

An interview with Pierre Schaeffer - pioneer of Musique Concrète

by Tim Hodgkinson, 2 May 1986

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Introduction: What is Musique Concrète? (by Tim Hodgkinson)

Musique concrète is music made of raw sounds: thunderstorms, steam-engines, waterfalls, steel foundries... The sounds are not produced by traditional acoustic musical instruments. They are captured on tape (originally, before tape, on disk) and manipulated to form sound-structures.

The work method is therefore empirical. It starts from the concrete sounds and moves towards a structure. In contrast, traditional classical music starts from an abstract musical schema. This is then notated and only expressed in concrete sound as a last stage, when it is performed.

Musique concrète emerged in Paris in 1948 at the RTF (Radio Télévision Française). Its originator, leading researcher and articulate spokesman was **Pierre Schaeffer** - at that time working as an electro-acoustic engineer with the RTF.

Almost immediately, musique concrète found itself locked in mortal combat not only with its opponents within traditionally notated music, but also with electronic Music, which emerged in Cologne in 1950 at the NWDR (Nord West Deutscher Rundfunk). Electronic Music involved the use of precisely controllable electronic equipment to generate the sound material - for example, the oscillator, which can produce any desired wave-form, which can then be shaped, modulated, etc...

At the time, the antagonism between musique concrète and electronic music seemed to revolve largely around the difference in sound material. Over the decades, this difference has become less important, so that what we now call 'electroacoustic music' is less concerned with the origin of the sound material than with what is done with it afterwards.

On the other hand it would be facile to allow the category of electroacoustic music to absorb everything just on the basis of shared technology. For there are underlying choices to be made about the nature of the whole project. The hands-on listening-based approach of concrète - its curiosity about the actual nature of listening - suggests that the way forward in aesthetic terms will be a process of thoughtful but direct engagement with sound materials rather than the usual ritual of submission to the technical possibilities.

We have to admit that today this is still a radical idea. In other words, concrète is still here to remind us of the project of actually making music, as opposed to demonstrating equipment or putting systems through their paces. The new musicians are not only *not* in the conservatoire; they are *not* in the laboratories of IRCAM (Institut de Recherche et Coordination Acoustique/Musique in Paris) and *not* at Sony either.

Interview with Pierre Schaeffer (May 2nd, 1986)

TH: You are a writer, a thinker, and a radio sound-engineer. This makes you, from the point of view of 'Music' with a capital 'M' - something of an outsider. Do you think that, in moments of crisis, the non-specialist has a particular and important role to play? I don't know whether this is entirely correct, but I sense that, at the moment when you came into music, around 1948, you were a non-specialist of this kind...

PS: Yes. But chance alone doesn't explain why a non-specialist gets involved in an area he doesn't know about. In my case there were double circumstances. First of all, I'm not completely unknowledgeable about music, because I come from a family of musicians: my father was a violinist and my mother was a singer. I did study well - theory, piano, cello, etc, so I'm not completely untrained. Secondly, I was an electroacoustic engineer working for the French radio, so I was led to study sound and what's called 'high fidelity' in sound. Thirdly, after the war, in the '45 to '48 period, we had driven back the German invasion but we hadn't driven back the invasion of Austrian music, 12-tone music. We had liberated ourselves politically, but music was still under an occupying foreign power, the music of the Vienna school.

So these were the three circumstances that compelled me to experiment in music: I was involved in music; I was working with turntables (then with tape-recorders); I was horrified by modern 12-tone music. I said to myself, 'Maybe I can find something different... maybe salvation, liberation, is possible.' Seeing that no-one knew what to do anymore with DoRéMi, maybe we had to look outside that... Unfortunately it took me forty years to conclude that nothing is possible outside DoRéMi... In other words, I wasted my life.

TH: We'll certainly have to come back to that. Right now, I want to ask you if you think that there is an inherent connection between what seem to be simultaneous developments; that, on the one hand, there is the crisis of traditional music - 12-tone and so forth - and on the other, there are the new possibilities offered by technology, possibilities of opening up new continents of sound. Sometimes this seems to me to be merely a matter of luck. At other times it seems that there must be an inherent reason...

