

A STUDY OF MUSICAL ARCHETYPES: (I) THE SYMBOLIC OF NUMBERS

Corneliu Dan Georgescu

“Music can be only described metaphorically”¹

1. Twenty-five hundred years ago, Pythagoras stated in his *HIEROS LOGOS* the idea of the *Number-Archetype as a supreme principle of the Universe* (“all things are ordered by numbers”) and the idea of *Music* (“*Mousikē*”) as a *measure of the universal harmony*². For Plato, the Number represents the *highest degree of knowledge, knowledge itself*³, the *essence of the Universal harmony*⁴; to the idea of *Numbers-Archetypes* he adds the idea of *Form* (i.e. the number reflected in geometry), then the *Proportion* or, more generally, the *Analogy*⁵. The realms of *Numbers* and of *Forms* are not distinct; they are but the aspects of the Universe governed by the laws of proportion⁶. However, the Mediterranean cultural area was not solely responsive to the virtues of the Number. About 5,000 years B.C., in the Far East, *YI KING* (or “The book of transformations”) — which was assessed by C. G. Jung as “the most beautiful collection of archetypes”⁷ — used numbers (eight trigrams formed around the fundamental binary opposition *yin-yang* and their combination into sixty-four hexagrams) as a basis for a unitary system including life with its complex mobile manifestations, a “true alchemy of concepts”⁸.

2. The idea of *Number* is apparently the core of the entire contemporary epistemology⁹; Gottlob Frege and Bertrand Russell gave a logical analysis of the number which underlines the history of the human effort to understand its own method of cognition. The natural number may be defined by its *extension*, like in set theory. It may likewise be defined by its *intension*, or its logical content, its “substance”: the *principle of identity*¹⁰. The number means knowledge, sensible experience (whose symbol, sign and name it is), unmediated intuition of reality; it is not only the outcome of an operation (i.e. the quantitative definition of the object) but also the result of thought in which the operation is only the form assumed by thought: the direct, concrete, “vertical” relation of identity¹¹. Together with Space, Time and Motion, the Number may be considered as a fundamental category of knowledge¹².

3. Carl Gustav Jung defined the number in psychological terms as being both an aspect of the real and physical realm

and of the imaginary and psychic realm. Above the conscious level, the numbers are numeration; below, they are autonomous psychical entities of quantitative relevance which manifest themselves in orders anticipating any judgement¹³. Among the other archetypes, the numbers hold a peculiar position: they can be symbolically expressed through a figure (i.e. through a real, concrete, commensurable, hierarchised element), which does not mean that their essence is thus exhausted.

4. Hence, the numbers are not mere arithmetic expressions, but *distinct individualities, ideas, forces, supports for symbolical developments, eternal principles of truth*¹⁴: the principle of monad, dyad, triad, tetrad, pentad, etc.¹⁵ Like Plato, Nicomachus distinguishes between two kinds of numbers: the *divine Number* or the *Number-idea* (the governing archetype of the entire Universe) and the *scientific number*¹⁶; with the Pythagoreans, the science of numbers would include *arithmetic* (the “mystics” of the number), *arithmetics proper* (the scientific number viewed as an abstraction) and *computation proper*¹⁷. In a different approach, *arithmosophy* would deal with the profound meaning of natural numbers, in distinction of *arithmetics*, *arithmology* and *arithmomancy*¹⁸. On the other hand, all that abides by *Measure* and *Number* (the relation between numbers, surfaces, bodies, etc.) is — in the Pythagorean con-

ception — *Mousikē*, a notion denoting an *essence of Universal music* (or *musicality*) and includes *rhythm* (which creates *space* and *time*, concepts that can only be experienced by the subject in its presence)¹⁹. Together with *Arithmetics*, *Geometry* and *Astronomy*, *Mousikē* forms the *Pythagorean Quadrivium* which reminds us of the condition of music viewed as “the goal of the supreme aspiration in any art”, as “the spiritual essence of an epoch”²⁰.

5. In what follows, we shall consider in compliance with the Pythagorean theory (accepted in principle also by C. G. Jung) that *the numbers are archetypes*, hence they are notions irreducible in their essence, archetypes symbolized by figures (0, 1, 2, 3, 4, 5, etc.). Obviously, each number may be assigned various interpretations (especially as regards their concrete applications as a “carrier” of ancillary symbols in particular cultural areas); however, they may have their own value which is communicated to the object²¹. It is on this abstract value that we shall focus our attention in the sequel. The high degree of abstraction itself of numerical archetypes allows the use of the latter in such contexts where they act as “vehicles of spiritual concepts”, as a “support for any representation of the sacred”²².

