

composition - phonography - soundscape - sound installations

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— The word "sound"

"Sound" in English or "son" in French represents two aspects : a mechanical phenomena which is the most often some vibrations of the air and the representation, our subjective perception of this phenomena. Then, from a rational and technical point of view, a sound can be considered for its acoustic properties in terms of hertz, decibels or frequency content or be described in common language as calm, grey or dramatic.

— Composition

An etymology of composition is : com = with, position = to place something. To compose is to make a configuration, a combination of several elements together in a specific place. One definition for music composition would be the creation of close relationships between sounds within a temporal frame.

Traditional composition is based on the idea of the writing of codes leading to music. The composer define an sequence of abstract signs that will interpreted later. Like an architect, he makes a plan that will be realized by someone else, he imagine in his mind the music, before it exists in the air.

Tape music involve the composer in working with recorded sounds and electronic devices rather than with on sheet of paper. He will work directly with the same phenomena that will affect the audience. He's already the audience while composing, switching alternatively between doing and listening.

Editing and mixing sounds are a low level operations, working directly in the sound matter. They are also a way of composing by creating dialogues between the sounds. Mixing as a simultaneous dialogue, editing as a sequential dialogue.

— Musique concrète

Simple listening a recorded note of violin led to musique concrète. Instead of having in mind the visual representation of this very historical tool, maybe played by some very historical person with very historical clothes, or having in mind the exact place of this note amongst the twelve tones of the european scale and comparing it to the 440 hz reference, one would focus on the acoustic characteristics of this continuous sound made of small atoms of sounds, each of these atoms being created by the string released while rubbed by the bow, and following each

other at very high speed.

The idea of Pierre Schaeffer's *musique concrète* is that the perception of a recorded sound is not obligatory a way to represent the source of this sound. It is usual that people makes confusion about the sense of 'concrete' : here it has nothing to do with the material used for buildings, and this music genre is not about "concrete sounds". It is concrete, because it is opposed to the abstraction of the rythm/melody/harmony models in music. It is concrete because it is made directly in the experience of the listener and gives more importance to the listening rather than to the grammar of european classical music.

Musique concrete was called also "electroacoustic music" because of its use of the technology of sound. This adjective is highly obsolete since nowadays there is not one musical form that doesn't use audio technology (from amplification to recording, not speaking of the use of computers and synth). In this sense we could think that so-called digital art / computer music is also meaningless, because it makes focusing on the technological tools rather than on the artistic experiences and intentions.

— **Reduced listening**

Another name for *musique concrète*, was acousmatic music : it is a reference to pythagore's students who were called acousmates. They were listening to the teaching of the master without being influenced by seeing him, because he was hiding himself behind a curtain, making the students focusing on his voice rather than his image. The loudspeaker in *musique concrète* is the curtain of the sound. Musique concrete was opening a new way of listening to the recorded sounds. Because of the disconnexion between the origin, the context, the source of the sound, and its reproduction through loudspeakers in a room, one would be able to forget the stories, the anecdotes told by the sounds. focusing on the sound for itself rather than on what it represents. They perception mode was named "reduced listening" by the musique concrete inventor, influenced by phenomenology. But this fight against representation didn't succeed : some composers suprisingly brought back narration in music. Recorded sounds can evoke places, events, individuals, and not only because of the use of vocal description, but because of the sounds themselves.

— **Memorization and transmission**

Sometimes in junk shops we can find these precious 78rpm records from the 1920's, containing the recordings of short sceneries : a train entering in a station, a market, some distant music in a public space. These recordings are not similar to the sound effects collection that are used in the film industry, they don't acts as archetypes but are small extracts of daily life from the past, like some portraits of places and moments.

Sounds were ephemeral by nature, then came the phonograph. Its invention, in the late 19th century simultaneously by the french poet Charles Cros and the american ingieneer Thomas Edison, not only changed the face of music industry, it also definitely transformed the auditory perception of homo sapiens sapiens.

Phonography was a term created by Charles Cros, as he imagined sound portraits of voices which, like in photography, could help people remembering their relatives. When one is recording a sound, he is able to keep a trace of his auditory experience of the sound. By pushing the "record" button, he decide to become able

to transfer this experience, to transmit its trace to someone else : the one he will be in the future and of course, to the other human beings. Memorization and transmission are the two mainpoints of phonography. During the whole 20th century, sounds, musics and words have been fixed on wax cylinders and vinyl records, then magnetically memorized on tapes and finally digitized and spread over the internet. We are able to listen over and over this huge collection of the listening experience. Audio recording technologie have transferred the memory of the sounds outside of the human body.

