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On Harmony and Harmonics



Interview
with Aurelio

Dr. Vladimir Yatsenko

Vladimir: Long ago when I met you in Pitanga Hall, you were talking about something very occult and related to harmonics and harmony. You were into dancing, into sound, into Pythagoras and so on, but the biggest impression I had about you, was this interest in harmonics and how it reflects on the social organism, the relations between different instruments, different frequencies, and then different beings in the social setting. In our IPK (Integral Paradigm of Knowledge), we came to this conclusion that harmonics has something to do with social organization also.

Aurelio: Yes. The faculty of hearing.

Vladimir: Right. I remember the exercise which you did with us, saying: "Close your eyes and imagine you are in the womb, listening to the outside world; you don't see it yet, but you are already here, you already have relations with it. You understand the meanings of those relations before you see the forms." This is something fundamental and I would like to hear from you again, in some form, about these basics, the foundations of harmonics.

Aurelio: I am currently teaching a two-week seminar; last week I had to explain how I came to the monochord, to the polychord. We have this Sound Healing Bed with 50 strings below, which is basically like a big tambura. It was developed from pre and postnatal research on music and birthing, the process of birth. From the micro world into the macrocosm, everywhere those harmonic proportions and laws are seen, and the fascinating thing is that the basics of it, its fundamentals, are very simple. It's about the proportion of one to two.

Just a few months ago, in one of the last harmonic seminars in Europe, there was a professor from Vienna, who was the last professor in that institute, who said, "No, Harmonic Science will continue, because there are a few rare centers around the world." Then he said, "One of those centers of Harmonic Science and research is in Auroville."



Vladimir: You mentioned One and Two - could you develop that line of thinking?

Aurelio: The One, basically goes into the Two, and the Two is One and One. In the principle of the Two, there is mirroring of the One, so the Oneness is hidden. The Two is not separate from the One. The Two is just a duplication of the One. The Union of the One and the Two is this process: the Three is then basically the creative principle. It's something completely new. It has the One and the Two within. In the Tao Te Ching, it says, "Out of the One, Two emerges in this mirroring process. Out of the union of the One and Two, the Third creative principle awakes, is born, and then out of the the whole Three, creation unfolds".

Harmonic Science would say, yes, and what's happening in the 4, 5, 6, 7? What's happening in the lines of the prime numbers? What are prime numbers? Every number, let's say 11, 13, 17, 19, which is not divisible by other factors, 23, 29. So each one of those principles carries, has a symbolic unfolding of the cosmos from Oneness, into its fullest expression of a million.

Vladimir: Right. We could say, as you started, that One is mirrored into another One, sees itself in the mirror, let us say, and that seeing generates something which is the Third. That relation of One to Oneself. And that relation is the principle of harmony. We can even say that Three is harmony, in a way. Yes?

Aurelio: Yes. It's the Trinity. It's the balancing of the One and Two. It's also very interesting to see in my therapeutic work with couples, for instance. When they have children, often the children represent a harmonizing principle; somehow because the child is forthcoming from both factors, it carries a harmonizing principle. I think the whole creation in one way is a coming forth, or a manifestation Mother calls it, of progressive harmony. Harmony is not a state. It's a dynamic equilibrium. And it's constantly unfolding and changing. Then you can say, okay, so when the Three is this creative principle, you need the Four to stabilize it. Because also in the Chinese system, every uneven number is creation. And the even numbers, they're feminine, they're stabilizing. After this creative principle of the Trinity, which unifies the polarity, you have the Four, when suddenly the polarity gets stabilized. When you introduce into this beautiful, metaphoric process of creative energy the five, suddenly a completely different principle comes in.