6. We shall briefly outline the general symbolic of several numbers.

ZERO (from the Arab. *ḡifr*, which by latinization becomes *zephirum...zefro...zero*, with the Greek variant *tziphra* leading to *cypher*)²³. Numerical sign devoid of value in itself, standing for another absent value or lending value through its position. It symbolizes: the empty space, hence the multitude of potentialities, the polar-conversion instant (which would separate the evolutive from the involutive cycle), the point whencefrom cyclic regeneration commences²⁴. Contiguous concepts: quietness (the prelude of an action), chaos (the primordial emptiness devoid of order and time), inexistence, darkness²⁵.

ONE (from the Sanskrit *eka*, “existing alone”)²⁶. This is a peculiar notion, the irreducible root of the concept of number viewed as a collection of units²⁷. It symbolizes: the principle of micro- and macrocosmic individuality, singularity, non-division, solitude, the supreme limit-unit of the Universe²⁸, eternity, the abso-

lute, equality, self-identity of the Ego, concordance, sympathy²⁹, the non-manifested principle, the source and end of all things³⁰. The revelation of Unity is always the substance of all initiation³¹. Unity tends to disintegrate onto plurality, which, in its turn, tends to Unity (“From the multiplicity of things derives the One and from the One — the multiplicity” — Heraclitus)³². Contiguous concepts: the point (the origin, the core), the centre (the place of concentration, the regulating law), the crossing (the intersection, the cross, the centre), the circle (the undivisible entirety, time, the sky, the cyclic movement, harmony, perfection — expressed through a ring, bracelet, wheel, etc.), the disk (cohesion, the solar), the sphere (the form accomplished)³³.

TWO (from the Skt. *dva, dve*)³⁴, symbolizes: the essential primary division of the initial Unity whencefrom all the others derive (spirit/matter, life/death, sun/moon, male/female, etc.), the opposition, negation, distinction, relative differentiation (through binary polarity, antithesis), the antagonistic or attractive reciprocity, the division, the couple, the antinomy, contradiction, conflict, ambivalence (the germs of creative evolution or of disastrous involution), the female passive principle, the effort, strife, tension, the multiplication principle, imperfection, dismemberment, loss of Unity, the accidental cause of the Universe³⁵, the concept of “the same and the other”, the discrimination, inequality³⁶.

THREE (from the Skt. *tri*, “to introduce, to add”), An odd, prime, “triangular” number. It symbolizes: organization, activity, creation, conception, law, the series (accounts for the formation rule of succession that cannot be revealed by only two terms), dynamism, the retrieved, perfectly manifested Unity (exceeding the binary difference), the idea of order, gradation, harmony, synthesis³⁷, the conjunction of ONE with TWO (the union of the sky and the earth), expression of totality, accomplishment, reunion, the creative male principle, time, the sky. Contiguous concepts and symbols: the trigram (the essential unity in YI KING), the triangle (the archetype of the spirit, the trinity), the pyramid (in combination with FOUR).

FOUR (from the Skt. *catur*, “to distribute into pair groups”)³⁸. A “square”,

even number. It symbolizes : nature, the measure of revolute cycles, double negation, the form, the limitation, space, the static order or frame, solidity, firmness, the static equilibrium, the field of manifestation³⁹, the terrestrial, the tangible, the material, plenitude, totalization (the Universe in its material entirety), potentiality, the matrix, kernel, origin, femininity, the archetype ground of human psychical equilibrium with C. G. Jung. Contiguous concepts and symbols : the quaternity (that may be expressed in the four cardinal points, month phases, seasons, matter : earth, water, fire, air), the Pythagorean holy tetractys (considered as the "key to the Universe", perfection, the sacred), the square (the earth, stopping, stagnation, solidification, horizontality, the materialization of the idea), the cross (space totalization, orientation support, the union of the contraries, the world in its entirety — one of the fundamental and, apparently, the most totalizing universal symbol besides the centre, the circle, the square), the cube (the square of the square)⁴⁰.

FIVE (from the Skt. *pañca*, "stretch out the hand")⁴¹. It symbolizes : the living matter, life, man, the limits of the natural world, the field of action (by adding the centre to the square), the active principle regulating the play of the four elements (the quintessence), creative act, phase, transition, activity, individuality, union, accomplishment, marriage (the hierogamy of the female principle **TWO** and the male principle **THREE**), love, reproduction, sensibility⁴², the generation, the perfection of the human body, the centre, the core, the dynamic equilibrium, the Universe manifested (Yin-yang conjunction), the existence. Contiguous concepts and symbols : the centre of the square, of the cross, the pentagram-including the star-pentagon (the five-points star, traditional emblem of the microcosmos, of androgeny), the five senses⁴³.