PS: I would answer that this luck is deceptive. First, it doesn't surprise me that traditional music has experienced a kind of exhaustion in the 20th century - not forgetting that many musicians started to look outside the traditional structures of tonality. Debussy was looking at six note scales, Bartok was exploring mode; tonality seemed to be exhausted. The impressionists, Debussy, Fauré, in France, did take a few steps forward. Then, after the impressionists, we have a period of rigour, of barbarity, a period seeking to re-establish something more solid. This is epitomised in the Vienna school. At this point the Vienna school was also inspired by scientific ideas, by a rigour coming from a discipline which wasn't music but an algebraic equation.

So it seems that one of two things can happen in a period of high technology; either technology itself seems to come to the rescue of art - which is in a state of collapse - (that was my starting point, musique concrète with the tape-recorder, now electronic music, etc), or it's the ideas of technology, ideas from mathematics, ideas with a scientific aura, or real scientific ideas given an unreal relevance to an art which is seeking its discipline - its ordering principles - outside itself instead of within the source of its own inspiration. This coincidence of a music which is debilitated and failing and a glorious, all-conquering science is what really characterizes the 20th century condition.

What did I try to do, in this context, in 1948? As Boulez said, extremely snidely (he's a pretentious boy, a kind of musical Stalinist... I'm an anarchist myself), it was a case of 'bricolage'. (Note: This French noun

has no direct equivalent in English, but is close to the adjective 'makeshift'; and the idea of improvising new uses for things originally meant for something else) I retain this term not as an insult but as something very interesting. After all, how did music originate? Through bricolage, with calabashes, with fibres, as in Africa. (I'm familiar with African instruments). Then people made violin strings out of the intestines of cats. And of course the tempered scale is a compromise and also a bricolage. And this bricolage, which is the development of music, is a process that is shaped by the human, the human ear, and not the machine, the mathematical system.

TH: It seems to me that there are several possible attitudes to the machine. There is something which we can trace to a kind of puritan tradition, where the machine represents a kind of purification, or perfection, which we in ourselves cannot achieve, and is therefore an escape from the human. Then there is another point of view which retains a humanist perspective and sometimes a kind of projection of human qualities onto the machine, and which is in any case a more complex and a more doubting relationship... I would place the Futurists, for example, in this second point of view. Looking at the history of *musique concrète*, there sometimes seems to be a symmetry, with sound on one side and system on the other, with *musique concrète* taking the side of sound. Within this duality, would you agree that *musique concrète* embodies a more humanist position?

PS: Yes, of course. You mention symmetry, and I would like to take this term as a very good way of looking at this. But what symmetry? I think we are speaking of a symmetry between the sound world and the music world. The sound world is natural—in the sense where this includes sound made by sound-producing instruments—the Rumori generators, *concrète*, etc.—the sound of the voice, the sounds of nature, of wind and thunder, and so forth. So there is, within the human ear, as it developed over millions of years, a great capacity for hearing all this sound. Sound is the vocabulary of nature. When we hear the wind, the wind says 'I'm blowing'. When we hear water, the water says 'I'm running'... and so forth. Noises have generally been thought of as indistinct, but this is not true. In the 17th century people thought of noises as unpleasant—but noises are as well articulated as the words in a dictionary. Opposing this world of sound is the world of music, the world of musical entities, of what I have called 'musical objects'. These occur when sounds bear musical value. Take a sound from whatever source, a note on a violin, a scream, a moan, a creaking door, and there is always this symmetry between the sound basis, which is complex and has numerous characteristics which emerge through a process of comparison within our perception. If you hear a door creak and a cat mew, you can start to compare them—perhaps by duration, or by pitch, or by timbre. Thus, whilst we are used to hearing sounds by reference to their instrumental causes, the sound-producing bodies, we are used to hearing musical sounds for their musical value. We give the same value to sounds emanating from quite different sources. So the process of comparing a cat's mew to a door creak is different from the process of comparing a violin note to a trumpet note, where you might say they have the same pitch and duration but different timbre. This is the symmetry between the world of sound and the world of musical values.

TH: What is musical value for you exactly?

