

**The Quivering of
Propriation:
A Parallel Way to
Music**

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Table of Contents

<i>I. Making Way to Music</i> _____	5
I.1 A parallel way _____	6
I.2 Music, metaphysically speaking _____	10
I.3 Making way _____	14
I.4 The quivering of propriation _____	22
I.4.1 Propriation and the gainful game _____	27
I.5 A remainder that cannot be gathered _____	30
<i>II. Thinking on Western music</i> _____	37
II.1 Subjectivist aesthetics (Adorno) _____	38
II.1.1 Meaningful musical language? _____	38
II.1.2 Musical technique _____	43
II.2 Phenomenology of Western harmonic-tonal music (Georgiades) _____	47
II.2.1 Rhythm in tonal music _____	49
II.2.2 Harmony in tonal music _____	51
II.2.3 Logically notated music _____	56
II.2.4 Words set to harmonic music _____	57
II.2.5 The dissolution of arithmetic harmony in the mathematical continuum _____	58
II.2.6 Making way to harmonic-tonal music _____	59
II.3 New Music is the Other Music (Cage) _____	63
II.3.1 The absolute zero of musical time-space _____	66
II.3.2 Spatiality of Cagean musical happening _____	69
II.3.3 Historical recasting of music's urfugue _____	71
II.4 Music as critique and subversion _____	73
II.4.1 Electronic music as social critique? _____	73
II.4.2 An attunement to being through electronic music? _____	79
II.4.3 Audible ecosystemics (Di Scipio) _____	81
II.4.4 A musical subversion of harmonically logical time (Feldman) _____	83
II.4.5 "The composer makes plans ... Music laughs" (Feldman) _____	87

I. Making Way to Music

The mad air quivered Unutterable
music.

Kingsley

Saint's Trag. (1848) iv. iv.

102

Oder als könnten wir in ein neues,
ahnungsvolles Verhältnis zum
ganzen Dasein treten, wenn wir
anfangen, mit dem Herzen zu denken.

Hugo von Hofmannsthal,

Brief des Lord Chandos

Or as if we could enter into a new
relationship to the whole of being,
full of inklings, if we began to think
with the heart.

Hugo von Hofmannsthal,

Lord Chandos' Letter

I.1 A parallel way¹

We are seeking a parallel way to music. The way is to be parallel to the way to language. From mathematics we know that parallel lines never meet, or that they intersect only at infinity, but this mathematical understanding of parallelism should not be allowed to throw us off the track. Instead, it should first be recalled where the word ‘parallel’ comes from. It is Greek in origin, and comes from *παρὰ ἀλλήλω*, meaning “next to one another”, or “near one another”. Thus, the way to music is supposed to lie next to and to run alongside the way to language, in itself a mysterious circumstance calling for elucidation.

Why should such a path be sought and embarked upon? Would it not be more appropriate to ask the question: What is the essence of music? or What are the essential foundations of music? This type of questioning is familiar to us through the long tradition of metaphysics. To seek a way to music is here supposed to indicate that a type of thinking that is no longer metaphysical is attempting to make its way, to make headway, or simply, to make way (*Be-wägen*). In seeking to make its way, thinking is to travel on a path that runs alongside the way to language in order to experience something essential and intrinsic about music, in particular, its parallelism to language. Travelling on a path and having regard for the parallel way to language is supposed to provide orientation for the journey which should allow us to experience music in a way that is profoundly different from how music has been thought about within the metaphysical tradition.

¹ Cf. also my earlier essay ‘Sprache (und Musik) nach Heidegger’ in Eldred 1993/2010. This essay has been taken up in some detail by Eduardo Marx 1998, who pursues the following project: “Thus a musical altercation becomes recognizable as a path of thinking which Heidegger himself did not take and also did not point out explicitly as a path to be taken, but which is nevertheless suggested.” (So gibt sich die musikalische Auseinandersetzung als ein Denkweg zu erkennen, den Heidegger zwar nicht beging und auch nicht explizit als einen zu begehenden auswies, der aber nahegelegt wird. *Vorwort* S. 7)

‘The Way to Language’ is the title of a late lecture that Heidegger held in a series of lectures sponsored by the Bavarian Academy of Fine Arts and the Academy of the Arts in Berlin in January 1959 under the title “Language”. The lecture is the final text in a series of texts and lectures which Heidegger wrote in the 1950s and published under the title *On the Way to Language*.² As the chronologically last text and the text which gives the volume its title, ‘The Way to Language’ could well be regarded as the final, mature fruit of a decade of intensive thinking and writing about language.

How are we to seek a way to music in parallel to a way to language? We can only do so by looking over toward the way to language to see how that way makes way. The formula announced at the beginning of ‘The Way to Language’ which is to serve as a thread for the way to language is: “Bring language as language to language.” This literal translation of “Die Sprache als die Sprache zur Sprache bringen” (242) is as such inadequate, since in German, “zur Sprache bringen” means simply ‘to thematize, to address (an issue), to express in words, to put into words’. The formula would thus have to be rendered in English something like: “Put language as language into words.” Heidegger points out that what seems at first to be a formula will be transformed while under way. In its final reformulation, the formula will become: “Die Be-wägung bringt die Sprache (das Sprachwesen) als die Sprache (die Sage) zur Sprache (zum verlautenden Wort).” (261), which can be rendered as “Making-way puts language (the essencing of language) as language (the saying) into language (into spoken words)”. Without having followed the path that leads to this ultimate reformulation of the apparent formula, this final rendering is initially incomprehensible. Furthermore, as we shall see, it no longer means a path of thinking which we travel along.

