

## We in music are like physicists

Karlheinz Stockhausen talks about his compositional development, the DNA code of musical beings, head-tones, heart-tones and his burning interest in this planet.

(Conversation with Julia Spinola on 11<sup>th</sup> September 2001 in the Musikhaus for the FAZ, published on 17<sup>th</sup> September 2001.)

Spinola: Mr. Stockhausen, does new music have a future or is it increasingly becoming a subject for a few specialists?

Stockhausen: Well, I only see positive developments in terms of the connection to the audience. All the concerts that we will be performing up until December – at the Hamburg Musikfest, in London, in Amsterdam and in Forbach – are selling very well. And I just experienced a fantastic audience at a concert in Stuttgart. It was really very mixed, including very old people who probably normally go to traditional concerts. Very interested people who came to me during the intermission and wanted to take a look at the score, that is really rare. And very many young people. On my 70<sup>th</sup> birthday in 1998, I performed my MOMENTE in Zurich. At the same time a big Techno festival was taking place. They printed postcards with my picture and the headline “Papa Techno”. I experienced something like that last year at the SONAR Festival in Barcelona. The Techno musicians acted as though I were their spiritual father, because they are all now tending to use electronic equipment in order to produce strange sounds. So now, after almost fifty years, they refer to my early pieces. Of course it doesn't matter a bit to them how the music is structured, whether it is composed using formulas or not. The spatial experience is what they are interested in. For instance in Stuttgart we had twenty-four loudspeakers surrounding and above the audience. The resulting sound experience is so fresh that it cannot be compared with traditional music perception.

Spinola: Can you hear that from every seat in the hall? Or do you have to sit as close to the middle as possible?

Stockhausen: It takes me one and a half days to set up the loudspeakers and test them with several dependable people, as to how they are heard from various positions in the hall. Each loudspeaker group consists of a pair: One loudspeaker is directed along the wall, in order to reach the people on the other side. The other group points diagonally through the room. Each loudspeaker has a dispersion of at least ninety degrees, also vertically. So, for every seat, an optimal solution can be found to enable all groups to be heard. They are not all equally loud, but they can all be heard; for example in FREITAG from LICHT all twelve channels were very clear, and that is what I want. What I don't understand is that concert halls are still being built like Greek amphitheatres with a mono-aural orientation towards the front. These rooms do not allow the sound to come from all directions, as it does in my works since 1956. For me, the directions and speeds of the sounds are just as important as the pitches and the durations. When an orchestra performs somewhere, whether it plays Verdi or Webern, it always sounds like a western orchestra: monophonic. That is obsolete. I am convinced that the modern human being is becoming a space human being. Just as he wants to travel into outer space, he also wants to perceive events the way they surround him in nature, so that also the directions and the speeds of the sounds are musically important structurally.

Spinola: So an increasing number of parameters – such as the movement of the sound in space – are integrated as elements of artistic form?

Stockhausen: Yes, that is very important. Because music is not just art to entertain, more or less classified for the various social strata. Music is a genuine art of sound vibration. And in that sense, the development of music since 1950 is really radically different from everything that existed before. One can listen with free imagination and is not obliged to visually perceive how the tones are produced, whether people bow, pluck strings, blow or beat. All of a sudden, one is free and can imagine what sounds. Before a concert, I often recommend to the listeners that they close their eyes and tell them, “the sounds will transport you into a visionary space, so that you will be surprised about yourself.”

The material must – as far as possible – create its own sound world with each work, that has always been my requirement: Not by choosing from what already exists, like in pop music, where samples are always used, but by making something unique for each work. The timbres are also no longer decoration, are not just the instrumentation of given harmonic, melodic or rhythmic factors, but rather have their own structural value. In the music that has been composed since 1950, we are like physicists. We discover a completely new world in acoustics and in the art of forming acoustic vibrations: We not only invent, we are discoverers. So, in a higher sense, we belong to a musicology, thank God: in that we form our own material all the way to the individual vibrations. For fifty years, I have also been an acoustic researcher.

Spinola: And what are you currently researching?

Stockhausen: For the first time in my life, I am writing a piece for five synthesizers. Now, I want to compose a ten-part work in different tempi for all ten layers, because that simply fascinates me.

Spinola: And that will then become part of SONNTAG from LICHT?