SIX (from the Skt. *ṣaṣ*)⁴⁴. A "perfect", "triangular", even number. It symbolizes : equilibrium, beauty, providential harmony, karma, trial, justice, destiny, stability endowed with inner mobility, motion within the motionless (as a ternary double : the indefinite equilibrium between two actions, ternary organizations)⁴⁵, mediation between principle and manifestation, the macrocosmos, the universal, totality in its three-dimensional represen-

tation (**FOUR** represents the horizontal space — North, South, East and West, to which the vertical axis adds — Zenith and Nadir). Contiguous concepts and symbols : the hexagram, the star-hexagon (the star with six points or "Solomon's seal", a true *summa* of the hermetic thought)⁴⁶.

SEVEN (from the Skt. *sapta*). It symbolizes : progressive seriation, chronological or qualitative gradation, evolution (the measure of the evolving cycles of a spiral type), continual progression, dynamic perfection, change of direction at the end of a cycle, positive renewal (viewed as **SIX + ONE**), self-awareness of creation (viewed as **FIVE + TWO**), totality of the Universe in motion (viewed as **FOUR + THREE**), totality of time and space, motion, total dynamism. Contiguous concepts and symbols : the star-heptagon (the star with seven points, which signifies a certain relation between the seven days of the week or between the seven sounds of the diatonic scale). This is the number which favoured most of the symbolical, mythological applications⁴⁷.

EIGHT (from the Skt. *aṣṭa*). The first "cubic" number. Symbolizes : central, cosmic equilibrium, eternal future, transfiguration, release from the karma chain, hence Nirvana, the passive aspect of nature (expressed through a two-fold limitation : **FOUR × TWO**), stability, the completion of evolution towards Unity, final equilibrium as an outcome of development (**SEVEN + ONE**), definite union of the creature and the creative Logos (**FIVE + THREE**), regeneration, resurrection, eternal life, beatitude, accomplished individuation (with C. G. Jung). Contiguous concepts and symbols : the octagon (mediation between the square and the circle, between the earth and the sky), the wind rose (consisting of the four cardinal points and their intermediates)⁴⁸, particular cross patterns (the Maltese cross, the cross of Lorraine).

NINE (from the Lat. *novem*). The last number in the "scale" of simple numbers and the most complex one ; "square" form. It symbolizes : the supreme plenitude reverting onto Unity, cosmic solidarity, final reintegration, ultimate development of an idea, totality of creative principles, the complete time, the multiplied creation (**THREE × THREE**), action, transition, the sky, the beginning of transmutation⁴⁹. The first nine natural numbers

form the “fundamental scale”; in the subsequent numbers, the significances become increasingly general and suggest a cosmic degradation of the Principle⁵⁰ through factorial multiplication of the first nine numbers. For the analysis of compound numbers, mention should be made that arithmosophy allows the study of various operations within or between the figures of these numbers, which may lead to relevant symbolical significances.

TEN (from the Skt. *daśa*, through the Latin *decem*). This is the first compound number, of “triangular” form, the sum of the first four numbers ($1+2+3+4=10$, in compliance with the Pythagorean tetractys). It symbolizes: synthetic Unity (as an even number, in distinction of the pure Unity, symbolized by ONE, an odd number), accomplished Unity, equilibrium viewed as an effect, the final point of development, the collective being, the Universe as a unified organism, the limit of the human concept, the sum of the harmony of the other numbers, the supreme, all-regulating cycle, the return onto Unity after the entire cycle is over, life and death (their coexistence)⁵¹, the pre-eminently accomplished number from all possible numbers, the strict fulfilment of the development of ONE⁵². Other symbolical meanings may derive from the possible decomposition of TEN.

ELEVEN symbolizes the individual initiative with no reference to the Universal harmony, the inner strife, wandering, rebellion, the disturbing element, dissonance⁵³, excess, hypertrophy, disorder, the resurrection⁵⁴, the beginning of a new cycle⁵⁵.

TWELVE symbolizes the Universal activity (the zodiac consists of twelve sky areas, with each being extremely rich in symbolism)⁵⁶, the Universe in its cyclic development, in its complexity, the becoming, action, the choice⁵⁷. So far, this is the number having the most divisors. It represents the basis of the space-time divisions (the 12 months of the year, 12 hours of the day, 12 semitones of the chromatic scale). It may be regarded as $6+6$, $5+7$, $4+8$, $3+9$, $2+10$, 3×4 , $10+2$, etc.