What I do then in the seminars, before I speak anything about the Three, we meet on one drone. We sing one drone; we find out what it is to be in harmony on one frequency. I'm starting those exercises on a pitch, which is between the male and the feminine natural pitch, so that we all feel comfortable. I let everybody sing the same tone; it's beautiful. Then I say, 'Can we listen to the female and to the male voices separately?' Suddenly the room realizes in surprise, 'Hey, it looked like we were singing the same note, but actually we are not, because the female voice is singing an octave higher'. Then we ask, 'so what is the octave principle?' We realize it experientially. We sense it as the same tone, but it's an octave apart. I will explain what an octave is. Between the first tone and the first overtone, there are eight notes in between. It's a jump of an octave, because it's double the frequency. That is how I was trained, partly also because of anthroposophic teachers who were very careful in balancing the mental comprehension of a system and the experiential, phenomenological dimension. Basically, when we sing the octave, we try it in many ways. What is the principle of One to Two? And then you have the principle of Two to Three. Three to Two, which is the musical Fifth. Where is our inherent connection with harmonics coming from? Of course, it's coming from the belly, where in gestation the hearing sense is fully developed in the fourth-fifth months, and then we spend another four months in the belly listening to the mother's voice. And you can also say, in the four months of language between the A (ah) and the U (ooh) and E (eh) and the I (eeh), that's again a harmonic spectrum.

We learn to hear the harmonics in the mother's voice. Dr. Tomatis says the being, the embryo, is built and the nervous system forms through the sensory input - sensory input of touch, but also through the first sensory input that is hearing. And as hearing happens, the little being must process the hearing input and neurons are building. So the sense of hearing basically assists in developing our nervous system and our brain capacity.

Vladimir: It must be the nervous system. Yes. It's not the ear yet. It's the whole system vibrating in unison or dissonance or...

Aurelio: In a liquid medium.

You know there's a recent paper out of Harvard, where it says Pythagoras was wrong. What's happening in this study? It's not only those integer numbers, proportions, the pure Fifth, the major Third, the minor Third, the major Sixth, the minor Sixth, the intervals which arise out of the harmonic series.

We have many other traditions like the Indonesian tradition of Gamelan music, the Khmer Cambodian chord music, and some African music, or in the Balkan music, in the Slavic music, Roma gypsy influences from the folk music. For instance, Béla Bartók found, he even heard 7th and the 11th overtone in this scale. And we know in Arabic music, the 13th has a place, which in the Western system is interesting, and in the Chinese system we call it scenarios. All the existing Western classical music is within prime number Five: it's about the Fifths and the Thirds in the minor and the major modes. That determined the whole harmonic system of Western music, the chordal system.

Vladimir: Maybe they're most cognizable. This is what I'm thinking.

Aurelio: Exactly. A paper, which recently appeared, said maybe we were too Eurocentric and only count pure harmonies. This is what the mind reacts to in a recognition of harmony. But, you know, if you grew up in a completely different environment with those metal gongs of Indonesia, the Gamelan instruments, where those metal shapes and the round shapes, they have completely different and uneven harmonics inherently. The babies who grew up in those environments, are exposed to a different sonic environment. And for them those things are harmonious. Interestingly enough, I was just with a family, (he's a musician, and his two girls) in Bali recently, and he said his two girls constantly fell into a trance with that music.

Vladimir: Opening. It gives them some opening for...

Aurelio: I think what is important is that the integration of harmony is a process of human evolution. In the anthroposophic system, for instance, there are examples in the old Persian system, where a certain interval was more predominant. In the Indian system, in the Greek system, the Fourth became harmonious, and then only in the Middle Ages, after the Gregorian Chant, which was still all built on the music of the pure Fifth, and the harmonies were only in octaves and Fifths, and an organum could come in on the Fourth, because the Fourth is the Fifth below. And then suddenly, how to say, there were even intervals which were called the devil in music, diabolus in musica, the tritone. It was too inharmonious, and even the Thirds were frowned upon by the church because they were too emotional. They were too earthly. They were not of these heavenly Fifths harmonies. And that's why folk music was then banned from the churches and all of that.



But then in the troubadour and folk music individuality developed. We said that the Third brought the really incarnated human being in its emotional being. And so then you can say the Tritone, which was not allowed even in the Middle Ages, became the main interval in the Wagnerian, post Wagnerian time, breaking up those chords, and suddenly the disharmony came in and the chordal structures were disintegrating with Debussy. And maybe it was a preparation that then in the 12-tone music, all harmonic principles and proportions were not looked for or not aimed for. In the 12-tone series of Schoenberg, you had to see one note after the other, which were not relating harmonically.