PS: The best analogy is with language—since we talk of musical languages. People who share the same language, French or Chinese or whatever, have the same vocal cords and emit sounds which are basically the same, as they come from the same throats and lungs. So this is a sound world. But the same sounds have linguistic values and this makes them different. These linguistic values derive from their role within a system. In the same way, musical value is inseparable from the idea of system.

But how does this bear on the question of the machine in our contemporary world—which is really a different question from the question of symmetry? We could say that the machine has had two quite different, even antagonistic, impacts on our modern world. There is the romantic, romanesque, illusionist

tendency which proposes a biology of the machine, which is rather what the Italians (Futurists) were about; it goes back to the storms and the murmuring forests of romanticism, the pastoral symphony, the representation of nature in music. But of course as machines now constitute nature, music now needs machines to represent this nature; our forests and countrysides *are* machines... But there is another, quite opposite, tendency, which sees machines as the means not only of producing sound but also of musical values themselves. Many researchers, well understanding the pre-eminent importance of musical value, turned to the physicists. Their values were now frequencies, decibels, harmonic spectra. With electronics they could get direct access to all this and have really precise and objective musical values. But then—another symmetry, this time a really disturbing one. When you build a farcical machine for rumori with things rubbing against each other—like the Italians—lead shot in a drum, etc, you don't hurt a fly, it lasts ten, twenty years—it's circus, quite harmless little sound effects. But when you stick generations of young musicians, as is happening today, in front of synthesisers—I don't mean the ones for commercial music, but the really precise ones, where you have one control for the frequency, another for the decibels, another for the harmonic spectrum -- then you're really in the shit... [Laughter]

TH: What then should one want to do with music? Accepting the need for musical values is one thing, but how do you choose?

PS: You have to remind musicians of what Dante wrote over the Gates of Hell: Abandon hope all ye who enter here...

TH: But if you stay outside?

PS: Well then you don't have any music. If you enter, if you want to make music, you must abandon hope. Of what? Of making a new music.

TH: So new music is impossible?

PS: Yes, a music which is new because it comes from new instruments, new theories, new languages. So what's left? Baroque music. Has it struck you that the music which is regarded as the most sublime in western civilization, which is the music of Bach, is called baroque? (Note: In French, the term 'baroque' has the meaning 'roughly put together'—as well as the meaning we have in English of that theatrical, excessive, late Renaissance style.) Bizarre. Even its contemporaries called it baroque. Bach lived in a moment of synthesis, in terms of the instruments, the theory—tempered scale, etc.—and was putting everything together. He was taking from the Middle Ages, from the new developments in the instruments of his time, from the Italians, and he made a music which was so clearly made up of bits and pieces that it called itself baroque. Simultaneously traditional and new. And this applies today; it will be when our contemporary researchers abandon their ludicrous technologies and systems and 'new' musical languages and realise that there's no way out of traditional music, that we can get down to a baroque music for the 21st century.

Such a music has been prefigured in popular music - not that I rate it very highly. Jazz, rock, etc, the music of 'mass' culture, and I'm not talking about good jazz, the marvelous negro spirituals which are completely traditional, but the kind of utility-music which is widely used for dancing, making love, etc; this is a baroque music, a mixture of electricity and DoRéMi...

TH: So there is nothing essentially relevant in the fact that the world we live in is changing and that we might need to express new or different things about it?

PS: The answer is that the world doesn't change.

TH: There is no progress?

PS: There is no progress. The world changes materially. Science makes advances in technology and understanding. But the world of humanity doesn't change. Morally, the world is both better and worse than it was. We are worse off than in the Middle Ages, or the 17th and 18th centuries, in that we have the atomic menace. It's ridiculous that time and time again we need a radioactive cloud coming out of a nuclear power-station to remind us that atomic energy is extraordinarily dangerous. So this shows the imbecility, the stupidity of mankind. Why should a civilization which so misuses its power have, or deserve, a normal music?

TH: Well, if you are committed to music, you try to reach, to encourage, the good in people, whatever that is...

