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I.

(Benjamin, 1955: 366 ff).

Deleuze and the Sampler as an Audio-Microscope

On the music-historical-esthetical and philosophical foundations of the digital, micro-acoustic recording, analysing and production process "EndoSonoScopy"

> "The actual musical content of this music is steeped in ways of becoming woman, becoming child and becoming animal, but throughout any possible influences which also depend on the instruments, it increasingly tends to become molecular, in a kind of cosmic murmur that makes the inaudible audible and the imperceptible perceptible as such: no longer the songbird, but instead the molecule of sound."

(Deleuze, 1992: 339)

remarkable and "far-reaching" facts in his lectures on aesthetics: "On certain levels of the consciousness of art and depiction, leaving behind and distorting the natural features is not a sign of inadvertent lack of technical practice or ineptitude, but deliberate modification that is determined by the content, present in conscious thought and required by said content." (Hegel, vol. I, 1965: 81). About 100 years later, Walter Benjamin followed those thoughts further in his epochmaking visionary study "The Work of Art in the Age of Mechanical Reproduction" and remarked that a reproduced work of art "increasingly becomes the reproduction of a work of art designed to be reproducable" (Benjamin, 1955: 375). He went on to state that around 1920, the standard of technical reproduction had already succeeded in making the entirety of existing works of art its object, and that it would also have to find its own place among the creative techniques, which process would result in radical changes in the effect that works of art have.

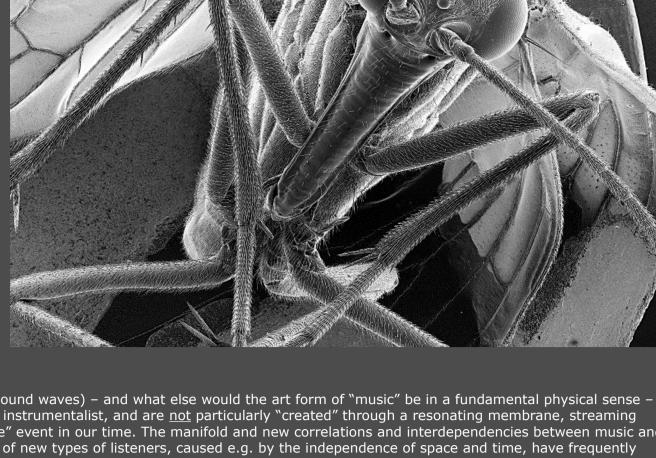
Even as early as during the 1820s, one of the main representatives of the German romantic philosophy of enlightenment, G.W. Friedrich Hegel, stated the following

From the start, it was thus obvious to the visionary thinkers and artists of the time that those technological inventions and developments that are based on the principles of electricity should not only be "used" to reproduce already existing works of

intensified production of "tonal works of art" specifically created for the "electrical" medium ("instrument") of the loudspeaker. Accordingly, the loudspeaker, for example, would turn into a "mediator" of music specifically produced for it instead of "just" remaining an authentic "intermediary" of vocal and instrumental music. The rapid developments of the 20th century in the field of the electrical creation of sounds, the recording, broadcasting and communication of music – for example in dance and popular music, in the field of film and video, but also in the area of

art, e.g. to accomplish a quantitatively higher output for the commercial exploitation of works of art. Instead, the new technical opportunities should mainly serve a qualitatively

electronic / electro-acoustical music and computer multimedia art, which the following pages shall focus on – confirm this in many different ways. Electronically created sound as an expansion of the film, the stage, the radio play and of television, but also of the functional field of electric signal tones, e.g. the mobile phone ring tones and acoustic design are omnipresent today. (Similarly to the global Anglo-American pop music – mainly created on electronic instruments – that practically depends in its entire existence on technical media for their communication and mass distribution.)