Vladimir: Interesting. There is a very similar thing that happened in China also with pentatonic. They imposed pentatonic songs on society as the norm.

Aurelio: Yes.

Vladimir: And it's something similar to what you mentioned in Europe. And of course, because they want to hold the harmony in the society. This is another very interesting topic. The music and society, harmony in society, and the music, how society lives through music, and how it builds harmonic relations.

Aurelio: Very important. For me there are even these academic studies on music psychology, music sociology. What does music do to the system? We even have now the science of biology and music. We know that through recordings we can define the health of an environment better than from photos. There's this beautiful research that the forest photographed after 20, 30 years might still look the same, but if you have the recordings, then you immediately recognize the loss of species, of diversity of species. Music is basically woven, and a big part of it is hidden in the Harmonic Series. If the whole creation is created out of music, out of this primal vibration, of this first movement, of the first utterance of Vak, then the laws of music, the harmonics, must be found in all expressions of creation. And a study of music in society would be very interesting, as you say, because look at what is happening globally at this moment. If we look into contemporary culture, what are the foremost collective experiences? With concerts you have Taylor Swift running one of the most successful tours ever in musical history.



Vladimir: Now there is AI; they are creating any kind of music. You can make songs, opera, unbelievably good compositions. Of course, it's AI, using super voices, and all instruments. Everything is very clean.

Aurelio: For many years we went through this discussion. There was nice research, for instance, with mantras, on the effectivity of a mantra if it's expressed vicariously, or is internally recited, or is even only mentally recited. Are mantras more effective when you self-recite them? Are they also effective when you hear them from someone reciting, who is singing them live in front? Do electronically recorded mantras have the same effect?

Vladimir: Big, big questions, which until now are not totally answered. I guess because we are listening to the electronically sounding mantra, we are kind of revitalizing it. We are reliving it, and giving it a place in our consciousness, or giving it energy, which it should have; that's why it has an effect. I wanted to ask you about one more thing, which is so fascinating. This is an unending, beautiful discussion on harmony, but also on communication, because communication is another very important and big part of harmony. How do we communicate in a way that is true to oneself and modify the context in a harmonious way, not destroying it, not demolishing oneself and the milieus. Those communication skills we must address in some way, I think.

Aurelio: Very important point. Yesterday we had a beautiful lecture by somebody from a Pragya (Prajna) lineage, Vedic Pragya lineage on Nada Yoga. And what came up was about basic mantric practices and the Pranava AUM, deep exercises of manifesting the AUM. What came out was that you will not achieve high Dharana and Dhyana if you don't have certain ethics around the use of sound, what in Buddhist tradition we call Noble Speech. So for instance, If you don't honor, or you don't have this reverent attitude towards this astounding gift, which differentiates us from the animals (who also have expressions, the capacity of sound, primal and instinctive sound expressions, Upapranas, such as whale songs or bird songs) the finer aspects of language will not open.

