## AN ESSAY ON THE SYMBOLISM OF NUMBERS AND INTERVALS IN THE COMPOSITION



## HARMONY comes from the Greek, "pertaining to music". It is the science of measure (number) and value (tone).

Once Pythagoras had discovered how to express the relationship between a tone's pitch and the length of a plucked string in numeric terms, it became possible to link quality (tone) to quantity (number). Furthermore, the inverse process became equally important: starting with a given length of string, the intervals obtained numerically could be shown to correspond to particular psychic and emotional values. In other words: one could "hear" the relationships between numbers. The two principles, measure and value, become conjoined in a single identity, where each mirrors the other: the length of the string reflects the perceived emotional charge of the tone (quality), and the tone generated echoes the length of the string (quantity). Matter takes on spiritual value. The spiritual can be measured, becomes calculable. Number and tone are symbols of the same identity. Their dual natures are bridged by intervals, joining matter to spirit. The dualistic conception of the Pythagoreans – that both the quantitative could be deduced from the qualitative and, vice-versa, the qualitative from the quantitative has been lost over time, due to the development of Western science which champions quantity over quality. A reappraisal of the inherent qualitative essence of numbers has recently begun, but only in its negative aspects (for example, an excessive emissions lead to a drop in quality of life). Similarly, a quantitative concept of structure is invariably the starting point for analyzing a piece of music. The analysis starts with the relative positions of individual notes, and never with their qualitative essence, which instead derives from intervals, insofar as intervals determine proportions, numbers and symbols, and render archetypes symbolic.

As we have seen, Pythagorean theory is founded on a different conception: the simultaneous mathematical and philosophical explanation of an acoustic event. It was still within this framework that Kepler attempted to explain the harmony of the cosmos, to "peep over God's shoulder". At some point along the way, however, we abandoned that framework to embark upon a more practical approach to music. Over time musical development has increasingly focused on a horizontal conception of notes (melody, tempo, dynamics) at the expense of a vertical conception: intervals and their philosophical significance. Numbers have suffered the same fate: purely quantitative aspects have been championed over the qualitative, whereas the original theory sought a joint understanding of both concepts in equal parts: the fundamental scope was to elucidate the symbolism of the "tone-number". In other words: the interval conceived as audible mathematical proportion.

Warriors always move in formation. I've tried to render the momentum of this formation musically, from a geometric, harmonic, and numeric point of view. Geometrically, in addition to the point and the straight line, I used the three basic forms: the circle, the triangle and the square. In inscribing an octave in a circle, it follows that each semitone corresponds to 30°.

**Zero,** insofar as it is the preconscious number of totality, denotes the sphere, which in musical terms represents the infinity of primordial sound and silence. Within this total chaos are contained, on one hand, an oneiric awareness of all conceivable music and, on the other, the formless nothingness of a chaotic noise as yet undetermined by a musical sign.

The big bang, when noise becomes music, is the moment at which the *One* enters into the Zero, the moment when the quantifiable one crystal-lizes into the unquantifiable totality. Composing is born, and thereby also music. In the symbolism of numbers, both in the Western world and in China, One means the indivisible totality, the unity. The very fact that the sequence of numbers starts with One and continues indefinitely links the idea of one to the infinite. One therefore has bivalent properties: quantitatively it is the unit of counting, and qualitatively it contains within itself the entire series of numbers. Unlike other numbers it does not increase when multiplied by itself nor diminish when divided by itself. It is the only number whose sum, when added to itself, is greater than the total when multiplied by itself. It is also the only number that doesn't follow upon another, and is unique in not being considered a prime number.

One is represented by the point. And just as a straight line is a continuum of points, so also One is the continuum of all numbers. The first warrior is the leader. All follow behind him, the rearguard and the cover. The collective strength of everyone is therefore at his command. His power, with his horned helmet, thrusts in an upward direction.