PS: That could be wishful thinking. I'll bring in Lévi-Strauss, who has said again and again that it's only things that change; the structures, the structures of humanity, stay the same - and the uses we make of these things. On this level we are just like the caveman who makes a tool out of a flint, a tool for survival, but also a deadly weapon: we haven't changed at all. The world has just got more dangerous because the things we use have got more dangerous. In music there are new things, synthesisers, tape-recorders, etc., but we still have our sensibilities, our ears, the old harmonic structures in our heads we're still born in DoRéMi - it's not up to us to decide. Probably the only variations are ethnological. There are the different musical cultures, the music of ancient Greece, for example, in so far as we can know it, the music coming from the Hebrews into the Gregorian chant, the music of India, China, Africa, these are the variations, and it's all DoRéMi...

TH: Are you pessimistic about the future of this variation - in the sense that there is a cultural imperialism which is destroying the local musics of the world and replacing them by a kind of central music which is driven forward by industrial and political power?

PS: I'm very aware of what you're talking about as I was involved with the radio in Africa in the same period as I was doing concrète - I was doing both at the same time. I was deeply afraid that these vulnerable musical cultures, - lacking notation, recording, cataloguing, and with the approximative nature of their instruments - would be lost. I and my colleagues were beginning to collect African music. At the radio there is a small department run by M (Pierre) Toureille, who has very courageously for seventeen years systematically sent out expeditions to gather authentic African musics and released them on record.

TH: The problem is that the records are bought in Europe and not in Africa. It's hard to see how you can regenerate the music in its own context. In fact, we can accuse ourselves of appropriating it. There is this ambiguity in that we are in a meta-cultural position with the entire cultural geography and history of the world laid out for our pleasure. Do you think this situation brings about a lack of a sense of the real value of culture and cultural artefacts? Many people listen to ethnic musics from all over the place. Does this leaping about in space and time affect the quality of the listening?

PS: Well I don't think we can answer this question of value ultimately, but we can recognize the fact that civilizations are mortal. In music there are, unfortunately, two principles at work. There's the principle of barbarity. The fact that western civilization invaded these autochthonous people entwined with their ancient local cultures - this was certainly barbarous, if not entirely heedless. Barbarians always think of themselves as the bringers of civilization. The western barbarity was turntables, the radio, etc. Then there's the principle of economics which is that bad money gets thrown after good. So if barbarity is the triumph of force, bad money is the triumph of economy - in a metaphoric sense...

TH: I'd like to turn now to the idea that, scattered all over the world, probably in tiny garrets rather than in expensive state-of-the-art studios, there are people busily cutting up bits of tape, making loops, experimenting with tape-recorders, and I would like to ask you if you have anything you would specially want to say to these people.

PS: Well, first I can't pass the buck to them. I started all that. I think they have the great satisfaction of discovering the world of sound. The world of music is probably contained within DoRéMi, yes; but I'm saying that the world of sound is much larger than that. Let's take a spatial analogy. Painters and sculptors are concerned with spaces, volumes, colours, etc, but not with language. That's the writer's concern. The same thing is true with sound. Musique concrète in its work of assembling sound, produces sound-works, sound-structures, but not music. We have to not call music things which are simply sound-structures...

TH: Is it not enough for a sound-work to have system, for it to become music?

PS: The whole problem of the sound-work is distancing oneself from the dramatic. I hear a bird sing, I hear a door creak, I hear the sounds of battle; you start to get away from that. You find a neutral zone. Just as a painter or sculptor moves away from a model, stops representing a horse, or a wounded warrior, and arrives at the abstract. A beautiful sculptural form, as beautiful as an egg, a greenhouse, a star. And if you continue this abstracting movement, you get to the graphics of the forms of letters in written language. And in music you get to music. There's thus a gradation between the domain of raw sound, which starts by being imitative, like the representational plastic arts, and the domain of language. Between, there's a zone of gradation which is the area of 'abstract' in the plastic arts, and which is neither language nor model, but a play of forms and materials.

There are many people working with sound. It's often boring, but not necessarily ugly. It contains dynamic and kinaesthetic impressions. But it's not music.

TH: But what is the exact moment at which something becomes music?

PS: This is a difficult question. If you had the complete answer you'd be a prophet. The traditional testimony is that a musical schema lent itself to being expressed in sound in more than one way. An example is that Bach sometimes composed without specifying the instruments: he wasn't interested in the sound of his music. That's music, a schema capable of several realisations in sound. The moment at which music reveals its true nature is contained in the ancient exercise of the theme with variations. The complete mystery of music is explained right there. Thus a second, a third a fourth variation were possible, which all kept the single idea of the theme. This is the evidence that with one musical idea you can have different realisations.