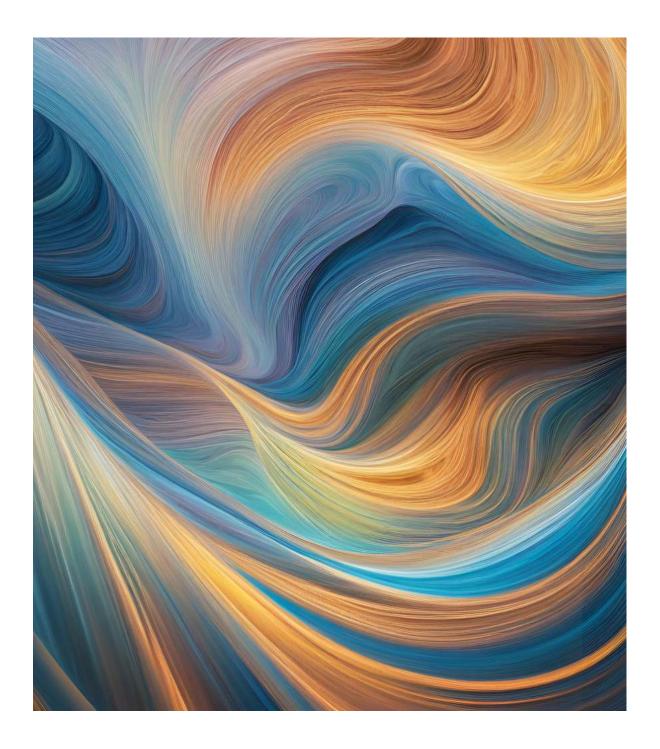
Meanwhile, at SVARAM, w are focusing, not on music education, but on sound education, on awareness of the hearing sense. The aim of sound education is that children become listening beings. Then we learn to listen to ourselves, to our needs, and can express our needs naturally. We learn to listen to the needs, ideas, inspirations, and questions of others, to the family, to the environment. One of my teachers always said that we've been so focused over the last thousands of years on the eye and the sense of seeing, the sense of measuring, discerning, categorizing and perspective of near and far. Maybe there's a pendulum swing coming. He always said that, only if we become deeper listeners, can we find a deeper balance and the deeper integration of the being.

When the Mother spoke about the consciousness of the cells and the cellular perception, she said it was unfolding so much stronger because she used sound vibrations to harness the entry into it. And so, my sense is that actually, from that opening, a popular wave is coming: a 20-30 year wave of Yoga, a global wave about sound, sound healing, sound journey, sound therapies, and all of that. So many young people, who come to Auroville from all over the world, want to know about vibration. Everybody wants to learn about vibration. I think it's an inherent need, because our consciousness is evolving into a deeper perception, where we not only cognitively understand things, but, as you said, experience dissonant harmony, the pleroma of sound, which includes all the disharmonies of physical, emotional, and cognitive experience.

And it can be a spiritual experience.

Vladimir: Absolutely. These are the great ideas, thoughts.

I would like to come back to your monochord, which you created, for I glimpsed the idea of silence through it. When you shifted on the monochord half a tone for all 40 strings, you made a very powerful sound. It's like a cacophony, because you have a half tone over 40 strings. And that created a sound which scared me to the depths of my being. And that sound, I thought, was the very loud sound of silence.



In a way, if you can multiply the volume of silence and make it heard, it'll be all frequencies put together. And it's like white light when you mix all the colors, you will arrive at this white light. Same there, they look like they are interfering with currents, frequencies, but they are actually building something even deeper. And in that sense, silence is the basis for any possible harmony. Any harmony emerging out of the unknown is the idea, the basic idea of music, anyway. And we can hear music only on the ground of the silence.

Aurelio: Yeah. I'm very happy that you have this perception... I can answer your question based on the Pleroma of Sound, the full radiance of sound, which incorporates all possibilities of sound. And as you said, there are experiments; nowadays with computer, you can do it very easily. For instance, the understanding of shruti, which is the minutest meaningful interval that we can discern and which still has a different quality. In the Indian system, they have 22 shrutis, and a classification of the shrutis as open and emerging, balancing, introvert, soft etc. But actually in an acoustic way, there would be almost an unlimited number of sounds, which you can bring into an octave, all the gradations of it. On the basis of mathematical principles, we usually come to a system of 53, maybe 64, intervals in one octave. And as you said, listening to this astounding continuum of sound, can possibly bring us back to this primal hum, which is so beyond our conditionings of language and listening, that it opens a completely new space.

Vladimir: Compressing time and rhythm. Can you imagine if you would compress five minutes of music into five seconds. So what would you have? You would have some blast of all possible frequencies.

Aurelio: Bringing it back to the yoga of transformation, we have the prediction that our perception is changing, a whole state of being, of intro-perception also, how we experience our body. If this is changing, I think that's why in music presently there's such interesting work happening on the basics of the sound fundamentals of music. Pulsations, frequencies, and textures bring us through the elements. We come closer, as you said, to the origin of music, which always will be, and everything flows into it, the Grand Silence.