THIRTEEN symbolizes the principle of activity (THREE) exercising onto Unity (TEN), transformation, passage (from TWELVE to another state, i.e. death and the generating power). FOURTEEN symbolizes the cyclic law (FOUR)

referred to the cosmic Unity (TEN), the perpetuation of life ($1+4=5$)⁵⁸. FIFTEEN symbolizes the vital whirl (FIVE) animating the cosmos (TEN). This is a “triangular” number representing the sum of the first five natural numbers. SIXTEEN symbolizes the action of karma (SIX) in the cosmos (TEN), the multiplication of cycles (4×4 , 8×2), the stream of development ($1+6=7$)⁵⁹. SEVENTEEN symbolizes the evolution (SEVEN) in cosmos (TEN) towards deliverance ($1+7=8$)⁶⁰. TWENTY symbolizes Universal striving, cosmic differentiation (2×10), the energy source⁶¹. TWENTY-ONE symbolizes the individuality derived from differentiation. It is in a way the inverse of TWELVE and represents the sum of the first six natural numbers⁶². TWENTY-TWO symbolizes cosmic antagonism ($20+2$), the balanced play of particular opposed initiatives (11×2)⁶³. TWENTY-FOUR symbolizes the ratio between the permanent cycles and the karmic necessities (4×6), the wheel of rebirth, the two-fold harmony of the sky and the earth (12×2)⁶⁴. So far, this is the number having the most divisors. TWENTY-FIVE symbolizes the multiplication of creation (5×5) ($2+5=7$)⁶⁵. THIRTY symbolizes the strict equilibrium, the static achievement (3×10)⁶⁶. THIRTY-ONE symbolizes the individuality beside the static achievement ($30+1$). This is, in a way, the inverse of THIRTEEN⁶⁷. THIRTY-TWO symbolizes the plan, the outline of forms, justice⁶⁸. THIRTY-THREE symbolizes organization, free activity (3×11) ($3+3=6$)⁶⁹. THIRTY-SIX symbolizes the Universe, initiation ($3+6=9$), cosmic solidarity (9×4)⁷⁰. This is Pythagoras’ “great quaternary”, the sum of the first eight natural numbers (four of which are odd and four are even). FORTY symbolizes the completion of a cycle, the rhythm of repetitions in the Universe⁷¹, expectation, preparation⁷².

7. Numbers may also have a particular significance depending on their position in the sequence of natural numbers (each number being conditioned by the preceding term, whose logical consequence it is, and by the following number, to which it leads) or in various other groups. We can follow the course from 1 (*absolute Unity*) to 2 (*differentiation*), 3 (*action, organization*), 4 (*achieving form*), 5 (*life*), etc. The second series of numbers

(from 6 to 10) represents a relative opposition to the first series and also the regressive drive towards Unity. The quality of even or odd number is very important. (Thus, even numbers can be reduced upon division by 2 — these two halves signifying an internal opposition, an essential definite antithesis, and, hence, static equilibrium, passive female character—whereas odd numbers are singular, dynamic, male, active, creative). For instance, the binary non-being (2) is *specified (balanced)* in 4, and *objectifies (reaches life)* in 5; the ternary seriation (3) *acquires equilibrium* in 6 and *becomes actively accomplished* in 7, etc.⁷³ Other relations of symbolical significance are established between the sum and product numbers of the same factors (e.g. 5 and 6, obtained from $2+3$ and 2×3 , or 7 and 12, obtained from $3+4$ or 3×4), between the numbers having many divisors, which are highly stable (12, 24, 36, 60) and the odd numbers that follow immediately (13, 25, 37, 61), between the “triangular”, “square”, “cubic” numbers, etc.

8. The present text continues (with some specification as the title itself shows) a preliminary study⁷⁴; this article itself will be followed by further such texts that will furnish new details about the symbolism of the binary male/female opposition (II), of matter (natural elements: earth, water, fire, air) (III), of the notions for space orientation (North, South, East, West, Zenith, Nadir) (IV) or of other significant objects or actions (V). Without re-stating the ideas expounded in the previous studies, we shall only recall that, in the acceptance used here in compliance with Jung’s concept, *the musical archetype* (or, more precisely, the musical representation of an archetype of the collective unconscious) represents an essential factor of any musical language, a factor of “*natural*” rather than “*cultural*” value; it constitutes an *archetypal level* of the work of art, which “precludes” (methodologically, of course) *the semantic and the aesthetic levels*. *The archetypal level* entails a general human character independent of time and space, which is either unconscious or volitionless and through which consonance with nature, with the Universe, with eternity is attained, whereas *the semantic level* reveals rather a conscious activity, meant for concrete communication, time- and space-conditioned, i.e.