Two is the first of the class of numbers capable of increasing or decreasing themselves. It is also the only number whose sum when added to itself is equal to the total when multiplied by itself (a latent characteristic also of Four). Pythagoras based his proof of infinity on the square root of two, and associated infinity with the irrational. In every instance of duality is implied an observance of "sameness" or difference. Two also

represents symmetry and polarity, and the dual. The second warrior closes ranks. His power thrusts in a different direction, from top to bottom. The rearguard, like the leader, is connected to everybody. In musical terms I don't consider Two to be the antithesis of One. Rather, I consider One and Two as autonomous entities, in the manner of the point and the line. It is only with the advent of Three that One and Two establish a position and tension relative to each other. This tension does not mean opposition, since their positions are as yet undefined by the presence of other numbers. It follows that, considered on their own, the distance between them is always maximal, regardless of how near or far they are from each other. Symbolically One is unitary and indivisible. Consequently Two symbolizes the division that is already potentially inherent in One. Since One is indivisible, I think it is completely wrong to designate, as often happens, One as male and Two as female. For the same reason the good can not be completely good nor the bad all bad: if One is the totality, then Two is already contained in it. Duality only manifests itself in Two, but is already contained in One. Just as light creates shadow, so also "one" contains the "other". Thereby all that is intermediate is conceived, in the same way that day and night conceives the dusk.

The first bars of the second warrior are somewhat heroic, because I'm fascinated by his courage in breaking free from One.

able as a unit.

Three incorporates the consciousness of the first two, and positions them in relation to each other at last. In fact, One can not be unity, because it is the totality. And Two, being symmetrical, is polarized. This is why, both in the West and the East, Three is unity. The trinity represents complete harmony: from the Father the Son is born, and from the unity of Father and Son the Holy Spirit is born. Thus One becomes recogniz-

In the Chinese version numerical progression starts with Three. Similarly, in terms of musical development the divergence between the first and second is preliminary to the onset of the third. This happens on two levels: firstly by combining the themes of the first and second warriors, and secondly by breaking up the octave into three equal intervals of major thirds. The chord formed by the union of these three thirds has a double effect: on the one hand it suggests sturdiness, and on the other it is marked by a strong centrifugal force corresponding to the concept of Three. This, in turn, reveals the highly-charged dynamic tensions between a forward-looking quantitative linearity and a retrograde qualitative aspect that looks backwards: the trinity initiates reunification and resolution. It takes three notes to make a chord. For example: C-G is an interval, but C-E-G is a chord which neutralizes the tensions created by C-G.

Four has immense significance as probably the most important organizer, pro- and archetype of our sphere (for example the cardinal points, the four elements, the seasons, the number four in physics, in religion, in psychology etc.). The topic is potentially unlimited. In virtually all the sciences, from mathematics to hereditary genetics, from psychology to theoretical physics, from the most advanced research to the myths of almost all ancient cultures, Four is always conceived as giving order and wholeness. The shift from Three to Four is not the addition of a new quantity; rather, it is that Three, when recognized as unity, becomes the fourth. Qualitatively, the "proto-one" returns again as fourth, but remains the "proto-one".

In the symbolism of numbers Maria Prophetissa's famous alchemical formula states "one becomes two, two becomes three, and out of the third comes the one as the fourth". Christ expresses this concept as following: "When three of you are gathered together, I (the principle as fourth) am there amongst you". To sum up: Three, taken as unity, is Four. Accordingly I didn't introduce a new theme in my composition. The fourth warrior's music is engendered by the union of the first three motives. The theme of each warrior emerges in the context of three bars reaching the number Ten. The theme of the first warrior is 3/4/3 quarter notes, that of the second warrior 3/3/4, and the third 4/3/3. This is a reference to the figure of the "Tetractys", the Pythagoreans' sacred symbol of Four. The octave is now divided into four identical intervals of minor thirds. The second warrior's theme is more prominent than the rest, as is its pace, an understated reference to the "fourness" of Two.

The theme of the *fifth* warrior is also not wholly new, but draws on the first three, united in the fourth, thereby becoming the quintessence, or quincunx (the central point of four points in a square), which is the consciousness or awareness of the whole. As, for example, the seasons (4), reveal the cyclical nature of the year (5-quincunx). This brings us back to the retrograde qualitative aspect of numbers, since the quintessence is not a fifth element added to the fourth, but rather the realization of the unity of the fourth.