Accordingly, if one is searching for the beginnings and first examples of "acoustical works of art" (in Benjamin's sense as briefly described above), in which, for example, the electrical devices for recording are not merely used as a kind of "intermediary" for an acoustical sound report about music(al performances), thus degrading the loudspeakers to instruments used for "musical coverage" and in which furthermore the "power of nature" phenomenon of electricity serves to produce the actual artificial sounds, tones and noises, one inevitably meets two kinds of "acoustic art" in the true range of the "Central European art of music" that developed roughly at the same time, in addition to the applied forms of art such as the radio play or film music. They are firstly the "electronic music" as it first developed in Germany, and secondly the "musique concrète" with its French origins. Both represent the first genuine (and pure) types and forms of music for the loudspeaker as an "instrument". Since the composers / producers themselves are no longer in need of interpretative mediation for their acoustic works of art, fixed in their form and development through recording devices and on data carrier media, the composer is always simultaneously also the performer and interpreter, as it were, of his own work of audio art. Not only is he able to ascertain the greatest possible extent of authenticity in performance of his work(s) and potentially possible "version(s)" which he himself recorded in an "ideal" way, he also gains more flexibility and independence in the availability and distribution of his works of

It appears to be a fact, too, that the so-called amateur will immediately be able to grasp the "coherence" of electronically produced sound from a loudspeaker even upon the first hearing, and the force of habit does the rest to create the impression that – in contrast to instrumental sound – the electronically produced sound was "better" suited to the m ``electrical'' instrument of the loudspeaker. And is it not strange indeed that e.g. piano music reproduced via a loudspeaker makes the latter sound like a piano, but not look like it, but instead it still looks like a loudspeaker! Admittedly, the electromagnetic reproduction device will only re-create something that has been "produced" at an earlier time in any of the cases mentioned above, but it does not "re-produce" anything that could exist without the former. Instead, it "produces" the "original" itself in conjunction with the loudspeakers. Musique concrète is a special case in this context. Based on the technisised art of noise of "futurism" by the likes of Marinetti or Russolo from the years 1912/13, Pierre Schaeffer created the "music of noises" in France from 1948 onwards (he himself referred to it as "musique concrète" after 1949). Schaeffer took his material of sound and noise, recorded once again with microphones working with electricity, from all kinds of audible matter – in contrast to the electronically created sound material of electronic music. In his collages of sound and noise, e.g. manufactured from everyday noises of any kind, sounds of nature like

audio art.1

implemented them – "on the wings" of their art. New instrumental opportunities of tonal realisation of purely imaginary, "utopian", (pre)thought sound art repeatedly blessed it with radical leaps in their development. Thus, Robert Moog's "invention" and development of the synthesizer from the late 1960s was regarded as a mental, and almost instrumental "accelerator" for the developments in electronic music. It would be beyond the scope of this essay, and not appropriate to the occasion if we continued to further examine the aspects of purely electronically created music, particularly because the joint toposonic composition projects of the two artists <sabine schäfer // joachim krebs> have consequently refrained from using <u>purely</u> electronically produced sound materials since 1995. For while the synthesizer as an instrument was regarded as the "revolution" in the field of electronic music, that "instrumental authority" that provoked radical changes, the (acoustic) production process of digital sampling technology that developed around 1985 on the tide of computer-aided, digital-technological developments and which

modification processes and developments of artistically innovative production possibilities whose impact is still completely underestimated by many. The computer is the central production unit for this, as an applied "musical instrument" and a

The sampler represents, as it were, a circular, closed and thus independent production unit for digital recording, storage, modification and reproduction of ("analogue") sound events of any kind. It would thus have been the ideal instrument for Pierre Schaeffer's above-mentioned musique concrète. However, Schaeffer had meanwhile in 1958 re-named his "Groupe de Recherches de Musique Concrète", founded in 1951, to "Groupe de Recherches Musicales" after he had started to include electronically produced sounds and noises into his works from 1956 onwards. Some therefore held the opinion that the "historic task" of musique concrète was more or less completed and that its short history spanning one decade

proved to be truly "epoch making" for the entire production and distribution of music world-wide, led to radical

We completely disagree with that! For is it not true that here once more the newly constructed, computer aided instruments for the recording, production and re-production of sounds and noises, based on the rapidly progressing digital-technological developments of the 1980s were the ones which were able to provide the necessary innovative impact from the mid-1980s onwards, in order to create, for example, a new acoustic form of art, namely that of a purely

auditive art of sound, an art that solely consists of artificially arranged ("composed") natural sounds and noises?