Vladimir: Music is somewhere a choice of someone who selects the frequencies and sounds from this universal reservoir of all possible. The best reservoir would be the noise, which has all the frequencies. So, you can highlight or re-articulate some elements of that kind of frequency pool into something which makes sense to you. It's like someone there, the soul or the spark, which re-articulates this pool in a way which makes sense to it. It starts to make not only sense, it also helps him to build himself and his context in the world. And this is not only the force, not only the instrument, but also the material from which he builds.

Aurelio: Yeah. And now you said the beautiful plethora for non-Al music, because Al takes all the available data and fills it in. But if we talk about transformational processes, which you so beautifully now stated, the exploration of the self in relationship to the world of manifestation, that can only come from a living soul, the innovation of that moment. That's why I'm not too concerned with Al creation of music.

Vladimir: So Al selects already from the selected, and takes it and makes from the selected already its own selection, so to say, which is not totally conscious, and it is not really the same as pulling from the original pool.

Aurelio: And from the unknown. I think it will help us in moving into the vision, which Sri Aurobindo carried on the sociological domain for humanity. Auroville is an experiment in human unity. We bring together all the impossibilities of all the different classes and cultural backgrounds and nations and nation souls: it can basically harness all cultures. I just came from Matrimandir and the Gardens, and from my harmonic perspective Sri Aurobindo, especially in his early writings, talks about many systemics.

In Mother and Sri Aurobindo's Symbols, there's this beautiful synthesis of the major Knowledge Systems of humanity. The Hebraic systems came through the Mother and Théon, and what is Mother's twelvefold Symbol?

There was such a beautiful thing in an esoteric school, where I studied in Vienna. It was all built up on the 12-folded color circle of Goethe. It had linguistics in it, phonetics, physics, and chemistry. Everything was in there. The table of chemical elements is a pure harmonic matrix. And so for me, the Gardens around Matrimandir (yesterday we had a very amazing, beautiful performance on the Four Mahashaktis: Maheshwari, Mahakali, Mahalakshmi, Mahasaraswati) are the expression of the principles of Four, of this manifestation of the Divine Force.

Matrimandir has those three layers. Numbers are kind of like signa. They're signatures of things. I can meditate on Mother's Symbol just on the Three Circles, on the One and the Four, and the Twelve, and I can look at it again and again, maybe as Pythagoras was leaning over his one string, and revelations are emerging, because that's the beautiful thing. I'm saying we have ten fingers. If we only comprehend what it means, the Five, the first Five Harmonics, and then maybe the doubling of it. If we understood the principles of One to Ten, we would understand the principles of creation. And that's the beauty of Harmonic Science, actually, the principles are so simple, that we have to dismantle all our knowing and just be in the pure perception and transmission of those principles.



Photo of the Matrimandir



Vladimir: Beautiful.

Aurelio: I just finished the three months online seminar with 28 people from around the world. We touched into such deep spaces, in oneness. Maybe the online web meeting gives us the opportunity to connect globally. You're sitting on the other side of the world and we can have those deep Satsangs in one way.

Humanity has to go through different challenges. I really want to encourage you and Radhe, and the team, and HP Rama, please continue La Grace at this moment; you are creating a vessel for the Grace to manifest, and that you're holding this high quality of spiritual studies is very important.

Vladimir: The same for you with SVARAM. You developed such a good, beautiful place in Auroville, which becomes like a signature of Auroville in some way. You have to hold that focus.

Aurelio: We focus on the calling, on what we are called to. The whole of humanity is going through excruciating transitions and insecurities. So I think that it's also good that Auroville experience a bit of that suffering, so that we learn how to deal with it, from this amazing teaching we are nourished from, that can be applied in all walks of life, in all activities of life.

Vladimir: Great! Thank you for your time and this beautiful story. Namaste...

Aurelio: Thank you, Vladimir. Namaste... AUM AUM AUM