TH: Do you listen to rock music?

PS: My eighteen-year-old daughter listens a lot downstairs, so I hear what comes under her door. It's enough.

TH: I was thinking that rock music is also a music that's essentially engaged with technologies, in the sense that it grew up with the recording technology and the means of mass-producing discs.

PS: What strikes me is the violence of the sound, a violence which seems to be designed to reach not only the ear but also the gut. In a certain way this seems to function as a drug. Real music is a sublime drug, but you can't really call it a drug because it doesn't brutalise, it elevates. These two characteristics of rock, the violence of the sound and the drug-function, revolve on the basis of a musical formula which is impoverished. This doesn't interest me. I feel rather that it indicates a nostalgia amongst today's young

people, a desire to revert to savagery, to recover the primitive. At this time, who can blame them? The primitive is also a source of life. But the musical means seem sad and rather morbid. It's a dishonest primitive because it's reached through technological sophistication. It's a cheat.

TH: But do you recognize in it the techniques of *concrète*, for example in the idea of production, as the term is used in the recording industry, this conceptualization of the difference between sound source and process, between source and manipulation - where the producer can regard the recorded sound as simply raw material for a process of radical transformation, but of course, more often than not, with the aim of making a successful commodity? Would you allow any kind of humanist potential where the empiricism, the bricolage of rock, is not totally subordinated to commerce?

PS: Well we've already mentioned pessimism, and I must say that I do judge these times to be bad times. We seem to be afflicted by ideologies - often, entirely incompatible ones. Thus, the ideology of scientific rigour and at the same time the ideology of chance; ideologies of power, technology, improvisation, facility - technology with which to replace inspiration. If I compare that to jazz for example in its historically fecund period, the extraordinary fruition of American music at the point where the European *DoRéMi* was suddenly seized upon by the blacks for the production of expressive forms... this was sublime. Now if you think that, decades later, this bloated, avaricious and barbarous culture, brutalized by money and machines and advertising, is still living off this precious vein... well, you have to admit that some periods are simply vile, disgusting, and that this is one of them. The only hope is that our civilization will collapse at a certain point, as always happens in history. Then, out of barbarity, a renaissance.

TH: Some of what you were saying about rock music reminded me of Adorno's essay on jazz, the regressive, nostalgic function, and so forth. Yet you find jazz, in its great period, sublime.

PS: But primitive American jazz was very rich, it wasn't very learned, but it was richly inventive, in ways of expressing into sound, in its voicings; what I really admired, when I was there the first time, after the liberation, in the '50s, were the operettas - *Carmen Jones*, excellent music, I can't remember the titles, but great music - Gershwin of course...

TH: I have the impression that in the '40s and '50s you were optimistic about the outcomes of your musical project. Was there a particular moment when you underwent a general change in your relationship to this project?

PS: I must say honestly that this is the most important question you have asked me. I fought like a demon throughout all the years of discovery and exploration in *musique concrète*; I fought against electronic music, which was another approach, a systemic approach, when I preferred an experimental approach actually working directly, empirically with sound. But at the same time, as I defended the music I was working on, I was personally horrified at what I was doing. I felt extremely guilty. As my father, the violinist, used to say, indulgently, What are you up to, my little chap? When are you going to make music? And I used to say - I'm doing what I can, but I can't do that. I was always deeply unhappy at what I was doing. I was happy at overcoming great difficulties - my first difficulties with the turntables when I was working on '*Symphonie pour un homme seul*': - my first difficulties with the tape-recorders when I was doing '*Étude aux objets*' - that was good work, I did what I set out to do - my work on the '*Solfège*' - it's not that I disown everything I did - it was a lot of hard work. But each time I was to experience the disappointment of not arriving at music. I couldn't get to music - what I call music. I think of myself as an explorer struggling to find a way through in the far north, but I wasn't finding a way through.

TH: So you did discover that there was no way through.

PS: There is no way through. The way through is behind us.

TH: So it's in that context that we should understand your relatively small output as a composer after those early years?