Here, for the moment, we only have to ask: What does this formula imply for the parallel way to music? On this path we are trying to make way to music by way of thinking in language. The essence of music, or music as music will not be put to music but, at best, it will be put into

² Martin Heidegger *Unterwegs zur Sprache* 1959/1986.

thoughtful words. This shows that the way to music in thinking must be a way that runs alongside any way that leads to music as tuneful and attuning tones. Thinking can only seek a parallel way to music, and it can only make way in words that show it the way. The way to music in words is necessarily a way that runs alongside and next to the way on which music as music makes way to music. The formula that can serve as a thread for an attempt to follow a path in thinking to music as music is the following: To put music as music into music. This formula has to be transformed into the parallel formula: To put into words the making-way of music as music into music. Since in thinking we are moving and making way in the medium of language, the “putting into words” in the formula is redundant. Later on, this formula will be elaborated and transformed into the as yet incomprehensible formulation: “Making-way allows music (the essencing of music) as music (the quivering) to come to music (attuned sounds)”.

The way to music that is attempted here (this must be openly admitted³) is plagiarism (from L. *plagiare*: to kidnap) in an essential sense for the sake of thinking which abducts another’s progeny and thoughtfully compels it to walk along another, parallel way.

The “as” in the formula should be noted. As we shall see, one signification of this *as* is that we humans hear music *as* music, music *qua* music. This should not be taken for granted as something self-evident. We can be sure that many animals hear music, but do they hear music *as* music? No, they don’t. The metaphysical delineation of human being as the living being that has the *λόγος* provided by Aristotle e.g. in his *Politics* is usually understood as the ability of human beings to speak, which includes of course that we can also listen; or it is taken to mean, more fundamentally, that we are ‘rational creatures’. It would be too superficial now to claim instead that we human beings are essentially beings who can hear music as music, but this being-able-to-hear is presumably related to *λόγος* and *λέγειν* if this is taken in the sense of a gathering. In listening to music, we are able to *gather* that it is music and can thus hear it *as* music. *That* something is, i.e. its *existentia* or

³ Cf. *ibid.* esp. pp. 243 - 267.

Daßsein, depends on λέγειν as a gathering-that... Of what nature is this gathering that grants the *as* of music? In the further course of our way to music it will become apparent that the gathering is related to an attunement. Such relatedness (πρός τι) derives from the parallel ways. Needless to say, such attunement as an issue for thought lies outside the ambit of metaphysical thinking.

I.2 Music, metaphysically speaking

Music: We mean making music and listening to music as human activities. Some people are musical and others are not. By this we usually mean that someone has an ear for music, whereas another is tone deaf. Music is an acoustic phenomenon; its material is sounds or tones produced by various instruments or devices, or the human voice. These sounds are ordered in some way, whether it be in a tonal form, an atonal form or some other form depending, say, on contingency. A musical work structures a time-space for us acoustically in some way or other and requires both performers and listeners. This acoustic time-space is formed tunefully, where “tuneful” is taken in the broadest possible sense to mean that music attunes us in some way or other, whether harmoniously or dissonantly or whatever, and that by our very nature we are attuned to the resounding of musical sounds.

Music, however, is not just musical sounds formed in some way or other, but is said to have some sort of meaning. Often this is described by saying that music is the language of the emotions. The view that music signifies something goes back to the ancients, i.e. to Plato and Aristotle. At the beginning of the Aristotelean text entitled *Περὶ Ποιητικῆς* we read:

ὥσπερ γὰρ καὶ χρώμασι καὶ σχήμασι πολλὰ μιμοῦνται τινες ἀπεικάζοντες, οἱ μὲν διὰ τέχνης οἱ δὲ διὰ συνηθείας, ἕτεροι δὲ διὰ τῆς φωνῆς, οὕτω κἀν ταῖς εἰρημέναις τέχναις ἅπασαι μὲν ποιοῦνται τὴν μίμησιν ἐν ῥυθμῷ καὶ λόγῳ καὶ ἀρμονίᾳ, τούτοις δ' ἢ χωρὶς ἢ μεμιγμένοις· οἷον ἀρμονία μὲν καὶ ῥυθμῷ χρώμεναι μόνον ἢ τε ἀύλητικῆ καὶ ἢ κιθαριστικῆ κἀν τινες ἕτεραι τυγχάνωσιν οὔσαι <τοιαῦται> τὴν δύναμιν, οἷον ἢ τῶν συρίγγων· αὐτῷ δὲ τῷ ῥυθμῷ μιμεῖται χωρὶς ἀρμονίας ἢ τῶν ὀρχηστῶν, καὶ γὰρ οὗτοι διὰ τῶν σχηματιζομένων ῥυθμῶν μιμοῦνται καὶ ἦθη καὶ πάθη καὶ πράξεις.
(1447a19-29)

Some make representations using colours and forms, making images of many things (some by art, and some by customary use), and others do so with sound; so too all the arts we mentioned make a representation through rhythm, speech and harmony, but use these either separately or mixedly. E.g., the art of playing the oboe and lyre, and any other arts that have such a potential (e.g. that of playing the pan pipes), use harmony and rhythm alone, but the art of dancers

[uses] rhythm by itself without harmony; for they too can represent stances/characters, moods/emotions/experiences and actions, by means of rhythms given form. (Trans. Richard Janko, mod. ME)

The πάθη mentioned at the end of this quotation can mean mood, emotion, experience and in general, that which happens to us and affects us and thus that which we suffer through in the broadest possible sense. The πάθη come to pass over us and arouse our passions in putting us in a mood, i.e. an attuned mode of being.