"MIDI controlled", digital sound processor, or "sampler" in short.

should "officially" be declared as at an end.

wind, rain, the rushing of water as well as sounds from animals or humans, he aims for an "immediate" contact with the sound material without any electrons as intermediaries (Pierre Schaeffer, A la recherche d´une musique concrète, Paris, 1952). For this kind of music, the techniques of manipulation and cut became relevant for the creative production and performance through magnetic tape recording devices in addition to the other "instruments", namely the microphone and the loudspeakers. Despite the fact that the sound material was not produced electronically, we encounter more than "just" artificially arranged "reproductions" of natural sounds and noises, as one might be inclined to assume at first. Instead, we find original and autonomous work of sound art which could only be produced with the help of the "newly"

Composers and sound artists have always productively taken advantage of the varied possible interactions and reciprocal relationships between the "individually abstract", imaginary production of art and the "collectively concrete", materialised and continually progressive, technically progressing processes (e.g. in instrument making), and they have creatively

developed instruments, which in turn could not have been designed and built without appropriate technological

And is it not equally true that through the digitalised process of production and sequence of events, these become in their "innermost" selves synchronised and artistic-creative elements to be put into a network, since all media and instruments used for the production are based on the same logical, digital functioning principles? (What an extended potential of opportunity!) Unfortunately, the first developmental years of the sampler as an instrument to be creatively and practically used by the humans to which it was adapted were the last years of the 1980s, and the first of the 1990s, a time when - similar to the previous developmental history of the synthesizer in the early 1970s - it was under the dictates of a commercially optimised exploitation of music through the minimisation of costs during the process of production. Thanks to digitalised access,

decades so far, there is no telling (it is still much guesswork even for a sound artists who thinks and works as a visionary!) which artistic-dynamic-innovative potential for the future of music in general and the art of sound in particular, which is our topic here, is still dormant in the machine-artificial connection of the The elementary, direct, pixel-exact ("particle-exact") access to the endogenous-acoustic (micro)dimensions of "sound" as such – be it pre-recorded, "natural"

signal", as it were, individual sounds are depicted as numbers, for example in contrast to analogue forms of recordings, and are recorded as numerical codes. The result is more than a "linear" and less distorted tonal image, and thus a "higher" quality of reproduction: the digitally stored sound materials are now - at first apparently unlimited, when human categories of thought are applied - prepared for a highly differentiated creative further modification. Unlike traditional tape technologies, those artistic options of access and production are hugely extended, and even amateurs immediately suspect and understand the (quality enhancing) dimensions, e.g. when they compare the options for later modifications of their older, analogue photographs with those modern digital image editing programmes that can easily be realised nowadays with any PC and appropriate software. Not later than the 1990s, digital image modification and computer generating technologies had become the standard in international, usually commercially oriented, professional video, film and TV productions. However, there are comparatively few artistic examples in the field of "pure" art music that artistically adequately utilise the innovative-technological and, in particular, "utopian"-creative opportunities for the development of synergies between the production unit, "sampler", and the instrument of mediation, "loudspeaker". And thus, the sampler, still in its simplest form and with little storage space, when it was at all used from the mid-1980s onwards, was used rather sporadically, and mainly in live-electronic, experimental jazz and improvisational music and in the multi-media networked performance and action art scenes. 3 Not least in the course of a forced technological development in storage chip manufacturing and the accompanying huge extension of storage capacities and

possibilities of production, musician, composer and sound scape artist Joachim Krebs had managed from the mid-1990s onwards (in the first years mainly in his electro-acoustical sound art project "Artificial Soundscapes") to develop and formulate an extremely extended and therefore radically modified tonally artistic and music aesthetic approach to electro-acoustical sound art – both in theory and in practice, and based on the now fully fledged and highly evolved technology of

In order to immediately counter any misunderstanding that might arise: of course we are not interested in an uncritical, purely affirmative relationship with

technological development as such. And we have no intention of taking sides for a solely mechanistically motivated, continually "improved" and, with respect to the definite, negative global effects that (also) occur, loyal progressive definition of development which today, in the 21st century must needs appear to be "puerile"; and much less advocate the thesis that "new" music would almost automatically be generated through new technologies or new instruments. Quite the reverse: on the one hand, it took years of practice and experience with the artistic use of the sampler (since 1985) in many live concerts and studio productions, and on the other hand, an intellectual and theoretic background and foundation in the form of the philosophical writings and "multi-route" thought structures of the great and