The interval of fourths dominates the entire piece. This symbolizes the power of the unity of four. The theme of the third warrior, which defined and conjoined the first and second, now returns as unifying substance to claim its full splendor in the fifth.

## Partial synopsis:

As we have seen, the first four numbers regulate and bring order to chaos, and four makes this apparent. One, "the totality", therefore contains also chaos; Two divides it, creating symmetry and polarity, and is in turn centered and restored to a dynamic sequence by Three. Lastly, Four stabilizes and renders the whole visible, and Five is the collective continuum which mirrors the "proto-one" without actually being it. The totality (1) becomes separate (2) and the tension of opposition generates a dynamic process (3) of such intensity as to have unlimited creative potential. 4 however, is its principle, and 5 its meaning. In my diagram the quincunx is located at the intersection of the two axes and of all the geometric forms.

The addition of the first three numbers, 1-2-3, gives the same total as their multiplication: a double-three. This property expresses the form and structure of the number *Six*. In subdividing the interval of Three (major third), six intervals of major second are created, which in relation to the octave form a whole-tone scale. One could add that by subtracting warrior 3 (major third) from warrior 9 (major sixth, which completes the octave), one ends up with (9-3) warrior 6.

In geometric terms, Six corresponds to a double pyramid which, from a compositional point of view, I develop by doubling up the themes of the third warrior, the first forwards and the second in reverse. In imagining a pyramid we see not only a triangle, but a three dimensional form in space. Indeed, in numerology Six often symbolizes space.

The problem of *Seven!*In harmonics, the fraction of the seventh occurs at the point where the ratio of fraction to basic tone surpasses the Tetractys, the sacred number of 10. It also disrupts the regular progression of ratios that precede it (first 1/1, fifth 2/3, fourth 3/4, major third 4/5, minor third 5/6, –!???! – major second 8/9, minor second 9/10) – 7/8 is missing! In fact the seventh has a ratio of 15/8 in relation to the basic tone. And when Guido di Arezzo very first gave notes their names, the seventh was omitted. For some reason, the seventh is difficult to grasp at first. In my geometric design Seven is star-shaped, the most complex form.

It is therefore understandable, why the Seven symbolizes the transcendental in the Kabbalah and why Moses' candelabra with seven branches was featured on Christian altars throughout the middle ages: it is out of the desire to pray to the infinite eternal, which surpasses our understanding and our senses.

In numerical symbolism Seven is often thought to stand for "completion", the "whole", "plenitude" and "perfection," insofar as Three is attributed to the divine and Four to the earthly. Twelve is considered in the same manner as a result of multiplication rather than addition. My conception of numerology is opposed to this view insofar as numbers, being organizers and archetypes, should act in totality, in both the divine and the earthly spheres. The question, rather, should be the following: what came first, numbers or the creation?

So Seven remains mysterious to me; beyond the senses. I was moved to consider the possibilities contained in its ambiguity. Musical creation no longer originated from devising a concept, but instead was purely conceived through feelings. The result is a very symmetrical theme, as it happens consisting of 6 notes (the double pyramid that becomes Seven). The two external intervals are minor seconds. The two internals are minor thirds. The central shared interval is a major third. When associating such the following becomes apparent: the minor 1st divides the major 1st, the interval of the number Six. The 4th warrior's minor 3rd, and the 3rd warrior's major 3rd, therefore contain both quantity and quality of 3+4=7, and taken together with the external intervals 3+4+6=13. In my geometric design the circle of Thirteen (where Seven is situated) represents the frontier between the finite and the infinite, or, in other words, redemption. (Indeed, Christ occupied the 13th seat at the last supper).

8

*Eight* is situated diagonally across from Four in the circle of the octave, and is therefore its dual. In the geometric design, Eight is located on the furthest reach of the horizontal axis (consciousness).

According to the Chinese tradition, all of "being" is represented by eight primordial elements. According to the IChing there are eight possible permutations (Pa-Kua) of double triplets. The Egyptian account of ge-

nesis speaks of four couples of gods that created the beginning. In Nordic mythology Wotan's horse has eight legs.