depending on historical and geographical, hence relative, conventional, changing factors; the *aesthetic level* brings together the first two levels in re-establishing the connection with the likewise eternal realm of forms (though it also depends to a certain extent on a particular cultural background given by the outlook defining an epoch, area, degree of education, taste, tradition, etc.). This triadic model renders more particular several data on the musical phenomenon which are customarily viewed as a whole. We should likewise recall the necessity (long justified in any theory of symbols) of adopting a *metaphorical representation on music* (which has nothing to do with its “literaturization”, since by virtue of the multivalent meaning of the symbol, the latter is permanently tied to musical structure proper). The metaphor is, in fact, very frequently employed in the traditional “technical” terms of music (e.g. major, minor, chord, crescendo, theme, scale, cell, slur, coda, acute, etc.).

9. The numbers which are essential in establishing relationships in hearing are fewer, strictly defined and from a numeration system with three basis: 2, 3, 5⁷⁵. It was already Leibniz who stated (1734) that “music counts up to 5”.

10. The identification of a symbolical significance of numbers in musical structures should not be taken for the approaches of *informational aesthetics*, which deals with the work of art in terms of the quantity of information it furnishes. A mathematical Study to the aesthetic forms (like G. D. Birkhoff’s analysis) which lends precise numerical value according to the relative importance of the factors defining a class of aesthetic objects — an undertaking to be further accomplished by Max Bense, Abraham Moles, etc. — is of undeniable merit in that it makes a lucid examination of *the physics of the message*: the choice of the repertoire, the laws governing the assembling of signs-assemblage codes⁷⁶, the categories of information supplied by the work of art, including the distinction between *the semantic message* and *the aesthetic message* (the overall variations or fluctuations adopted by the *Gestalt*, the message being still identifiable).

11. Any musical structure is related to number, but it is by no means immedia-

tely perceptible, nor is it endowed with the same symbolical significance in various types of music. We shall agree that each type of music must be regarded in a particular manner, depending on its own system of values and relations amongst structures. Although the “Pythagoreanizing” view is apparently best suited to music in general and is closer to its intimate essence, it is by no means the unique analytical modality. We can delineate at least four distinct levels of integrating the number with music : 1. the numeration proper (melodic or rhythmic cells of 2—3 ... sounds, etc.); 2. the relations (which can be established between frequencies, durations — e.g. *Sectio aurea*, etc.); 3. the combinatorial, permutational a.o. procedures (various computational forms, including the probability analysis); 4. the symbolical sense. Although the symbolic analysis can virtually operate with any kind of numbers, it implies several numbers in particular — the first in the sequence of natural numbers, the only ones which seem to be of pre-eminent individuality. We recall Daniélou’s principle, by virtue of which numbers 2, 3 and 5 serve as a basis for numeration systems in the process of musical perception. In the Pythagorean and the Chinese systems, it is only numbers 2 and 3 that are assumed to be generating numbers (the pentatonic scale is generated in this manner i.e. the cycle of fifths, whose intervals correspond to the cosmic order); number 5 introduces the emotional factor into the proportional scale (e.g. the Indian modes), etc. The global schemas and tables of Daniélou show the role played by these numbers in the musical (melodic) systems of traditional Oriental music; in this particular cases, these numbers assume also a prevailing symbolical meaning.

12. Symbolism can be defined at one (or all) of the following levels: 1. the work in its entirety; 2. the paradigmatic axis of the work (melodic, harmonic, rhythmic, architectural systems); 3. the formation of the work starting from micro-elements and following their subsequent combinations in ever larger structures, up to the final macro-structure; 4. certain “significant kernels” of the work, irrespective of the level at which they emerge (they can be paradigmatic data if they play an important symbolical role,

or they can refer to micro- or macro-structure, etc.).

13. Virtually, the musical syntax based on equivalence relations⁷⁷ pertaining to the performance of the idiom under consideration, represents a para-musical, relatively independent archetypal level.

14. Thus, several numerical archetypes can be symbolically expressed in the work, both upon the vertical (structures) and the horizontal (zones); various relationships may be established amongst these archetypes (eventually a coincidence or a contradiction, a possible hierarchy, etc.). Apparently, it is more correct to consider that in an artistic work — like in nature it extrapolates at the archetypal level — there would exist all numerical symbols which are virtually expressed at various degrees of intensity; the problem here does not consist in “finding” these archetypes but in *understanding their significance and the relations therein*

15. Because of the nature of the symbolic analysis, subjectivism cannot be eluded; however, it can be strictly limited if we adopt a virtually consistent, comprehensive “grid” of analysis that would cover as objectively as possible the work of interest.