instruments, the sampler itself does not create its own specific and individually identifiable sounds, timbres and colours. Instead, it first of all reproduces – with all limitations as described above with respect to "faithful rendering of the original" in the image of the reproduced sound of naturally created sounds via "electroacoustical" loudspeakers – the digitally recorded, analogue sound event that was previously recorded in the "traditional" way with the help of a microphone, preferably 1:1 (a so-called "machine to reproduce recordings"!) In the process of "digital recordings" where an analogue signal is transformed into a "digital

visionary French thinker Gilles Deleuze to allow the development of a "pure" tonal art in the direct musical tradition of, e.g. the Italian futurists from the era around 1910, the Dadaistic phonetic sound poetry of the 1920s, the tape sound/noise collages of the French musique concrète and the electro-acoustical compositions of, e.g. Luc Ferrari and Iannis Xenakis. A purely "acoustic art" that especially places the sensation of the exclusive process of listening at the centre. All this with the smallest visual performance share and multi-media character of an installation, and finally combined and composed from natural sound and noise materials recorded and modified with the sampler.

options for the recording, production and reproduction of digital sampling technology was at the centre of attention of this essay so far, the following pages are mainly devoted to those briefly mentioned philosophical and theoretical basics that, among other reasons, were behind that original development of the "EndoSonoScope" process (interior sound representation) which shall be described in the following. It was in 1920 when Paul Klee (one of the indubitably most important artists of the recently ended 20th century) among other things first formulated that momentous principle which was to become so famous about his quest, originally regarded as "puerile", for another ("true") reality that must be hidden behind the appearance of things that we are accustomed to: ' does not reflect what is visible, it makes things visible." (Creative Confession, 1920). With this statement, Klee not only pointed out that defect we initially described in another context,

Gilles Deleuze, in whose writings Paul Klee appears in very varied contexts, for example wrote in "A Thousand Plateaus": "... and then, when he [P. Klee] had made himself comfortable "within the limitations of the world", was interested in the microscopic, in crystals, molecules,

(concretely, as it were!) concealed objects directly from the micro-dimensions of the "interior" and about the dynamic process of setting free some inherent, hitherto "unthinkable powers"

atoms and particles, not in scientific exactness, but in movement, only in the inherent movement; ..." Deleuze, 1992: 460). This passage makes it very clear that this is not only about things that are "concealed" or another reality behind matter, but instead about

Bildnerische Denken [The Thinking Eye]).

and the "alienation/exterioralisation of inner intensities". 6

process itself audible." (Deleuze, 1992: 468)

exclusively as a so-called "audio microscope".

From one's own (interior) middle, ever more extensive and consistent materials are to develop in a self-dynamical and self-intensifying manner. These in turn release ever more intensive powers and energy or create them in the first place. The continuing varied generation of matter therefore turns to an active, "synergetic symbiotic" and direct relationship of material and power instead of solidifying in a formal, static-mechanistically separated, pseudo-dialectical "contrast of dichotomy" – here: matter, there: form. "Today, it is important", as Deleuze continues, "to use the material that can monopolise the powers of another order..." (Deleuze, 1992: 467) What might all of this mean for the physical medium of "artificially moved air" and thus, in the broadest sense, for the art of music which per se represents itself as an "acoustic art of time / art of the times", temporal dynamic, and especially characterised by and in the flow of time in a linear direction? Deleuze, who repeatedly describes the manifold kinds of relationships between his philosophical thoughts and the medium of sound in his writings, elaborates on the following in his chapter "1837 – On the Ritornello" from "A Thousand Plateaus": "Music molecularises the matter of sound and can therefore capture inaudible powers such as duration or intensity. It can give a sound to duration." (Deleuze, 1992: 468) "The molecular material itself is so de-territorialised that it is impossible to refer to material of expression, as in Romanticist territoriality. The materials of expression cede their place to a material of collection or monopolisation. And the powers to be monopolised are no longer powers of the earth, still constituting a large expressive form, but instead they today are powers of an energetic, shapeless and immaterial cosmos. ... The post-Romanticist turning point was that the essential was no longer contained in the forms, materials or topics, but in the powers, in the density and intensity."(Deleuze, 1992: 467) And in the context of compositional processes as employed by French-American composer Edgar Varèse, he wrote about a "musical machine of consistency, a sound machine (not intended for the reproduction of sounds) that molecularises the tonal material, atomises and ionises it and captures a cosmic energy. If this machine is yet to have a structure, then this must be the synthesizer. By combining the modules, original and editing elements, uniting the oscillators, generators and transformers and combining the micro-intervals, it makes the process of sound and the production of this