The Aristotelean conception of music as a representation parallels his conception of language as a representation in signs of the ‘sufferings’ of the psyche in being affected by what matters to it. What matters to the psyche is represented in the πάθη, and the latter are represented in spoken sounds, and these, in turn, in writing, which are signs for the spoken sounds (cf. the beginning of *Περὶ Ἑρμηνείας*). This Aristotelean conception of music, through all its modifications, is with us to the present day in theories of musical meaning. Thus e.g. we find in *Encyclopaedia Britannica* the following note on Schopenhauer:

Schopenhauer looked upon Platonic Ideas as objectifying will, but music is

“by no means like the other arts, the copy of the Ideas, but the copy of the will itself. This is why the effect of music is so much more powerful and penetrating than that of the other arts, for they speak only of shadows, but it speaks of the thing itself.”

Schopenhauer acknowledged a connection between human feeling and music, which “restores to us all the emotions of our inmost nature, but entirely without reality and far removed from their pain.” Music, which he is presenting as an analogue of the emotional life, is a copy or symbol of the will.

In Schopenhauer’s metaphysics, “will” is the title for the essential being of beings which is represented (“vorgestellt”, placed before us) in music. The commentator in *Encyclopaedia Britannica* already misrepresents Schopenhauer by speaking of a “copy or symbol of the will”. Why? “Because music does not, like all the other arts, represent the *ideas*, or stages of the objectivation of the will, but represents the *will itself*.” (Weil die Musik nicht, gleich allen anderen Künsten, die *Ideen*, oder Stufen der Objektivation des Willens, sondern den *Willen selbst* darstellt. Schopenhauer 1977 Kap. 39, S. 527)

Whether theories of musical meaning are “referentialist” (referring to meanings outside the music itself) or “formalist” (being autonomous and thus only ‘meaning’ itself), the problem of emotion in music remains to be dealt with, as *Encyclopaedia Britannica* notes: “The Austrian critic Eduard Hanslick, in his *The Beautiful in Music* (German edition published 1854), was a strong proponent of music as an art of intrinsic principles and ideas; yet even Hanslick, ardent formalist though he was, struggled with the problem of emotion in music.” Thus the idea prevails that the sounds of music are signs and signify something to do with emotions and moods. In slightly modifying a passage in Heidegger’s ‘The Way to Language’ it can be said: “Music is represented from the viewpoint of musicking with regard to articulated, structured sounds which are the / bearers of meanings. Musicking is a human activity.” (cf. UzS:245f)

According to the well known Swiss conductor Ernest Ansermet in his *opus magnum*, *Les fondements de la musique dans la conscience humaine*, which appeared in 1961 toward the end of the conductor’s life, the physiologically perceived vibrations that are received by the body’s sense organs are mirrored or reflected, i.e. represented, in consciousness, “since bodily affectedness is [...] already the ‘mirroring reflection’ of physiological phenomena”.⁴ From this realist-materialist starting-point of musical tones as a mirroring reflection in consciousness of physical and physiological processes, whereby the latter come to be represented in consciousness, Ansermet intends to show “how, in a resonant space, a spatio-temporal world is constructed from tonal structures and gains in form” (652) whose “emergence” is “in the cochlear area” (ibid.)

We see that it is highly probable that electrical waves form for a duration on the basilar membrane which correlate to the perception of a tone. When tones that sound simultaneously are heard, other waves are formed here. Consequently, in the reflection of the phenomenon and in the gaze of perceptive consciousness,

⁴ Ernest Ansermet *Les fondements de la musique dans la conscience humaine* Edition de la Baconnière, Neuchatel 1961 German ed. *Die Grundlagen der Musik im menschlichen Bewußtsein* Piper Verlag, Munich, 1965 transl. H. Leuchtman / E. Maschat p. 641. All citations are from the German edition. The English translations are my own.

the tonal positions make a movement in space and time, whereas in simultaneity they form harmonious chords as if, in the cochlear area, a double train of waves had been formed, one of whose waves runs longitudinally in time, while the other is transversal and momentary. (Ansermet op. cit. 653)

Such physiological processes, according to Ansermet, are synthesized into a musical experience:

Let us now imagine the above tonal schema [an example of three bars of music ME] as a spatial structure. In the cochlear emergence of this structure, the momentary wave which arises when the simultaneously vibrating tones are heard and which links the various cochlear positions with each other in a single act of perception, has made a synthesis of tonal positions out of the harmony of tones, just as a molecule is a synthesis of atoms. (ibid. 654)

What underlies all these considerations of the formation of tonal structures on a materialist basis is Ansermet's (anthropological) conviction that "the feeling for music arose at the same moment when humans discovered music in tones. Humans, however, only discovered their musicality and music because they possessed an activity of the soul within themselves for which they felt the need to express in itself." (ibid. 646)

This anthropological explanation takes time as a pre-given dimension for a narrative about how "humans discovered music" by expressing a movement of the soul inside in tones outside, thus exemplifying the basic metaphysical position of the fundamental Aristotelean prescription of the essence of music as representation already cited above from the *Poetics*.

I.3 Making way

To the present day, what is essential to music has been regarded as inhering in musicking as sounds or tones brought into a form. To recur to the formula of the first section, it can be asked: Does this conception of music appropriately describe the putting of music as music into music? The traditional metaphysical way to music sets out in the direction of humankind; it leads through music to something else: to the representation of human emotions in tonal signs, in a language of emotions. The essence of music conceived of with regard to something else, however, does not already point toward or point out the essencing of music, the mode in which music holds sway and whiles as music, i.e. rests, gathered into what allows music to come into its own as music.