Stockhausen: Yes, exactly. MITTWOCH has been finished for a long time and will be world-premièred in Berne in 2003<sup>1</sup>. Parts of MITTWOCH have already been performed. That is also very important, because I have to hear, try out how it sounds, and in the course of countless rehearsals, I can make corrections until the entire piece is ready to be performed in context.

Spinola: You have already been working for twenty-four years on your seven-part music theatre cycle LICHT. Has your method of composing changed during this period?

Stockhausen: Yes of course, because for every part of LICHT I plan to form something that I have not yet tried. Not only in each of the seven days of the week, each of which lasts between three and one half and five hours, but also within the individual “Days”. So I am really an adventurer. That is also the basis of the change, in that I give myself tasks without knowing how I am going to solve them. For example in crazy dreams like the HELIKOPTER-STREICHQUARTETT, where four members of a string quartet play in four flying helicopters. The whole thing is transmitted audio visually, with the rotary blade sounds mixed into the string tremolos. Or in WELTPARLAMENT where I suddenly dreamt that a world parliament comes together that does not even exist yet.

In the last few years, I have been particularly interested in modern space travel research and astronomy. I do not know if you have ever heard of Carl Sagan’s book, “Blauer Punkt im All. Unsere Heimat Universum” (*Pale Blue Dot. A Vision of the Human Future in Space*)<sup>2</sup> It is a phenomenon – you must read it. Sagan is an unbelievably intelligent and visionary person, and is able to exactly indicate when humans will reach the planets of our galaxy and which moons will be visited first. When I study something like this and see the pictures from the Hubble telescope, then I cannot help but think that music has to keep up with it: I want to realise this future spatiality as well as this variety of relationships in music, as long as I live. And that is why my composition and also my own craftsmanship further develop with each and every part of LICHT.

The point is not only to search for new material, but that the material itself poses new tasks. Now, for example, I am working on the last scene of SONNTAG from LICHT, the third and fourth are not yet finished, and the first and second are: LICHTER – WASSER and ENGEL-PROZESSIONEN. ENGEL-PROZESSIONEN is an a cappella work, in seven languages, with an a cappella choir in seven groups that are distributed around the audience, but which move around in processions along the crossed aisles through the hall until they all end up in the middle at the end, as in a spiral. During the course of this crossing, they bring all the flowers to the middle, resulting in a real mountain of flowers at the end. I chose the seven languages because they represent the seven largest populations on the planet.

Spinola: And these seven different groups of angels sing simultaneously in different languages?

Stockhausen: They always sing simultaneously while walking through the room, so that for example Arabic, then Swahili, then Chinese can be heard, etc. Now I am working on the last scene, called HOCH-

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<sup>1</sup> The world premiere was cancelled.

<sup>2</sup> Random House, New York, 1994

ZEITEN with the idea that at the end of SONNTAG from LICHT, five different weddings (German: Hochzeiten) will be celebrated in the five main languages, namely Hindu, Chinese, Arabic, English, African (Swahili). For this I have collected love poems in these languages and am now actually learning vocabulary, because I have to know how the words are correctly articulated. The most difficult part is that each group is supposed to sing in its own tempo. These tempi rotate during the half-hour performance and I exchange fragments of the languages during this process.

Spinola: That reminds me of some of your earlier works, such as TELEMUSIK or HYMNEN. Do you see a connection?

Stockhausen: TELEMUSIK uses even more, twenty-eight different *objets trouvés* from very diverse historical periods and styles. That is because I was invited to compose a new work in Japan and up until that time I had strictly followed the principle of not using anything could be found elsewhere: No part of my music was to sound like anything else. In Japan, I heard music that I had never heard in my life. That fascinated me like Christmas eve when I was a child, when all of a sudden a bell would ring in a room before the door opened. It was magical: Gagaku music, I really fell in love with it. I ordered recordings, picked out one piece of Gagaku music and transformed it with electronic sounds. With a kind of double ring modulation circuit. Then I realised that I couldn't just use one piece as a sort of diary of Japan, so I ordered a lot of folk music. I broke my own taboo. Because I thought to myself, you can't just continue to live as an exclusive European composer. And that is why I used these elements.

But I didn't want a collage, I wanted to find out if I could influence the traits of an existing kind of music, a piece of characteristic music using the traits of other music. Then I found a new modulation technique, with which I could modulate the melody curve of a singing priest with electronic timbres, for example. In any case, the abstract sound material must dominate, otherwise the result is really mishmash, and the music becomes arbitrary. I don't like that. The modulation technology is not enough. What is new must be more important in a composition.