Deleuze wrote this in the 1970s. And as we described above, this was the first decade of the synthesizer's development. The (digital) era of the sampler which did not come until the mid-1980s had of course not arrived yet. And still, how accurate Deleuze's statements – e.g. concerning the synthesizer – were with respect to the instrument of the sampler which was, naturally, completely unknown to him at the time, was something we quickly discovered during the late 1990s when we

The term of a musical machine of sound and consistency, one that "molecularises the matter of sound", surely also anticipated by Deleuze in a metaphorical, even "metamorphic" sense, and related to purely electronically created "sound matter" when meant in a concrete and practical way, is first of all realised here in a "real" and practical" manner, and extended by the crucial aspect of the extension of the term matter to mean "everything that sounds in this world", without limitations to "self-produced" sound matter, usually electronically created by humans or with the help of an instrument. Since the sampler accordingly exclusively generates the sound material that is to be reproduced later on from previously digitally recorded acoustic "alien" materials – and does not, like traditional instruments (this of course includes the synthesizer), create them itself – it is able to enter the omnipresent "organic texture of sound" in its capacity as an ideal and central "machine of sound molecularisation" with a complex of computer-aided interfaces to "molecularise" the fragment samples (samples) taken from it - at least in acoustic terms. The sampler functions as a "high-performance audio microscope" in this context, which not only makes the "inaudible" audible in addition to digitally representing the "interior sound" (EndoSonoScope) and molecularising of the sound, but first and foremost prepares, even enables both the natural creation of

were working on developing of the "EndoSonoScope" process. This specially designed micro-acoustic procedure for the recording and analysis of the largely unexplored and unknown ("interior") micro-dimensions of "naturally" created sounds and noises employs the sampler in the original, specific way, almost

"synthetically dead material" even in our first trials with sound microscoping. For example, if you compare the "interior" richness of a grasshopper's "song", "arisen" in millions of years and developed in a highly differentiated way, for the first time made audible by the process of sound microscoping, with the

> comparatively undifferentiated sound signal of an electronic sound generator or something similar which sounds monotonous and "lifeless", then the lack of sound materials that evoke ``inaudible-hidden'' and ``unthinkable powers''becomes very obvious (clearly audible!),

especially in the sound-microscoped, acoustical micro levels of electronically produced sounds and noises. For the great chance of "evoking" those powers (at least acoustically) that are "unthinkable" for humans is not to use any sound material for the creation of the audio works of art that were "thought (up)" and produced by a human being, but instead immediately to return to the almost "desubjectivised materials of expression" of the many ("sound-microscoped") animal sounds and natural noises – that are beyond any human

imagination and productive powers. The share of the production that is designed "subjectively human" should then mainly be limited to the artistically-creative selection (What?) and artificial combination (When, Where and Who with Whom / Which with Which?) of the previously molecularised and meticulously analysed and catalogued sound materials. Another important advantage of utilising only the recordings of "naturally" created sounds and noises from the three basic categories of natural resources for material: "animal", "nature" and "human" – especially for generally conveying and receiving our toposonic art – is the universal character of the sounds and noises of natural origin, familiar to everyone on an everyday basis. This universal character allows many people spontaneous access to the actual ToposonicComposition, despite the "experimental" and avant-garde aesthetic basic approach in all our toposonic works of art, without certain, ("nationally") marked, socio-cultural previous experience, let alone special expert knowledge that is often indispensable for an adequate reception of "euro-centrically" shaped new ("classical") music. 7 But what does one do now with all those sound materials one has selected, audio-microscoped, analysed, and catalogued according to artistic criteria (and which first appear to be rather foggy and chaotic for human ears and minds) in order to artificially elementarise them and put them to proper use in a potential ability of consistency – permanently hovering between an already existing, "naturally-concrete" and "artificially-abstract" fluctuation that must be artificially produced? Deleuze wrote on this subject: "It may well be that one does too much, puts in too much and works with a mess of lines or tones. And instead of producing a cosmic machine that "lends a sound to something", one falls back on a reproductive machine which eventually only reproduces a scrawl that deletes all the lines, a mess that jumbles all the sounds. One pretends to open the music for all events and influences, but what you eventually reproduce is a jumbled mess that prevents any event. All that is left is a sound box that creates a black hole." (Deleuze, 1992: 469). The material must be sufficiently de-territorialised for it to be molecularised and to open itself for the cosmic element instead of retreating into static accumulation.

