonics from *Unity* that span the entire range of universal energies. And while we realize that any non-prime harmonic, even or odd, can be applied as the *source harmonic* in the evolution of *conditions of existence*, as we did for *Quadrality*, they are alignment variations of harmonics that can be produced from primes. Though these variations are significant in allowing the Universe to accommodate even more *conditions of existence* than can be derived from primes alone, there is no other way to arrive at a *prime harmonic* except from *the Source*. So, even though the *source harmonic* for the *1st group* can be, and based on my chart usually is, a multiple of primes, it is the Universe's need to generate larger primes that is the *driving force* behind that expansion.

The factorial process I used to determine the cumulative alignments re spiritual vs. physical *root harmonics* – each of which sets the root nature of its alignment's lineage – only concerned primes. All *source harmonics* were resolved to them, and I excluded variations possible when non-primes are combined to arrive at the same *harmonic number*. Primes establish the underlying harmonic framework of creation. My intuition for variations in which the first is a solely spiritual or physical non-prime is they follow the same trend as the primes. As to non-prime variations equivalent to combinations formed from a product of even and odd primes, the results will be even but uphold both spiritual and physical natures. If that occurs for the first harmonic in a series, it can't be assigned to one nature or the other. While created direct from *the Source*, it harmonically aligns to an equivalent combination regardless if the *root harmonic* is spiritual or physical; i.e., a *source harmonic* of 6 aligns to 2×3 and 3×2 .