— **Field recording and phonography**

The couple microphone/headphone acts as a filter and an enhancer for perception. The use of these tools is absolutly not neutral : the choices of the place and the moment, the gestures, the technical limitations and the zoom/macro effects of the microphone affect the result of the recording. The recordist makes a series of decisions in his practice, and these decisions are related to his own subjectivity. Field recording is what happens when the situation of the recording session is not predetermined like in a sound studio. In the field, one can't predict what will happen, the environment forces the recordist to react to the events.

Going back home, the recordist will make a selection in the raw materials he has gathered. He will decide which sounds will be shared and will propose a point of vue, a portrait, a frame for listening a place, an event. This is a phonography. Phonography can also be described as the practice of recording the sounds of the environment. Ambiguous by its objectivity (the documentary approach) and subjectivity (the "frame" imposed by the recordist who choose the moment, the place and the technique used for the recording), it is nowadays developped by artists focusing on recorded sounds but also by scientists such as ecologists interested in noise pollution, biologists studying animal communication, architects interested into the sonic identity of the cities or even oceanographers listening to underwater acoustic events, but also by composers. This may propose another definition for composing music : instead of only focusing on the making of the sounds themselves it can be also to propose a listening frame. A composer is someone that may create the condition for the audience to listen.

— **Soundscape**

A sound environment is an acoustic space where sounds can be emitted, transmitted, received. It implies at least the level of hearing, in a passive mode or in a non-intentionnal mode. The idea of environment is about the physical space that surrounds us, it is the whole things outside of our body and which we can not predict.

Being aware of what may happen in the environment, passing from hearing to listening, in an active perception mode, one enter in a specific relationship to the sound environment. This relationship can be defined as a dialogue. Let's take the example of an octopus. This animal has 8 organs used for movement, manipulation of objects and the perception of the physical surroundings. The octopus send the tentacles in front of him to test, to expore the environment. He receives informations by contact : his behaviour will be different if he touches an object or if he is touched by an object. He is in a loop of perception : the stimulus makes him trying to receive more information. The situation of a listener in an environment is not very different from the one of the octopus : some sounds comes to his ears which makes him

paying attention to his surroundings, listening carefully and exploring the environment with his ears. The sounds he receives are compared to his own experience, his personal memory, and this comparison will affect his listening behaviour. Soundscape (the term comes from Murray Schaeffer) is what emerges from this listening loop.

— **Umwelt and animal phonography**

Jacob Von Uexküll's "umwelt" is a concept about perception and relationship to an environment. Each animal species, including the human one, lives in a particular perceived world in which every phenomenon has a precise signification. Because of the differences from one species to another, the signification of one event or object may have not the same signification (think about a flower for a bee, for a wandering dog or for a human child).

Soundscape could be inspired by the concept of umwelt: the way we listen, the meaning we attribute to sounds is determined by our physiology, our personal experience and our socio-cultural background. Consequently for one single location, we would appreciate different soundscapes. This idea underlines the fact that a soundscape is more a subjective experience than an objective object.

Animal phonography is the practice of recording the sounds emitted by animals. This activity focuses on biophony. Bernie Krause divides the sounds into three categories: biophony - the sounds emitted by animal beings, geophony - the sounds from the earth and the natural elements, and anthropophony - the sounds resulting from human activities. Nature sounds, and especially animal sounds, have often been represented in music, and recordings of these sounds are commonly associated to romanticism, new-age and other weak interpretations of idealistic wilderness. But animal phonography allows to enter into an animal's temporality: listening to its signals is also trying to follow his time line. It gives a little access to his umwelt. Because animal sounds have sometimes a vocal quality (from the agony of a frog to the chanting of a stag) it transforms also our conception of voice. Sometimes animals create patterns of sounds that are closer to weaving than doing music. Animal phonography proposes a shift in our human perception of sounds.

— **Sound art and sound installations**

Recently, sound invaded art galleries and museums. Countless exhibitions are presenting installations which involve a soundtrack. Sounds can be a pretext for engaging an interactive dialogue with high-tech systems, an accompaniment (like the film industry with music), used in representational mode (each sound becomes a kind of archetype) or as simplified signals (not unlike video game's sound fx). But if the visitor can hear a lot of things, he is rarely invited to listen. Simple and deep listening doesn't need extra-ordinary tools or specifically-designed spaces, but needs some time to open new perceptual spaces, and to consider differently our close physical environment. What we may call sound art is an artistic practice that focuses on this way of listening. Sound art provokes a shift in our perception of the acoustic phenomena and involves us into a special relationship to time and space. Max Neuhaus described as a sound installation an artistic work done with sound, which is connected to the place where the sound will live. This is different from simply filling a place with sounds and has much to do with in-site artworks, where

the artist is engaging a relationship between the place and the visitor. A sound installation creates an ecosystem based on listening. Designing a sound installation is working and playing with the idea of soundscape. It modifies or even enacts a soundscape, by stimulating the visitor's auditory perception.

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