This condition can only be realised through a certain simplicity of the non-uniform material: the highest possible degree of calculated simplicity in relationship to

According to Varèse, one needs a simple moving figure and a plain that is itself movable for the projection to take on a highly complex form, a cosmic distribution, that is, for otherwise there would only be a background noise. Simplicity, simplicity: that is the required common denominator for the de-territorialisation of

artificially produced and which is itself mainly characterised by the dynamic process of continuing variation of all vertical and diagonal "harmonies", and simultaneously takes place in different time zones and dimensions with their own specific systems of time, relation and definition of speed(s).8 With respect to the question of artificially produced "creation of consistency" that especially points far beyond natural consistencies, may we add the following remarks as conclusion: Two of the most important requirements for those consistencies that can be artificially "composed" and are generated in a continually fluctuating "inter-zone" – between "pure" concreteness and "pure" abstraction – are the acoustic processes of deconstruction and transformation. On the one hand, there is the process of the (partial) dissolution of the (non)tonal, sheer concrete "matter of content and meaning", and on the other, their transformation into a "purely" tonal but not just abstract, "de-subjectivised matter of expression", as it were. Both take place in the production process of "toposonic molecularisation" through "audio microscoping" and the following "toposonic fragmentarisation" with a possible "self-intensifying" creation of loops, as described above in detail. For example, if you start from a small detail, like a picture puzzle, from a "sample (a so-called fragment sample) and are to guess the ("whole") item that is only

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time and sound matrix (stacked in all directions) of the "temporally" horizontal and rhythmically melodic ToposonicFigure and the "spatially" vertical and resonance

harmonic ToposonicStructure (<sabine schäfer // joachim krebs>, 2004: "TopoSonic Spheres" booklet text contribution for the CD/DVD of the same title).

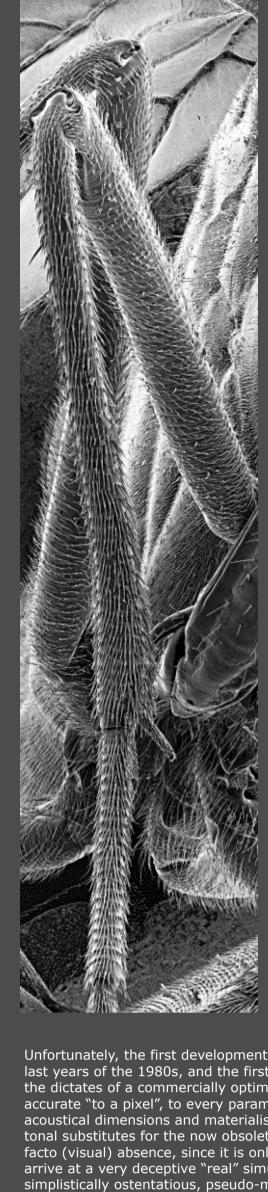
Frankfurt a. M.: Suhrkamp. 1955 Deleuze, G. and Guattari, F. (1992) Mille Plateaus. Berlin: Merve Verlag. 1992 Hegel, G.W.F. (1965) Ästhetik, vol. I, Ed. Friedrich Bassenge. Berlin-Weimar 1965

¹ Incidentally, the fact that the radically modified situation this causes with respect to the possibilities of the production of music often generally seem imperfectly realised, investigated and described in their aesthetic importance and relevance – e.g. by musicological philosophical research. In this new situation, the composer will henceforth be able to fix his completed work of art "authentically" for posterity "ad infinitum" - comparable to the man of letters or an artist. He no longer is dependent on the often "problematic help" from interpreters just to have his work come into existence in a tonal, "materialised" way! (up) ² Naturally, there are always the "interfaces" of the human: a) as a sound artist (sender) and b) as an addressee (recipient). The human (sound artist) as the

⁷ Gilles Deleuze: "The same is true for both literature and music. The individual does not have primacy, there is only the indivisible unity of something uniquely abstract and of something collectively concrete". (Deleuze, 1992: 140) (up)