Memories are really very strong, as though one would open a window and let the world come in for a few moments. That is more than if one stylistically isolates oneself in an orthodox way. After HYMNEN and TELEMUSIK, some colleagues tried to integrate all kinds of music into their own music, even mine. In the meantime, it has become very normal to include Schubert, or to mix the music of Mahler or Monteverdi. Incredibly many clichés are treated as composers' own music. The baroque parody technique is supposed to be the model. But I am not d'accord; I think if one listens into the past, then it must really be like a dream in a much stronger present.

Spinola: In the sense of an artistic adaptation, could one say that this material is not simply quoted, but rather processed by the imagination so that finally something new emerges?

Stockhausen: Yes, but that is also a quantitative question: What is new must dominate. The collage as a basic principle is pretty decadent. It bothers me more and more. In the London Barbican Centre, young people are now being instructed how to listen and study New Music, and I was asked to give a recommendation there last week. Elements from my GESANG DER JÜNGLINGE, KONTAKTE and HYMNEN were supposed to be sampled and given to the young people for them to make their own mixtures. That is when I exploded: I spent two and a half years composing GESANG DER JÜNGLINGE, making a tremendous effort to connect my sounds, and then they sample something from it for new mixes.

Spinola: Back to the question about the "open windows": How do you allow this "world-filled" air into your strict musical constructions if you do not to make a collage? Has something changed since 1970, since the discovery of composing with "formulas" in MANTRA?

Stockhausen: This is the way it is. In the works I created during my first seven years of composing, a series of proportions can be found, that is a sequence of certain intervals, of distances. One can apply these proportions to completely different parameters, like an architect, that is to the pitches, the durations, the rhythms, dynamics, timbres, etc. Then, already after seven years, I did not use series of proportions in KONTAKTE anymore, but rather degrees of change. That way I created a relative hierarchy that determined which parameter was liveliest at a particular time. Then, in MIXTUR for orchestra, the Marseillaise is played backwards: a strange thing. Or in HYMNEN there are very many short-wave events

that I heard when I listened to the radio at night. Back then I was a real First-World citizen, had my short-wave radio and particularly at midnight I listened to many different stations, for example with the national anthems of many different countries. All of a sudden this planet fascinated me with its diversity of characters, nations and symbols and of music. And then I composed this major, 2-hour work with national anthems. Of course they were foreign elements that I tried to integrate in electronically produced sounds. Because of my interest in the magical diversity of this planet, this dimension joined my idea of purely abstractly, constructed forms of music, with rows or degrees of change, at a very early time. And that led into the concept of the formula in 1970.

Before that, I composed for one and a half years completely without notes, only using abstract skeletons. The performer was able to form a musical body by himself, using a DNA code, so to speak; to make a living being out of genetic material. In works such as PLUS-MINUS, SPIRAL, POLE or EXPO, the performers use their own imagination for formation. They follow Stockhausen structurally, but then interpret the sound worlds very individually. During the Osaka World Exhibition I sat in Japan every day, often for hours at a time and listened to this freely improvised, or as I called it, intuitive music by Stockhausen. And I realised: That is not enough for me. I want to write music that is much more thoroughly formed, with a greater wealth of relationships than performers can read into it or discover because of particular habits. Thus, the formulas were created, first the formula for MANTRA. It is a melody formula with rhythm, but also with certain note forms, something like different character traits of the tones. The first tone, for example, has a repetition at the beginning, the second has an accent at the end, then a normal tone comes, the fourth has an ornament at the beginning, another a glissando, etc. This way I had twelve tone-forms. From this material, I could then develop entire passages because of the character connected to each tone. That is already inherent in a formula. Every note not only has a duration but also a head, a tail, a heart. I also speak of head tones, tail tones, heart tones. I no longer see tones as something neutral, but rather each tone is an individual person in a composition.

That has developed enormously in the meantime, and in LICHT there is a superimposition of three formulas. A multiple progression from more complicated to less complicated chords emerges. Each formula has a typical direction: The *Michael formula* falls for the most part. The *Eve formula* rises and falls, in the middle there is a kink and then it rises again. And the *Lucifer formula* jumps like a panther into the major seventh at the beginning and then falls, breaking in one place, tries once again to rise and falls even more. These kinds of traits are especially obligatory for the whole work that altogether will amount to circa twenty-eight hours. In each of these three formulas there is also an improvisational part for a free combination of the preceding notes. So I already include those elements in the formula for which I might have needed an insert in earlier works – and still, inserts exist today. If I develop something and notice where something is missing, I sometimes write a fermata-moment, in which one dreams and in which the entire development of the structure stops for a while. That happens again and again.