16. In a first step, we would establish the essential determinant factors in the work under examination, depending on the category of music it pertains to (the system of values proper to a certain work). This process entails a minute examination of the work, using the more or less adequate methodological “tools” of present-day musicology.

17. The analysis proper of the significant kernels exhibits a relevant similitude to the approach to dreams suggested by psychologist Robert Bossard; these similitudes are motivated in this view by their common source, i.e. the human unconscious which — in dreams like in the work of art — organizes concrete sensory data of a more or less accidental, conventional source *in compliance with some archetypal principles*. The phases of analysis are: 1. restriction to physical, physiological stimuli; 2. restriction to the daily context of events; 3. the regressive interpretation (towards the generating psychic complexes); 4. the progressive interpretation (towards the

compensating tendencies of the *libido*); 5. the supra-individual interpretation (in terms of the archetypes of the collective unconscious)⁷⁸. *These successive restrictions and interpretations are aimed at deciphering* (behind some, say, (1) variational fluctuations caused by accidental stimuli, (2) ordinary melodic figurations over a given period and idiom, (3) psychological constants proper to an area, period, (4) the tendency to compensate them, "the release from norms"), *the ultimate motivation of a creative undertaking* — (5) *the consonance with a certain (numerical) archetype, hence, with the Universe*.

18. Let us sketch several musical representations of some numerical archetypes. Archetype ZERO (*the emptiness*) is expressed by the comma or by eliminating several sounds, durations, timbres. Archetype ONE (*the undifferentiatedness*) is expressed by the overall unity of the work: the single sound, tenuto, *unison*, the monody (eventually, homophony), lack of modulation (of variation in general), of rhythm (eventually a isorhythmic work or a rhythmic *rubato* system), the non-progressive form, the monostructure, the iterative building principle (e.g. *ostinato*) the unique timbre (a single instrument soloist or timber undifferentiation). Archetype TWO (*the opposition, contrast*) is expressed through bipolar structures as major/minor, acute/low pitched, consonance/dissonance, rapidly/slowly, *forte/piano*, *Tutti/solo*, etc., modulation, octave, the *giusto* rhythmic system (particularly the bichronous one), the binary rhythmic subdivisions, the cell, the AB form. Archetype THREE (*the synthesis of contraries, gradation*) is expressed by the fifth (and its cycles), the trison, the tonal system (the function of the tonic, dominant and sub-dominant), the ternary sub-division, the "dotted" rhythmic values, the unification of dynamic, compass bipolarity through a gradual transition (*crescendo*, average compass, etc.), the ternary rhythm, the sonata form, the AAB, ABB forms (actually ternary syntheses of some binary elements). FOUR (*the orientating frame*) is expressed by a two-fold opposition (the intersection of two binary oppositions — e.g. between *forte/piano* and high/low pitched, which can yield four terms: *forte* + high, *forte* + low, *piano* + high, *piano* + low pitched), the tetrachord, the fourth, the time beat 4/4 (the binary double), the motif (the

double cell), the AB form (derived from AB.AC, AB.CB or AB.CD), the four parts of the classical symphony (actually, there + one), the four syntactical categories (the monody, the homophony, the polyphony, the heterophony), the timbre groups of classical orchestras (wooden, brass, percussion, stringed instruments), the string quartet, the mixt choir for four voices (and, in general, the traditional harmony for four voices). Archetype FIVE (*the sensible, the asymmetry, the dynamism*) is expressed in the third (major, minor), the pentachord, the asymmetric beat, the asymmetric form patterns of binary/ternary type (e.g. AAB.AB), the concertante pattern in the context of the classical orchestra (the four mentioned groups of instruments + the soloist). SIX (*the synthesis of two opposite, symmetrized dialectics*) is expressed through the hexachord, the "major-minor" and "minor-melodic" mode (as a synthesis between major and minor), the binary beat with ternary sub-division ($2 \times 3 = 6$), the phrase, the double formal ternary pattern (bar/antibar: AAB.ABB), the rondo-form (ABACABA). SEVEN (*the complex unifying asymmetry*) is expressed by the heptatonic, complex asymmetrical time-beat, various syntheses of FOUR and THREE (the tonal system applied to the classical harmony for four voices, the classical orchestra performing a sonata form). EIGHT (*the accomplished cycle*) is expressed by the period (the double phrase which in its turn is a double motif), the classical architectural quadrature (which might derive from dance, hence, suggest its relation to a spacial art)⁷⁹, the association of two quaternary elements (the quartet in four parts).