Justice, too, is associated with the number Eight: in Germany eight judges had the power to either absolve (achten) or condemn (aechten) the accused. Both words come from "acht" (eight). In most European languages there is a link between the word "night" (symbolizing the subconscious) and the word "eight" (symbol of consciousness). In Italian "otto" – "notte". In French "huit" – "nuit". In German "acht" – "nacht". In English "eight" – "night". In Spanish "ocho" – "noche". As is evident, in all of the above languages the difference between the two words stems from the addition of the letter "n", which refers to "not, negation". And thus night symbolizes the negation of consciousness, or the subconscious.

In musical terms my treatment of Eight, the dual of Four, has as its starting point a basic interval of major sixth, the interval which completes the octave with the minor third, which, as we have seen, in turn represents Four. Furthermore, the piece develops the theme of Four in reverse, culminating in the theme of Five (as a reprise of the theme of Three), thereby establishing a connection (5-3-8) that symbolizes being and its beginning of consciousness.

In the circle of the octave *Nine* is symmetrically opposite to and the symmetrical angle of Three. Three major thirds make up the octave, and two major thirds make up the minor sixth which is the interval of Nine. This reinforcement of 3x3 and 2x3 has deep symbolic meaning for initiation rituals: 9 muses, the 3 days and 3 nights spent in the 9-branched ash tree by Wotan before he discovered the runes, the 9-headed Hydra, the 9 beatitudes of the Sermon on the Mount etc. Given that in my geometric diagram Nine is situated, on the one hand on the "finite-infinite circle" (13) and on the other hand in the circle of the octave, where it is subject to an intense dynamism of three, Nine representing transition, the new, and time in general. This is probably why in most European languages there is a link between nine and new. The score for this piece is 99 bars long; the theme is 3 bars and contains elements of warriors two and three, the latter always in an interval of minor sixth.

There are other elements characteristic of the number nine and the reinforcement it receives from Three. The composition is marked by a dynamic intensity, which is based on a simple triad chord, specifically the tonic, dominant and subdominant (3x3). The starting melody is sampled from one of my songs from the '70s, "Love me or leave me," a title that perhaps alludes to a moment of conflict and the ensuing transition towards a new life.

Ten: entirety! If One is the totality, the Hebrew "echad", beginning and end (if multiplied it generates no numbers other than itself), and at the same time the genesis of all numbers, then Ten is the entirety. In this regard, it is my opinion that the number 10 should be written differently. The 0 should encircle and surround the 1 - which is exactly how I've rendered it in music - instead of being placed to its right. The themes of number 10 encircle the motifs of 1 (the one continuum). At the same time, as at the beginning of the piece, we hear a dodecaphonic series. It is formed by the intervals complementary to motif One, which is manifesting totality (1) and entirety (10). In my composition for number Ten the basic interval is a fifth. This might seem surprising, since in numerology there is no link between Five and Ten other than in Roman numerals where X is a double V. But in my circle of the octave Five and Ten are complementary intervals. So if I represent Five as the essence of Four, expressed geometrically as the Quincunx, and turn it inside out, a circle is thereby created around the quadrant of the first four numbers, which turns out to be an elegant variation of the "Tetraktys". Linguistically, we could extrapolate that Five is the kernel of Four, and Ten is its encasing.

To demonstrate my great respect for Ten, the Tetraktys (which for the Pythagoreans was the "pure symbol of the holy number four,") I wrote the entire piece in Phrygian and Lydian scales, with two variations on the first and second Delphic hymns, and a coda with the theme of the fifth warrior.

A symbolism of numbers should in theory reach completion with the entirety represented by Ten. Daniel Spoerri, however, made thirteen warriors, and by subdividing my octave in the circle I obtain thirteen intervals. I account for this non-coincidence as follows: the numbers over Ten are constituted by the qualitative combination of their individual numerals, rather than by a quantitative progression. For example: quantitatively 12, qualitatively 1|2 or  $3 \times 4$ .