"sender" forms a "symbiotic production structure", as it were, together with the machine (production unit: sampler). And the loudspeaker as an instrument of mediation then forms a so-called "mediation and communication structure" with the "recipient" in the form of a "listening human being". (up) ³ Author Joachim Krebs realised multi-media projects on a larger scale between 1985 and 1994 – for the new art of music and media – at internationally important performance venues where the sampler was used in a "live performance" (e.g. holiday courses for New Music in Darmstadt in 1988, and the festival "Multimediale" of the Centre for Art and Media Technology – ZKM Karlsruhe in 1991.) (up)

It follows from this that artificially shaped movement of sound (sound waves) - and what else would the art form of "music" be in a fundamental physical sense that are directly and immediately "produced", e.g. by a singer or instrumentalist, and are not particularly "created" through a resonating membrane, streaming towards us from loudspeakers have become a rare and "exclusive" event in our time. The manifold and new correlations and interdependencies between music and technological development and the modified receptive behaviour of new types of listeners, caused e.g. by the independence of space and time, have frequently been the object of research and description. The results include interpretations that are adapted to this kind of listener, by interpreters "playing it safe", who are more interested in a "faithful rendition" based on the recognisable similarities to their previously published "interpretations" the audience is already familiar with instead of taking up a position of a "spontaneous" and creatively-emphatic role of an "(inter)mediator" for the work. This essay will primarily focus on the effects of technical progress on the actual process of creating the work of art.





sampling.

II.

developments in this field.

namely that the production of art - whether with or without the use of technology - would fall far too short if it stopped at only the purely illustrative reproduction of surfaces and superficial appearances of nature or matter, and would attempt to unnecessarily doubly imitate only those which could also exist without art (or technology), which will furthermore never be quite the same as the original! Instead, he first of all intended to point out the process-like and immanent movement during the actual creatively designed "process of making visible" itself, in addition to the second aspect of "making visible" the previously "invisible" that is mentioned (and that should not be imagined as a cheap magician's trick). The main concern here is therefore the depiction of dynamic "ways of becoming" (Deleuze), not the static condition of "being". For example, one should not reproduce the flower, but the "blossoming"4, not the river, but the "flowing", not the dog, but the "barking"5, etc. At the same time, the following statement by Paul Klee also contains an important "utopian spark" (Ernst Bloch): "Furthermore, I do not wish to render the human being as it is, but only as it could also [!] be." (Form- und Gestaltungslehre [Principles of Form and Creation], vol. 1: Das

Whereas the previous remarks were rather more in a vein of historical philosophical, musical technological and music sociological thought, and while the relationship of "autonomous" productions of art and of technical progress, especially with respect to the radically innovative

consistency and the one the sound artists must produce artificially by "rendering" the process of the sound production itself "audible! Artificially creating the interdependent and naturally-artificially produced consistencies as a permanent, dynamically fluctuating process of continued variation – between the "concrete" and the "abstract" – is the prerequisite for evoking those unknown "interior" acoustical intensities and temporal permanences. In their turn, they give evidence of the existence of a "imaginary-auditive landscape and vegetation", one that "lives and thrives" underneath the acoustical surface, as it were. The acoustically imagined habitat as an "audio-sphere" for multifarious "audio-mutations" and new acoustically oscillating types of "being and vanishing" – symbiotic between "concrete naturalness" and "abstract artificiality". It stands to reason that the basic audio materials for the creation of our ToposonicCompositions should be taken from the natural spheres, and especially from the animal world. And indeed, we received clear confirmation of the widespread scepticism many people display for example towards electronically produced sounds as