19. Virtually, the paradigmatic level of traditional Indian, Chinese a.o. music and classical European music seems to furnish a more obvious and comprehensive symbolical significance at the level of numerical archetypes than appears in the contemporary music, despite the higher structural complexity of the latter. The "weakness" of this layer archetype is largely due to a particular structural involvement which may wipe out several distinctions, principles of articulate idioms (e.g. the cancelled opposition between consonance and dissonance, the outcast of the idea of time-beat, symmetry, etc.) Whereas these archetypes are "veiled" in

terms of melody and rhythm (in fact, the tempered melodic system itself represents — according to A. Daniélou — a rude approximation adopted in the Western musical practice *in lieu of* the pure numerical archetypes as they are expressed in the pentatonic and modal melodic systems), other components of the musical discourse, other modalities for defining the archetype emerged. To the definition of the archetypes contribute, for instance, the contrasts between the sound bodies, timbre, dynamic effects and, finally, the variation of the overall information level. However, we should observe that if referred to the “loss” derived by neglecting the melodic structure, the “gain” seems only minor.

20. The syntagmatic level introduces the concrete context in which a paradigmatic element operates (thus, for instance, after a section of complex polyphony, the homophony may be perceived as suggesting the archetype ONE, whereas after a long *unison*, it will suggest multitude). Depending on the relation between “two neighbouring terms”, few archetypal relations would operate syntagmatically, i.e. ONE (a relation of identity between terms — though under temporal existence, the identity is no longer pure identity !), TWO (the contrast), possibly THREE (the synthesis), archetypes that would “control symbolically” the entire musical discourse (or other types of temporal discourse).

21. Thus, to the symbolism of a work contribute heterogeneous elements, at the

level of the musical idiom under consideration (of its paradigms), of a para-musical abstract syntax and, finally, of the concrete work of interest (several significant details). *From the coincidence, contradiction or various importance of terms, we may outline an overall complex symbolical image of the numerical archetypes expressed in the work under examination.*

22. We have referred here to music viewed as a sonorous, audible process and not as notation, ritual, etc.

23. Likewise, we have neglected all that can be considered “symbolism added” to the symbolical ability of the musical sign itself.

24. Much like generative grammar, which does not deal with the concrete (“performed”) text but with the linguistic “competence” of the subjects speaking a language, here too, we consider that the elements of the general paradigmatic structures seem to be of importance, since we are less interested in the individualization of a work; instead, we are concerned with revealing its archetypal meaning, by which the work can be related to many other works pertaining to various authors or epochs. *The strictly concrete, irrepeatable work can only be regarded as symbolically endowed to the degree to which it inscribes within a general significant, thus surpassing its unique, isolated condition.* The increasing interest taken in various epochs in the general or individual character of the work of art⁸⁰ may likewise signify the prevailing concern for the archetypal or aesthetic levels of the musical sign.

Notes

¹ E. H. GOMBRICH, *The Sense of Order*, Oxford, 1979 (1909), p. 299.

² MARTIN VOGEL, *Die Zukunft der Musik*, Düsseldorf, 1968, p. 195.

³ MATILĂ GHYKA, *Estetica și teoria artei*, București, 1981, p. 25.

⁴ JEAN CHEVALIER, ALAIN GHEERBRANDT, *Dictionnaire des symboles*, Paris, 1961, p. 280.

⁵ MATILĂ GHYKA, *op. cit.*, p. 421.

⁶ N. R. RADIAN, *Cartea proporțiilor*, București, 1981, p. 8.

⁷ * * * *Yi King*, Paris, 1981, p. XIX.

⁸ M. GHYKA, *op. cit.*, p. 36.

⁹ VIRGIL STANCOVICI, *Ideea de număr*, București, 1971, p. 5.

¹⁰ V. STANCOVICI, *op. cit.*, p. 7.

¹¹ Ibidem, p. 13, 90.

¹² Ibidem, p. 57.

¹³ CARL GUSTAV JUNG, *Un mythe moderne*, Zürich, 1961, p. 214.

¹⁴ J. CHEVALIER... *op. cit.*, p. 280.

¹⁵ M. GHYKA, *op. cit.*, p. 29.

¹⁶ Ibidem, p. 26.

¹⁷ Ibidem, p. 27.

¹⁸ R. ALLENDY, *Le symbolisme des nombres*, Paris, 1921, p. VII.

¹⁹ ANDRÉ IEROL-GOURHAN, *Gestul și cuvântul*, București, 1983, p. 121.

²⁰ MARCEL BRION, *Arta abstractă*, București, 1972, p. 14.

²¹ R. ALLENDY, *op. cit.*, p. X.

²² M. BRION, *op. cit.*, p. 64.

²³ * * * *Dicționar de matematici generale*, București, 1981, p. 46.