11

At first it would seem that *Eleven* does not allow for such a combination (1|1), because one already contains the totality and the whole. There is, however, an interesting Chinese theory according to which Eleven has its origin in Five and Six. Thus Five, the symmetrical middle of the odd numbers between One and Ten, added to Six, the middle of the even numbers, becomes

Eleven: the symbol of the "way of the Tao".

Musically, the somewhat rough start of the piece symbolizes the difficult path followed by Buddhist monks, a slow progress beset with troubles. This path is then transformed into a speedy highway in a mere 11 bars. These might be the 11 days that separate the 365 days of the solar calendar from the 354 of the lunar calendar or maybe the 11 ecstatic and "imperfect" days of carnival? In bars 32 and 33 the frenetic speed dissolves into the notes that draw properly an "11" in the score. After the next, rather meditative, section (bridling ones passions?), the two pianos are dramatically called to attention by the percussion, and compelled to rejoin the piece. The dominant interval remains the major seventh, and the motifs correspond to the Taoist path, as symbolized by warriors 5 and 6.

12

In my diagram *Twelve* is the axis of symmetry. On it lie 1, 2, 5, 6 and 7. They add up to 21, which is the mirror and inversion of 12 (12|21). The axis of symmetry divides all of the diagram's geometric forms, and the Quincunx is at its center. If Two represented an as yet indeterminate dualism, in that it lacked a point of reference, now Twelve can be seen to be the manife-

station of true dualism, since it is defined by all the numbers that exist thus far. This is, therefore, where male/female, dark/light, good/bad etc. are located. Twelve is a complete number not so much due to the multiplication of 3 x 4, (the divine and the secular – see description of 7 above), but because it unifies opposites and can reconcile the dual in its entirety: the union of male and female as an act of creation; the union of the summer and winter in the 12 months of the year, the union of 12 hours each in a cycle of day and night, the sphere of the zodiac, the union of 12 tones in an octave etc. And the tarot card number 21, which is the mirror of 12, has as its symbol the complete union: the hermaphrodite. Heroes often traveled in groups of a dozen: Siegfried goes to Worms with 12 companions, and then sails for 12 days and 12 nights to Iceland to confront Brunhilde; the twelfth seat at King Arthur's round table was left vacant for the knight destined to find the Grail; the Epic of Gilgamesh is told in 12 books, and Hercules is subjected to 12 trials in order to attain immortality. Twelve is also a number favored by the gods: in Greek mythology there are 12 gods of Olympus; In Asgard, the heavens of the Germanic gods, 12 Assir surround Wotan; there are 12 tribes of Israel. Lastly, there is a rich Christian mythology regarding the number 12: the 12 apostles; in John's revelations the New Jerusalem is built on 12 foundations with 12 doors guarded by 12 angels, and there will be 12 times 12 thousand chosen people who will reside in Zion.

Musically I tried, above all, to give an entirety to the themes of warrior One united to those of warrior Two, by means of the interval attributed to Twelve, the minor seventh. In fact, I express the duality by means of a subtle, latent Milonga rhythm (albeit a very "libero" and extremely "nuevo" one). For what better succeeds in unifying diversity than a Tango, where male and female find themselves joined together in the entirety of a dancing couple?

13

And now we've reached *Thirteen:* our time is up. As for Oinomaos in the Greek epic, whose time ran out when his daughter's thirteenth suitor defeated him in a chariot race.

Originally, Thirteen was a positive, sacred number. In matriarchal cultures, where the calendar followed the lunar cycle, there were thirteen months. With the introduction of the pa-

triarchal solar calendar and its cycle of Twelve, Thirteen became diabolical – as it often happens to the values pertaining to earlier and supplanted cultures. And Friday, which honored the goddess Freya, much like the Italian "venerdi" is connected to Venus, was undoubtedly more a day of pleasure than unlucky Friday the 13th!

However, Loki, the thirteenth Germanic god, precipitated the decline of the gods with his betrayal of Baldur, the god of Spring, Asgard's favorite. In the Bible the end of the world commences in the thirteenth chapter of the apocalypse, and in tarot cards Thirteen is Death.