PS: I was very well received. I had no social problems. These successes added to my burden of doubt. I'm the opposite of the persecuted musician. In fact I don't consider myself a real musician. I'm in the dictionary as a musician. It makes me laugh. A good researcher is what I am.

TH: Did your time in Africa have any particular relevance to changes in your attitudes to music?

PS: No. I had always been very interested in music from Asia, Africa, America. I considered that music should be tracked down over the whole surface of the planet.

TH: I think we've said enough.

PS: Yes, I think we've said a lot.

The interview was conducted in French at the house of M Schaeffer and translated by T.H.

Pierre Schaeffer: born Nancy, France in 1910. Developed a wide range of interests in poetics, technics and philosophy. Became famous in the late '40s when, working as a broadcast engineer for the Radio-Télévision Française, he formulated the ideas and techniques of musique concrète and founded a studio for tape composition. Collaborated with Pierre Henry on several of the classic compositions in the genre, including *Symphonie pour un homme seul* and the first concrète opera, *Orphée*, staged at Donaueschingen in 1953. From the mid 70's he concentrated on his work as a writer and commentator on the state of western culture. Pierre Schaeffer died August 19, 1995.

Discography

Étude aux Allures. BAM LD 070

Étude aux Objets. Philips 835 487 AY

Étude aux Sons Animés. BAM LD 070

Flute Mexicaine/ Étude aux tourniquets/ La voile d'Orphée /Étude aux chemins de fer/

Étude Pathétique. DUC 8

Parole et Musique. I.N.A.G.R.M. 9106

Objets Liés. Candide 31025

(with Pierre Henry): *Symphonie pour un Homme Seul.* London DTL 93121

L'Oeuvre Musicale (3 CDs) EM155-3, available from INA/EMF MEDIA, the outlet for INAGRM. Also available from Rer Megacorp in London.

From the publishers:

Pierre Schaeffer: L'Oeuvre Musicale

This 3-CD package is the definitive and complete collection of Pierre Schaeffer's musical works, beginning with the first of his musique concrète compositions, continuing with the collaborations with Pierre Henry, and concluding with Schaeffer's late works from the 1970s.

In 1948, Pierre Schaeffer, then a radio engineer at Radiodiffusion Française, took a radio sound truck out to Batignolles, near Paris, to record railroad locomotives. He used those sounds in a sound collage called 'Étude aux Chemins de Fer' ('Railroad Study') and then named his new approach 'musique concrète'. He composed four other sound collages in 1948, using thin-metal instruments, wooden percussion, and two whirligigs ('Étude aux Tourniquets'), an orchestra tuning up ('Étude pour Orchestre'), noises derived from a piano that is played in a variety of ways ('Étude au Piano'), and pots, pans and voices ('Étude aux Casseroles'). The five compositions were then broadcast from Paris on October 5, 1948 as a 'Concert of Noises', and the broadcast was so successful, and evoked such widespread interest, that Schaeffer was granted an assistant.

Pierre Henry worked with Schaeffer from 1949 to 1957. Their first collaboration was 'Symphonie pour un Homme Seul' ('Symphony for One Man Alone'), which was eventually used by Maurice Béjart in a 1955 performance by his dance company. Their next major collaborations were 'Orphée' and 'Orphée 53'. One of the special surprises to be found in these recordings is Pierre Henry's 'Echo d'Orphée, pour P. Schaeffer', composed in 1988 as an homage to Pierre Schaeffer. Henry referred to it as a "patchwork (of the existing) 'fragments' from 'Orphée' ('Orpheus 51 and 53', a 1950 collaboration between the two composers) ... conceived in your style rather than mine ... a magnetic present."

These discs also include Schaeffer's works from the late 1950s and 1970s, some of them revisions of his early music, some of them technically improved, some of them reworked and shortened.

You'll also find an extensive and informative booklet in French and English, with essays and tributes by Schaeffer's colleagues (among them François Bayle, Michel Chion, François Weyergans, and Jean-Christophe Thomas), a history, bibliography, excerpts from his books, letters, and photographs. It's a rich collection of material. Schaeffer was one of those people who changed the world, and this package will give you a good idea of how it happened.