²⁴ J. CHEVALIER... *op. cit.*, p. 417.

²⁵ Ibidem, p. 205, 325.

²⁶ *Dicționar de matematici...* *op. cit.*, p. 305.

²⁷ R. ALLENDY, *op. cit.*, p. 22.

²⁸ N. R. RADIAN, *op. cit.*, p. 62.

²⁹ M. GHYKA, *op. cit.*, p. 412.

³⁰ J. CHEVALIER... *op. cit.*, p. 348.

³¹ R. ALLENDY, *op. cit.*, p. 12.

³² Ibidem, p. 10.

- ³³ J. CHEVALIER... *op. cit.*, p. 299, 274, 302, 200.
- ³⁴ *Dicționar de matematici... op. cit.*, p. 85.
- ³⁵ R. ALLENDY, *op. cit.*, p. 36, 19.
- ³⁶ M. GHYKA, *op. cit.*, p. 412.
- ³⁷ R. ALLENDY, *op. cit.*, p. 39.
- ³⁸ *Dicționar de matematici... op. cit.*, p. 243.
- ³⁹ R. ALLENDY, *op. cit.*, p. 71.
- ⁴⁰ J. CHEVALIER... *op. cit.*, p. 72, 263, 141, 153.
- ⁴¹ *Dicționar de matematici... op. cit.*, p. 47.
- ⁴² R. ALLENDY, *op. cit.*, p. 112.
- ⁴³ J. CHEVALIER... *op. cit.*, p. 39.
- ⁴⁴ *Dicționar de matematici... op. cit.*, p. 276.
- ⁴⁵ R. ALLENDY, *op. cit.*, p. 146.
- ⁴⁶ J. CHEVALIER... *op. cit.*, p. 211, 159.
- ⁴⁷ R. ALLENDY, *op. cit.*, p. 170, 172, 216.
- ⁴⁸ J. CHEVALIER... *op. cit.*, p. 38, 292, 38.
- ⁴⁹ Ibidem, p. 352.
- ⁵⁰ R. ALLENDY, *op. cit.*, p. 322.
- ⁵¹ J. CHEVALIER... *op. cit.*, p. 201.
- ⁵² C. G. JUNG, *op. cit.*, p. 144.
- ⁵³ R. ALLENDY, *op. cit.*, p. 316.
- ⁵⁴ J. CHEVALIER... *op. cit.*, p. 321.
- ⁵⁵ C. G. JUNG, *op. cit.*, p. 144.
- ⁵⁶ R. ALLENDY, *op. cit.*, p. 325.
- ⁵⁷ J. CHEVALIER... *op. cit.*, p. 209.
- ⁵⁸ R. ALLENDY, *op. cit.*, p. 347, 360.
- ⁵⁹ Ibidem, p. 361, 363.
- ⁶⁰ Ibidem, p. 364.

- ⁶¹ Ibidem, p. 366.
- ⁶² Ibidem, p. 366.
- ⁶³ Ibidem, p. 370.
- ⁶⁴ J. CHEVALIER... *op. cit.*, p. 396.
- ⁶⁵ R. ALLENDY, *op. cit.*, p. 374.
- ⁶⁶ Ibidem, p. 377.
- ⁶⁷ Ibidem, p. 377.
- ⁶⁸ Ibidem, p. 378.
- ⁶⁹ Ibidem, p. 389.
- ⁷⁰ J. CHEVALIER... *op. cit.*, p. 321.
- ⁷¹ R. ALLENDY, *op. cit.*, p. 385.
- ⁷² J. CHEVALIER... *op. cit.*, p. 70.
- ⁷³ R. ALLENDY, *op. cit.*, p. 170, 171.
- ⁷⁴ CORNELIU DAN GEORGESCU, *Preliminaries to a Theory on Archetypes in Music*, in *Rev. roumaine hist. art*, tome XIX, București, 1982, p. 75.
- ⁷⁵ ALAIN DANIÉLOU, *Sémantique musicale*, Paris, 1967, p. 24, 41.
- ⁷⁶ ABRAHAM MOLES, *Artă și ordinator*, București, 1974, p. 23.
- ⁷⁷ NICOLAS RUWET, *Langage, musique, poésie*, Paris, 1972, p. 135.
- ⁷⁸ ROBERT BOSSARD, *Psychologie du rêve*, Paris, 1972, p. 241.
- ⁷⁹ GISELE BRELET, *Le temps musical*, Paris, 1972, p. 266.
- ⁸⁰ ȘTEFAN NICULESCU, *Între individual și general*, in *Arta*, tom XXX, nr. 11, București, 1983, p. 34.