The significance of Thirteen is expressed by the image of a wheel: if the twelve months of the year or the twelve signs of the zodiac are the twelve spokes of a wheel, then at the center of the wheel is the hub, Thirteen. This unifying point is the position taken up by

Christ at the center of his twelve apostles. Thus Thirteen is also an essence, much like the Five in the Quincunx, which in being rotated outwards becomes a circle, a symbol of the Tetraktys. This is why my geometric diagram shows Thirteen encircling all the forms like a circumference: it symbolizes the end of a cycle, liberation from the temporal sphere and the passage from finite to infinite. It is therefore evident that Thirteen has quite unjustly become the taboo-number of the devil.

There is clearly a strong connection between the two circles (10 and 13). This is why the thirteenth piece starts with the theme of the tenth warrior. (Here it should be remembered that the tenth theme is composed of the notes generated by the intervals that complete the octave in relation to the first theme.) The development of this piece is based mainly on the first and third warriors; the interval generated by Thirteen in my diagram is the Triton. Thus a remarkable coincidence arises from my conception of numbers and intervals: for in the same way that the number Thirteen became taboo, so also the Triton was the forbidden interval, Diabolus in Musica. The composition ends with the theme of the fifth warrior: the center of all geometric forms.

n conclusion, I'd like to return to the number Zero: that which contains all numbers, the primordial ordering of material and spiritual processes. Generally speaking, I feel that spirit and matter are too vague as concepts. I prefer to think in terms of "material essence" and "energetic essence". By the former I mean everything created, including substances like gasses, the air etc. The latter I take to mean psyche, energy, qualities.

The work of C. G. Jung has demonstrated the synchronized behavior of the material and energetic essences. If this is the case, then both must share in some common antecedent organizers or archetypes. These proto-organizers or archetypes can be deciphered through numbers. But even though these numbers are in and of themselves abstract concepts, they become concrete by means of our senses: visually, through geometry, and acoustically, through intervals. Their sublimation engenders, respectively, the visual arts we see and the music we hear. When Pythagoras purports to hear the harmony of the spheres, or Kepler describes the orbits of the planets as "harmonices mundi", or Goethe's sun rises to its eternal sound, they are all correct, in that they are expressing the very nature of sound. Indeed, the mediation between the material and energetic essences occurs in accordance with the intervals derived from the numbers formed within the Zero, and which are antecedent to everything.

These archetypes do not manifest themselves as solitary, single forces, but are mixed up in conjunction with others – in the same way that one interval does not constitute a chord, but requires two or more intervals. This reciprocal contamination and influence makes it difficult, if not impossible, to come to any absolute truths about the symbolism of numbers and intervals, which accounts for the great diversity of numerological philosophies. It is interesting to note, however, that almost all of these philosophies concur and agree up to the number five. A higher number means a greater divergence. I don't

see this as a weakness, but rather as evidence of the multiplicity of possible interpretations. There is no single truth, but, rather, many truths. Of greatest importance, it seems to me, is compactness, the coherence and a logical system of thought. A symbolism of numbers, geometric or harmonic, must find resolution in itself, but without claiming universal validity. The system of thought must be conclusive, and will be distinguished from other systems according to the priorities ascribed to it by the observer.

Of course true symbols can not be invented as such; at best they can be discovered. Indeed, we do not create them; at best we can only become conscious of them. In any case, I think that we only find what we want to find, and we become aware only of those things we'd rather not leave languishing in our subconscious. In dealing with numbers, intervals and forms, we undoubtedly gain a deeper understanding of a concept that Pythagoras expressed in his "Golden Verses" as follows:

Thou shalt likewise know that according to Law, the nature of this universe is in all things alike.