If we carefully follow the track of music as music, then we have already renounced the procedures for regarding music that have hitherto prevailed. We can no longer treat music as the representation of human experiences, nor as a mirroring of physiological sense data in tonal consciousness, nor as a formal structure of harmonious sounds, no matter how conventionally or unconventionally ‘harmony’ is understood, nor as a representation of anything at all. Instead of explaining music as this or that, and thus fleeing from music, the way to music wants to go through an experience (*eine Er-fahrung*) of music as music. In defining the essence of music as a representation or expression, music is indeed comprehended, but it is grasped by something other than itself. If, on the contrary, we pay attention to music as music, then it demands of us that everything that belongs to music as music be brought out into the open.

It is one thing to collect and order various elements that reveal themselves within the essence of music, and another to gather one’s gaze into that which of itself unifies what belongs together insofar as this unifying dimension grants the essencing of music its own unity.

The way to music now attempts to follow more strictly the thread which the formula names: To put into words the making-way of music as music to music. The aim is to come closer to what is intrinsically characteristic of music. Here too, music shows itself at first as our

musicking. We pay attention now only to what is always already resonating alongside when musicking, and that in the same measure, whether it is noticed or not.

People making and listening to music (i.e. musicking in the broad sense) belong to music as an activity, but not in the sense of cause and effect. Rather, those musicking have their presence, and thus present themselves, in musicking. And where are they present? They are present with what they use for musicking; they are present where they while with what already affects them in individual and multifarious ways. What affects them, each in its own way, are other people and things and everything that attunes these people and affects these things as a whole. In musicking for each other, whether it be directly in bodily presence, i.e. live, or indirectly through the media, a whole range of moods is made to resound in one way or the other; it is modulated and perhaps developed, attuned in such a way that those musicking by making and listening to music attune each other and themselves. The songs sung with voice and/or instruments, alone or together, are manifold. What is musicked may disappear without leaving a trace or it may be preserved or linger on in some way or other. What is made to resonate in music may be long past, or it may have been long since allotted as a music destined to be brought to resonance.

What is sung in the broadest sense of musicking, whether vocal or not, originates in manifold ways from what is unsung, what is unmusicked, whether this be what has not yet been musicked or what must be left unmusicked in the sense of what is withheld from music. Thus what is musicked, i.e. brought to resonance in music in manifold ways, has the appearance of being removed from music-making and music-makers and does not belong to them, whereas in truth it holds up to music-making and music-makers that toward which they comport themselves, no matter how they dwell in what is musicked from the unmusicked origin.

A multitude of elements and relations becomes apparent in the essence of music. They have been counted, but not put into a sequence. In going through them in an originary accounting which is prior to any calculating with numbers, their belonging-together has been announced. Counting is a recounting which looks ahead to what unifies this

belonging-together without, however, being able to bring it out into the open.

The impotence of thinking's gaze that becomes apparent here, to experience the unifying unity of the essencing of music, is an age-old heritage. This unity, therefore, has remained unnamed. The traditional names for what is meant by the name "music" always name it in one respect or another which is doled out by the essencing of music.

Let the sought-for unity of the essencing of music be called the *fugue*. This name calls on us to look more carefully at what properly characterizes the essencing of music. A fugue is a musical composition in which several themes, which in their difference flee (L. *fugere*) from each other, are nonetheless held together by means of the laws of contrapuntal harmony. Here, by contrast, the fugue is taken to be the entire manifold of originary tunes or moods of a time held together and adjoined in the articulated unity of that fugue which resonates through and originally opens up the free dimension of attunement that comes to resonate in manifold attunements. The fugue is here the originary articulated reverberation of the essencing of music, the total structured quavering of attunements in which those musicking and what is musicked and its unmusicked origin are joined in what has been allotted and conceded by the fugue.

"Essence" is a word laden with meaning from the tradition of metaphysics, and is derived from the Latin stem "esse", "to be". The essence of something is what it is in its deepest, most intrinsic, unchanging sense, it is its 'whatness' or, in Latin, 'quidditas'. In German, "essence" is rendered as "Wesen", which is itself one of the forms of the verb "Sein". "Wesen" comes from the stem 'wes-', which is also preserved in English in the past tense of the verb "to be": "was" and "were". In Old English, the infinitive and present participles of the verb "to be" were still able to be formed using the 'wes-' stem; the present infinitive was "wesan", the present participle "wesende" (cf. the OED). The essence of music means what music is most intrinsically, in its innermost being; the *wesan* of music is its most characteristic, ownmost being. Forthwith we will rename the essence of music its *wesan* and, to put its ongoing, temporal character into words, we will call and name it

by using the archaic present participle, the *wesende of music* instead of a less unusual 'essencing of music'.

The fugue as the unified, ongoing *wesende* of music remains hidden and muffled even in its approximate reverberation as long as we do not take care to note in what sense already musicking and what is musicked have been spoken of.

Musicking is a making of sounds. It can also be conceived of as a human activity. Both are correct conceptions of music as musicking. Both are now put to one side, without us wanting to forget for how long the sounding of music has already been waiting for an appropriately attuned definition; for, the acoustico-physiological, emotionally expressive and harmonic explanations of sound-making and musicking do not experience their provenance in the peeling of stillness. Still less do they experience the attuned definition of sound-making which stems from and resonates with this origin.

In what way, however, have musicking and music been thought in the brief recounting of the *wesende* (essencing) of music given above? They already show themselves to be phenomena through which and in which something makes way to music, i.e. comes to resonance, *insofar as music is made*. Making mere sounds and making music (musicking) are not the same thing. Somebody may produce a lot of sound, even on the stage of a concert hall to a large audience, but it is only noise. By contrast, someone else may scarcely make an audible sound, or make no sound at all, and with this silence make music.