materials, for the molecularisation of the material and for the cosmisation of powers (Deleuze, 1992: 470). The material accordingly has three main characteristics: it is molecularised matter, it enjoys a relationship with the powers to be captured, and it is defined by the processes of consistency it is subjected to (Deleuze, 1992: 471). Following the molecularisation of sound material, and the accompanying process of making audible / "making thinkable" the inaudible and unthinkable powers to be captured, which in turn served for the acoustic evocation of (inaudibly) concealed "interior intensities", the compositional processes of "auditive elementarisation" and "artificial creation of consistency" gain increasing importance in order to even artificially create well-rounded and "organically rampant", as it were, growing toposonic works of art. The process of "toposonic elementarisation" takes place during an artificially initiated production phase of editing "toposonic intensification". During this phase, the acoustic presence of each individual sound elements itself is noticeably increased through an intensifying creation of transparency by selective partial reinforcement, extenuation or even elimination of individual acoustic parameters values, and furthermore, the previously also recorded specific "acoustic aura (audio ambience)" surrounding each individual sound component gains noticeable three-dimensional acoustic conciseness in the process of "space microscoping" (or rather: "acoustic location microscoping"). One only retains the most elementary acoustic presences of the toposonic lines, locations, movements, durations, colours and tempos of the alienated interior acoustic intensities and/or separates them in order to create "natural" and equally "artificially" consistent "toposonic" environments" with the help of consistency-creating mixes that continue with momentum of their own, and temporal successive series. Even a toposonic environment first represents a condition of temporary present and specific selection that appears "static" on the macro-structural level, the mix/blend and artificially composed "combination" of toposonic elements that are similar to themselves – or have been "made" similar to themselves by artificially created "loops / warps of self-intensification" with their own momentum and by chains of repetition. The micro-structural interior levels of this soundscape environment of artificial acoustic imaginary "habitats" and artificially produced "audio biospheres" are in turn marked by a high level of "interior" consistency that is

the disparate elements or the parameters (Deleuze, 1992: 469/470).

visually reproduced in fragments, and when the identification of said item is furthermore complicated by enlargements and selective visual depiction of details (in order to make the practically unknown dimensions of the exterior visual form and shape of the items visible), then during the process of toposonic microscoping, the concrete "acoustic matter of content and meaning", of the "naturally" created sounds and noises clearly linked to one individual, a natural (physical) phenomenon or a concrete item is turned into a seemingly "different, concrete matter of content" or frequently "dissolves" - the smaller you make the "audio fragment" and the higher you choose the magnification of sound microscoping – into more or less "abstract matter of expression". "In the mind of each listener, even beyond (extra)musical meanings and contents, in an "inter-zone", individual, audio-inspired imagination" is to "unfurl, in permanent fluctuation between (!) 'pure" naturalness and "sheer" abstraction. This is achieved even more expertly since, e.g. the animal voice, the natural sound or the human voice when singing, is also turned into "something else": "pure" line, "pure" space, "pure" colour, "pure" sound, "pure" rhythm, "pure" movement, "pure" becoming, ... "pure" state. ... The aim is no longer to develop a form or to force a shape on matter, but to create "ways of becoming" of alienated internal intensities and de-subjectivised affects. Form(s) should dissolve, e.g. to render the tiniest variations of speed between combined ("composed") locations and fast or slow movements to the state of immobility ("silence") audible. The artificially created toposonic soundscape created by the ToposonicArtist thus appears to be an ensemble of de-subjectivised matter of expression in a space,

References Benjamin, W. (1955) Das Kunstwerk Im Zeitalter seiner technischen Reproduzierbarkeit, in: Benjamin Schriften, vol. I,

⁴ A kind of "becoming a flower", represented by the process of blossoming. (up) ⁵ One way of "becoming a dog" is, for example, represented by the acoustic act of barking. The process of barking is an expression, that is "alienation" of an inner movement that results in an external movement, among others a movement of the air. The air in turn reaches and enters the ear of the listening human or animal. And thus, artificially formed/deformed air, caused by affects, is transformed into sound in an almost imaginary way! (up)

⁶ Paul Klee: "For we know that everything would have to pursue the path to the centre of the earth. If one scaled down one's point of view even more to the

microsope level, one once more arrives at the dynamic field, at the egg and the cell." (Creative Thought). (up)

⁸ If the epistemological statement according to which only the relationship of objects to each other, and not they themselves can be recognised as "those being <u>as</u> such", and that they are also determined by the position and the perspective of perception of the recogniser, and if Albert Einstein is correct in stating that space, time and mass depend on the condition of movement of the observer and therefore are relative categories, one can say with regard to music, that the "interior conditions of movement", the inherent affects caused by the music and the "inner emotionalities" of the listener / recipient, make it possible to experience the observance of "temporal relationships" of the most diverse relations between speeds - in an almost mentally "qualified" way. (up)