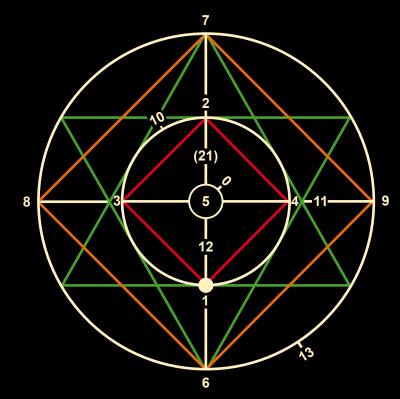
NO.	WARRIOR	INTERVAL	MONOCHORD RATIO	ANGLE IN THE OCTAVECIRCLE	NO.		COMPLEMENTARY INTERVAL	ANGLE	DIVISION WITHIN THE OCTAVE	GEOMETRICAL SHAPE
o	-	~	~	~	0		~	~	~	Circle
1	Tarquinii	First	1/1	0°	2		Oktave	360°	~ (major)	Dot
2	Cortona	Octave	2/1	360°	1		First	0°	~ (minor)	Line
3	Vetluna	major Third	5/4	120°	9		minor Sixth	240°	3 major Thirds	Triangle
4	Volsinii	minor Third	6/5	90°	8		major Sixth	270°	4 minor Thirds	Square
5	Velthune	Fourth	4/3	150°	10		Fifth	210°	2 tetrachords + Mese	Quincunx
6	Cisra	major Second	9/8	60°	12		minor Seventh	300°	6 major Seconds	Double Pyramid
7	Aretium	minor Second	8/5	30°	11		major Seventh	330°	2 min. 2nds + 2 min. 3rds + 1 maj. 3rd	Star
8	Poplunia	major Sixth	5/3	270°	4		minor Third	90°		horizontal Axis
9	Parrusia	minor Sixth	8/5	240°	3		major Third	120°	(Triad)	Square
10	Velathri	Fifth	3/2	210°	5	•	Fourth	150°	(Phrygian & Lydian)	Tetraktys circle
11	Chamars	major Seventh	15/8	330°	7		minor Second	30°		Tao triangle
12	Velh	minor Seventh	9/5	300°	6		major Second	60°	Male (maj.) + Female (min.) => min. 7th	mirror Axis
13	Veji	Tritone	45/42	180°	13		Tritone	180°	2 Tritones	finite and infinite Circle

TOMMY FORTMANN was born in Switzerland and became a successful songwriter during the 70s. He wrote his first "Hit" at the age of 16, which was followed by over a hundred titles released in more than 27 countries. Famous German Rock stars such as Udo Lindenberg, Love Generation, Jürgen Drews and others, but also British artists such as Alexis Korner or Italian singer Daniela Davoli recorded his songs. He composed the music for the musical Tell (1977), which created a scandal amongst the Swiss. The record made it into all German-speaking charts. At the age of 26, Thomas abandoned his career as a Rock musician and dedicated himself to further studies in composition and instrumentation. This period formed the foundation for the following various chamber works, the two symphonies Pythagoras and Aion, the Oratorio Francescano, and the three music-plays: Sommerfrau & Winterwolf, the Cross and the Rooster and Collodis Pinocchio. He received scholarships and commissions from the towns of Zurich and Bern, the Swiss government, the European Union, the Opera of Zurich, Open Opera St.Gallen, Mozart Festival Trento and many others. In the mid' 80s Thomas and his family moved to Tuscany where he founded the Accademia Amiata and its Festival "Toscana delle Culture".

The music of Tommy Fortmann does not subscribe to any particular school of thought. He studied the various composition techniques, but being the autodidactic person he is, he maintained a critical point of view towards them. It lead to the development of a notably personal style, often uniting different, sometimes even contrary impulses of the modern. Formalistic ideas seem to serve him mainly as a method of transportation and play, resulting in very original ideas, like for example: the 'complementary twelve-tone technique'. It is, however, always important to him, despite the frequent use of complex structures, to directly communicate with the listener and make an emotional impact:

"Composing is an adventurous journey. However, street signs should not be the nucleus of such a journey. Therefore, form has to serve the structure and expression of a piece, not vice versa!"

## GEOMETRIC DIAGRAM



MUSIC TOMMY FORTMANN

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PUBLISHED BY PATOS GMBH WWW.PATOS.CH

MANUFACTURED BY SUONIX GMBH OBERDORF 6, 5040 SCHÖFTLAND, SWITZERLAND PHONE +41 (0) 61-976-2080. CONTACT@SUONIX.COM WWW.SUONIX.COM