But what does it mean to *music*? To experience what this phrase says we are bound to what our language itself calls on us to think in this word. "To music" is a nonce-verb to the noun "music", from Greek μουσα, the mountain nymph who inspires the singer to sing. The singer can only sing when attuned with the musical source, and thus inspired through breathing in the spirit, his or her singing temporarily and temporally permeates and colours existence as a whole with a particular mood or moods. Mood is the way the world is open to us momentarily as a whole in any particular situation at any particular time. It is the way we find ourselves in any particular situation, whether downcast or uplifted

or on even keel. Musicking must therefore be understood as an opening of world in a particular *way* in bringing a mood to resonance.

We are saying something self-evident and yet something that has scarcely been pondered on in its significance and ramifications when we point out the following. To sing to each other in musicking means to bring each other to resonance, to reciprocally let oneself go with the mood of the music. To music with each other (albeit only by humming a tune or by saying something or moving one's body or just one's face in a certain way) means: to make something resonate together, to bring to resonance the tune that inheres in the music played and thus to allow a certain attunement to vibrate. What is unheard is not only that which lacks acoustic sound in not having been made audible, but is also the unmusicked, i.e. what has not yet gained resonance in an attunement. That which has to remain unheard is withheld in the unmusicked; it whiles as a hidden secret in muteness as that which cannot be made to resonate in an attunement, perhaps even for an entire age. What is granted to resonance resounds as an attunement in the sense of what has been allotted, whose resounding does not even need any sound.

Musicking, as the resounding of an attunement, belongs to the fugue of the *wesende* of music which is permeated by the modes and melodies of resonance in which moods are announced, conceded and denied, come to resonance and amplitude in attunement or withdraw, ebb and fade. What runs through the entire fugue of the *wesende* of music is the manifold resounding of attunements from various provenances. With regard to the relations or rapport of attuned resounding, we call the entirety of the *wesende* (essencing) of music the *quivering* and admit that, even now, what unifies these relations of attuned resounding in the fugue of music has not yet come into sight.

The word "quivering", like many other words in our language, is today usually used in a pejorative sense. "Quivering" is regarded as a description for that which is not firm, which shakes and trembles (perhaps with fear) and thus is not steadfast, robust and sturdy, perhaps wavering, ill-defined, ambiguous. The earth may shake and quiver in an earthquake that brings destruction. A person or an animal may quiver with fright or agitation (the OED quotes: "His hand trembled and his

flesh quivered.” 1869), but perhaps also with sheer, overbrimming vitality. The quivering or rapid agitation of the prongs of a tuning fork allows a pure tone to resound. People quiver with emotions resonant with a situation. Quivering may possess the unreleased tension of a potential for movement. Every situation is resonant with the quivering of a mood which attunes those who are currently, i.e. temporally, in that situation. Quivering is the hearth in whose radiance the attunement of moods can come to resonance. We can understand quivering from the attunements which resonate with it.

The wesende of music is quivering as the attuning of a mood. A mood is the mode or colour of any given situation. We humans are open to this originary quivering as an opening of world in a given time, and can therefore resonate with it in an attunement or a mood. Quivering’s attuning is not based on any feelings or sensibilities, but rather, all feelings and sensibilities stem from an attuning quivering within whose resonance feelings as such can be felt.

With a view to the fugue-like character of quivering, we must not ascribe attuning exclusively or primarily to human activity. Attunement as resonance characterizes the presence and absence, the resounding and fading of moods of all kinds and degree in an age. Even when attunement is brought about by our musicking, this attuning as the striking of a chord is preceded by a propensity and proclivity to resonate in a mood.

Only when we think about our attunement in this regard can an adequate characterization of the *wesende* in all musicking be achieved. We know about musicking as a structured production of sounds by means of musical instruments and voices. But making music is also listening. Usually, making music and listening to music are counterposed to each other. Some make music and others listen. But listening accompanies and encloses musicking not only in the sense that music requires listeners. The simultaneity of making music and listening means more than this. Making music is in itself a listening. It is a listening to the music which we music. Thus musicking is not a listening at the same time, but is rather a listening *beforehand*. This listening to music precedes all other kinds of listening in the most imperceptible

way. We do not just make music, but we music out of music. We can only do this by virtue of having already listened to music. What do we hear? We hear the musicking of music.

But does music itself music? How could music do this, since it does not have any musical instruments nor a voice with vocal cords, mouth, tongue, etc. Nevertheless, *music* musics. In the first place and properly speaking, music follows the *wesende* (essencing) of music: the quivering. Music musics by quivering, i.e. by attuning a mood. Its quivering emanates from the once musicked and still unmusicked quivering which vibrates throughout the fugue of music's *wesende*. Music musics as attunement by reaching into all ranges of attunement from which moods are brought to resonance or fade. Accordingly, we listen to music in the mode of allowing it to attune us with its quivering. No matter in what other modes we also listen, whenever we listen to something, listening means *allowing oneself to resonate with the quivering* thus enabling all apprehension of mood and feeling. In musicking as this fundamental listening to music, we are attuned to the quivering that we have already heard and make it resonate. We let music's silent voice come and we reach toward the sound that has been reserved for us and call for it. Within the fugue of the *wesende* of music, at least one trait has now announced itself more clearly in which we see how music as musicking is brought back into its own and thus musics as music.

When musicking, as listening to music, lets itself be attuned by the quivering, this letting-be can only be granted insofar and insonear as our own *wesan* (being) is immersed in quivering. We only hear it because we belong to it. Quivering only grants listening-to-music, and thus musicking, to those who belong to it. Such granting whiles in quivering. It lets us reach the ability to music. The *wesende* of music rests in quivering that grants the reach to musicking.