Spinola: Could one say that formula composition has helped you a great deal in terms of the synthesis of imagination and construction in a work?

Stockhausen: In fact I believed for many years – and I don't know when it changed – that I write *my* music; that is, only what occurs to me, always with very clear disciplines that I imposed upon myself and strict directions not to include anything foreign, to always form something new, but yet still always my music. I must say right away, that I was already horrified as a student, that Stravinsky's pieces could always be identified immediately, regardless of which period they belonged to. I wrote my diploma thesis on Bartók's *Sonata for Two Pianos and Percussion*. Even then I noticed: I do not want to have something like what these composers apparently still saw as an ideal, a personal style. In that sense, one could say that I have grown out of the idea of a personally bound composer who is searching for himself and who wants to build his own world in the world, and have become more and more a world musician. I was the first to use the word "Weltmusik" (World Music) in 1964, especially in texts with this title since 1973.

Spinola: Are there compositions by your contemporaries that you listen to, to which you feel close, and from whom you perhaps even have the impression that you are working on the same thing from two different sides?

Stockhausen: Unfortunately not. I listen to music very much, people send me a lot: Some time ago, the BBC asked what I thought of six Techno musicians. In the end, six broadcasts were made, always alternating pieces by Stockhausen and pieces by the Techno musicians. Or I have received CDs from

Schnebel, Kagel, Pousseur, the last pieces of Boulez, of Berio (of whom I cannot understand how he can give in to exclusively arranging traditional music for so many years). Zender published arrangements of music of the 19<sup>th</sup> century, as well as Henze, Birtwistle and many others. I become very quiet. I cannot understand this strong trend of musical reference to the past. It is very disappointing that work is not continued on the great tasks that exist in the area of music: to construct long time spans that won't cave in, won't fall down; to create magical sound worlds with a unique choice of means that can be experienced in music as a whole as something characteristic, something new and foreign; to further develop the composition and notation of movements in space, dynamics, timbres.

In the works of other composers, I expect an expansion of consciousness through which one can learn to listen better, discover something, develop oneself, especially through alien sound events. The alien is so important for what we are actually looking for. Especially in music, the most sublime and lightest art. It consists of vibrations in air, and the art of forming vibrations is something unbelievably heavenly, spiritual. Because listening is so basic, we cannot simply close our ears, as we can close our eyes. We must always listen, try to understand. I think referring to the human being as he is today is not right. We must have the ideal human in mind, the human that does not yet exist. A human being who can hear phenomenally well and who makes aesthetic and structural demands that no human before him has ever made. We cannot just create music for the human being as he is now.

Spinola: That means you are concerned with making new experiences possible in an emphatic sense, also for the listener?

Stockhausen: Yes, and with what I experience when I create music in a studio. With what confuses me and what also amazes me. I make demands on myself that I can't even fulfil, because I have the will to grow beyond my bounds. I don't want to accept myself the way I am. And in that sense, I believe that others want that too.

Spinola: That means for the listener of course, that he has to accept uncertainty, the "risk" of actually hearing and experiencing something that he has never experienced and never heard before. Something that could possibly upset him very much.

Stockhausen: Naturally. That is why I will always tell the audience before the coming four concerts: I have had a little spotlight installed, like a moon, for those who are afraid to be alone in the dark. But I still request that you close your eyes and remember that your very own, wonderful inner world opens up. And identifying with your eyes is not that important in music. Music is the opening of an inner world. And we are spirits, it is not necessary for us to lay our hands on it or open our eyes to check on it. The year 1953 brought such radical renewal, that we have no language to describe the sounds that have been made possible since then.

Spinola: Your LICHT cycle is to be finished by 2005. What are your plans for the time to follow?

Stockhausen: LICHT is the seven days of the week. Before that, I composed SIRIUS, the twelve months and the four seasons of the year. And HYMNEN was the tour around the planet. After the seven days of the week, I want to compose the twenty-four hours of the day. That interests me incredibly. By listening carefully, I would like to discover something new in every hour of the night and day. It is a wonderful experience to understand the cycles of time more exactly and to study and musically form them.