And quivering itself? Is it something completely separated from our musicking to which a bridge has to be built? Or is quivering the stream of stillness which itself bridges its banks, of attunement and our musicking, by forming them? Our usual ideas about music can scarcely reach this point. Quivering — when we try to think the *wesende* of

music starting from it, do we not run the risk of inflating music into a fantastic, autonomous being which cannot be found anywhere as long as we think soberly and circumspectly about music? Music remains, after all, inextricably bound to human singing and musicking. To be sure. But what kind of bond is this? Whence and how does its binding hold sway and bind? Music needs human musicking and is nevertheless not merely something made by our activity in musicking. Wherein lies the essence of music? On what is it grounded? Perhaps we are asking in a direction that misses the wesende essence of music when we ask for grounds.

Is quivering itself the resting which grants rest to what belongs together in the fugue of the wesende of music?

Before we think about this further, let us once more pay attention to the way to music. Initially it was said: the more clearly music comes into sight as itself, the more decisively will the way to it change. Up until now, the way had the character of a path which leads our thinking in the direction of music within the strange interweaving of relations named by the formula for the way to music. We started from ideas about the essence of music as a formal structure of sounds or as a language of emotions or as a transformative mirroring of acoustic vibrations in consciousness to form tonal structures. After that, there came a recounting of what belongs to the structural fugue of music. By following this path in thought we reached music as quivering.

I.4 The quivering of appropriation

With the explanatory recounting of the *wesende* of music as quivering, the way to music from music as music has reached its destination. Thinking has arrived after travelling along the way to music. It seems to be so and it is so as long as the way to music is taken to be a path of thinking which thoughtfully follows the track that leads to music. In truth, however, thinking now sees that it has only just been brought to the *way to music* and has scarcely been set upon its track. For, in the meantime, something has become apparent in the *wesende* of music which shows that in music as quivering, something resembling a way holds sway.

What is a way? A way allows somewhere to be reached. It is quivering which, insofar as we listen to it, allows us to reach the musicking of music.

The way to musicking whiles in music itself. The way to music in the sense of musicking is music as quivering. What is characteristic and proper to music thus hides itself in the way in which quivering lets those who listen to it come to music. We can only be these listeners insofar as we belong to quivering. The way that lets us reach music comes already from being enabled to belong to quivering. This belonging shelters what is properly *wesende* in the way to music. But how does quivering hold sway that it is able to enable and grant such belonging? If at all, then the *wesende* of quivering in its own right must announce itself as soon as we pay attention insistently enough to what recounting has yielded.

Quivering is attuning. In everything which affects us, which touches us as a mood that has been brought to resonance, which attunes us, which waits for us as the un-musicked, but also in the musicking which we ourselves perform, attuning holds sway which lets moods reverberate and fade. Quivering is in no way a supplementary expression of mood; rather, all moods and their fading reside in and rest on attuning quivering. Quivering liberates moods into their proper reverberation and retracts other, fading moods into their dying resonance. Quivering permeates and composes the free fugue in the resonant temporal clearing

which all moods have to seek out and from which all spent moods fade, in which all resonance and fading away have to reverberate.

Quivering is the composing gathering of the intrinsically many-fold modes of attunement which conducts the fugue of all attunement and in each case enables each mood to remain with itself.

Whence does attuning come? This question asks for too much and too impetuously. It suffices to pay attention to what stirs in attuning and brings its stirring to differentiated fruition. Here we do not need to search tediously. The simple, sudden, unforgettable and therefore perpetually fresh gaze into what is familiar to us suffices. Although it is familiar, we do not even try to get to know it, let alone to gain knowledge of it in an appropriate way. This unknown, familiar element which stirs all attuning of quivering into reverberation is, for each and every mood, whether reverberating or fading, the early morn of that morning on which the change of day and night first raises itself as a possibility: what is earliest and primordially ancient at one and the same time. We can only name it, because it does not tolerate being discussed at length, for it is the locality (birthplace) of all places and spaces for the play of time. We use an old word to name it and say:

*What stirs in quivering's attuning is propriety.*⁵

Propriety brings each reverberating and fading mood into its own from which its characteristic attunement resonates and whiles according to its nature. Let the propriety which brings by stirring quivering as attunement into its attuning be called *propriation* (*Ereignis*). Propriation grants the free openness of the reverberant, temporal clearing into which an attunement can reverberate and from which a fading mood can fade and in its withdrawal preserve its whiling. What propriation grants through quivering is never the effect of a cause, never the consequence of a determining reason. Propriety which brings anything into its own, i.e. *propriation*, is more granting than any effectiveness, making,

⁵ In a sense perhaps most akin to OED: 'propriety' **3**. Proper or particular character; own nature, disposition, idiosyncrasy; essence, individuality; sometimes, proper state or condition. Now *rare*.

producing or grounding. What is appropriating is appropriation itself, and nothing else besides. Appropriation, viewed here in quivering's attuning, cannot be conceived as an event nor as a happening nor as an act; in the neighbourhood of music it can only be experienced in quivering's attuning as that which grants moods. There is nothing else to which appropriation leads further back or from which, in terms of which, it could be explained. Appropriation is not a result given by something else, but is itself the granting whose reaching giving first grants something resembling a "let there be..." which even beyng itself needs in order to come into its own as presencing. Whereas beyng as presencing allows each being its presence in and absence from the clearing, quivering is the resonant accompaniment to beyng that grants the temporal coming and going of moods which holistically colour the clearing.

Appropriation gathers the fugue of quivering and unfolds it into the fugue of many-fold attunement. Appropriation is what is most inconspicuous among the inconspicuous, the simplest among the simple; it is what is nearest among the near, what is farthest among the far, and that within which we mortals dwell during our life-time.

We can only name the appropriation that holds sway in quivering by saying: Appropriation appropriates. If we say this, we speak in our own, already spoken language.

Appropriation grants mortals their dwelling in their *wesan* so that they can be the ones who speak and music. (Even the mode of speaking, the way or how of speaking is in this sense music.) If law is understood as the gathering of that which enables everything to presence appropriately, i.e. to come into its own in the proper way, then appropriation is the plainest and gentlest of all laws. Appropriation is of course not a law in the sense of a norm which somehow hovers over us; it is not an ordinance which orders and regulates a process.

Appropriation is the law of all laws insofar as it gathers mortals into appropriation to their *wesan* and holds them there.

Because the attuning of quivering is part of propriety, being able to listen, to sense and feel also rests on quivering, on belonging to quivering in appropriation. In order to see this in the entirety of its ramifications, it would be necessary to think through the *wesan* of

mortals sufficiently in its interrelations, and of course appropriation as such. Here, a hint will have to suffice.

In having its eye on human being, appropriation appropriates mortals by giving them over to that which grants itself to humankind in quivering from everywhere toward what is encrypted. The enappropriation of humankind as the ones who are attuned to quivering is characterized by its releasing human being into its own, but only so that humans, as the ones who music, respond to quivering in their very own way. This is the making of music. The responding music of mortals is already an answer: a listening, attuned, accommodating musicking. The enappropriation of mortals to quivering releases human being into usage whence it is used to put soundless quivering into resounding music.

Through enappropriating usage, appropriation allows quivering to reach resonance in music. The way to music belongs to the quivering that resonates out of appropriation as an accompaniment, parallel to the way to language that belongs to the saying defined out of appropriation. What is characteristic of music encrypts itself on this way which belongs to the *wesende* of music. The way is appropriating: appropriation appropriates human being for its use through enappropriating it to quivering.

To make a way, e.g. through a field covered with snow, is called “*wëgen*” even today in Alemannic-Swabian dialect. This verb, which is used transitively, means: to form a path, to keep it ready for use through forming it. Thought in this way, *be-wëgen* (*Be-wëgung*, not *Bewegung*, movement) no longer means to move something along a way which already exists, but to make the way. Making way (*Be-wëgung*) is the originary movement that first makes the way and thus is the way.

Appropriation appropriates humankind into usage for itself. In appropriating attunement as its own property, appropriation is the making way of quivering to music, just as, in parallel, in appropriating pointing as its own property, appropriation is the making way of saying to language. The formula for the way to music thus becomes:

Making-way brings music (the fugue as the wesende of music) as music (quivering) to music (resounding song). In talking of a way to music, it now no longer means merely and primarily the path of our thinking which thinks about music. The way to music has changed on

the way. It has been displaced from our activity into the appropriated wesende of music. But the change in the way to music only seems to us, from our own standpoint, to be a displacement that only now takes place. In truth, the way to music has always had its sole locality (birthplace) within the wesende of music itself. This, however, also means that the way to music in the first sense does not become superfluous, but only becomes possible and necessary through the way proper, the making-way that appropriates and uses. For, because the wesende of music rests in appropriation as attuning quivering, which hands us humans over to the serenity of free, attuned listening, only the making-way of quivering to music opens up to us the paths on which we think about the proper way to music.

The formula of the way: *bring music as music to music*, contains not only an instruction for us as the ones who are thinking about music; it also says the form of the fugue as the formal structure within which the wesende of music, resting in appropriation, makes way. This formal structure announced by the formula seems to express a network of relations in which music is entangled. It seems as if any attempt to imagine and represent music requires dialectical contrivances to master this entanglement. Such a procedure instigated by the formula neglects, however, the possibility of letting oneself reflectingly into the movement of making way to view the simplicity of the wesende of music, instead of wanting to represent it imaginably to the mind's eye.

What seems like a tangled network disentangles itself, when viewed from making-way, into the liberation brought about by the making-way eventuating appropriatingly in quivering. Making-way releases quivering into musicking. It clears the way on which musicking as sensitive listening captures what is to be musicked from quivering and elevates what it captures to music. The making-way of quivering to music is the releasing bond that binds by ap-appropriating to itself.

Released into its own free element in this way, music can concern itself solely with itself. This sounds like talk of an egoistic solipsism. But music does not insist on itself in the sense of a merely egocentric self-mirroring which forgets everything else. As music, the wesende of

music is appropriating attuning which deflects from itself precisely in order to liberate what is attuned into the propriety of its own mood.

Music which musics in quivering is concerned that our musicking, in listening to what is unmusicked, responds to music's quivering. Thus, silence too, which is often slipped under music as its origin is already a responding. Silence responds to the soundless pealing of the stillness of appropriating-attuning quivering. Quivering that rests within appropriation is, in attuning, an ownmost mode of appropriating (as melody) that is parallel to the way language comes to speech. Appropriation is attuning. Music thus musics according to the mode and melody in which appropriation reverberates or withdraws.

I.4.1 Propriation and the gainful game

A thinking pondering on *propriation* can still only surmise this, but nevertheless already go through the experience of it in the *essence* of modern economy that has been named with the still strange name of the *gainful game* or the *gathering of the gainable*.⁶ Insofar as the gainful game entices humankind to reach out to gain all that seems or is valuable, the gainful game prevails in the mode of appropriation in such a way that it obscures appropriation at the same time, because all gainfully reaching-out-for is borne by a grasping mood responding to the quivering of the gainful game. Appropriation is thus inverted in the gainful game as if it were the human players who were to be the gainers of all beings have to offer. Human musicking is enticed to respond upbeat to the gainability of all that is in every direction.

Musicking enticed in this way becomes commercial, venal music catering to popular taste which at the same time it shapes. Commercial music itself is out for gain by being sold. It is only bought in being valued as in tune with the mood of modern lives en masse. In the age of 'here comes everybody' (Joyce), to be gainful, commercial music needs the mass market on which it is valued as being in tune with the mood of the times, and conversely, commercial music attunes masses of people

⁶ Cf. Eldred 2008/2010 Chapter 9 vi) and Eldred 2000/2010, where the essence of capital is called the Gewinnst (awkwardly rendered in English as 'the win'). The gainful game is the Gewinn-Spiel.

by bringing certain timely moods to resound pleurably. Commercial music has to continually surmise which tune will attune and resonate with the music market's likes or a segment or niche thereof; it deals in moods by catering to them and/or awakening them. Musicians can only live and support themselves *as* musicians in the gainful game by having their music valued on the large or small market representing the audience to which they appeal in the double sense of the word. Their musicking is always at the pivotal point between, on the one hand, catering, or even pandering, to the mood of the times, especially on mass markets, and, on the other, awakening a mood by being receptive to the quivering of appropriation making way to music, through which humankind can be captivated by an attunement emanating from the quivering.

Music is appreciated and valued, including monetarily, by catering to and moulding people's tastes that, in turn, resonate unknowingly with the mood of an age. Music does this at first and for the most part by repeating the well-worn, habituated melodies that people have come to accept and love as music evoking a familiar mood or time, but also by creatively catching the mood of a time and putting it to work in a musical work, which may be simply a pop song. People, the subject created by the mass market, only gradually learn to distinguish music from noise, and appreciate a music *as* music, through a process of habituation enabling them to appropriate the sound *as* musical (which is a hermeneutic phenomenon) and appreciate the music as resonating with the life of the times. The musical experience thus familiarized becomes the repetition of something familiar, assuring listeners of their world, its mood, and keeping this world open. For this reassurance of world, and also for the uplifting of their mood, listeners will pay, and from this willingness, venal music, whether high or low brow, derives its market value. There is, however, another music that explores the outer reaches of the hitherto unheard in the attempt to tune into it and allow it to come to resounding resonance in a musical work. Such musical composing ignores the gainful game, taking place on its margins, and devotes itself to resonant possibilities beyond what is already appealing.

Propriation is attuning. This sounds like a statement. If we only hear a statement, then it is not what has to be thought. Quivering is the mode in which propriation musics; it is mode thus not so much as a type or kind but mode as mood and μέλος, the melody that attunes, since propriation's quivering brings moods to reverberate in their own right; it allows them to resonate in their own wesan (beyng) as the temporal colouring of the clearing.

Language has been called "the house of being". Language's sister, music, is the ineffable reverberation of quivering in and around that house. It is the care for quivering insofar as its reverberating remains entrusted to the appropriate, appropriating attunement to quivering. Music is the care for quivering because, as the response to quivering, it is propriation's mode as melody that may bring an age to resonance.

In order to think about the essencing (wesende) of music and to say what properly belongs to music, a change in music is necessary which we can effect neither by force nor through invention. The change cannot result from acquiring a new kind of music. The change touches on our relationship to music, our rapport with music. This relationship is determined by the destiny of whether and how we are kept in rapport by the wesende of music as the originary quivering of propriation, since propriation, in appropriating, holding and holding-itself-back is the quintessence of all binding holds. For this reason, *our* musicking as a response always remains held in the binding hold of a rapport. Rapport is thought here throughout against the foil of propriation and no longer merely in the form of a relation between terms. Our rapport with music, our binding bond with music is determined by the attuned mood and mode in which we belong to propriation's quivering as those who, in belonging and therefore listening sensitively, are used by propriation for its resonating.

I.5 A remainder that cannot be gathered

The way to music has come to an end, or rather come into its end in culminating in the formula: *Making-way brings music (the fugal structure as the wesende of music) as music (the quivering of appropriation) to music (resounding song)*. In this formula, the final occurrence of music is musicking as the human activity of making certain ‘musical’ sounds. But is making sound the only way in which humans respond to and resonate with quivering? Let us listen to what language says about music. The OED includes under the entry for ‘music’ a colloquial expression: “to make music” or “to make (beautiful) music (together)” as meaning “to have sexual intercourse”, to make love. This linguistic usage can be taken as a hint that the understanding of music should not be restricted exclusively to an art-form involving playing on instruments and singing with voices, but should be extended to cover the moodful mode of bodying. “Bodying” here is the present participle of a verb, “to body” meaning, “to exist bodily”. Dasein (human being) as finite existence in the world is always a bodily existing; its existing is always a bodying which itself is a physical being-moved and moving oneself. Speaking, singing, sitting, walking, sleeping are ways of bodying, of moving oneself physically, and each way is a mode which is attuned — in some way or other, even to the point of being completely out of tune — to quivering, i.e. to the vibration of a situation as a whole in Dasein’s timespace, through which it moves in existing. Insofar as bodying is attuned to quivering, i.e. has a sense for and is sensitive to the mood emanating from quivering, it is beautiful. Such beauty is the way music (the quivering) makes way to music. Since attunement is the mooded how of being-in-the-world in being moved by quivering, all existence is tuneful in the broad sense of a temporary and temporal vibe of moving being-in-the-world. Such attunement of existence is only possible because Dasein irrevocably belongs to appropriation; indeed, appropriation eventuates *as* Dasein in Dasein’s attuned-moved belonging to it. Dasein’s tunefulness, human being’s essential musicality, is nothing other than its moved attunement with the

quivering of appropriation that enables also its receptiveness for the musicking of musicians.

If music as human musicking is a way of bodying, of physical moving, that ineluctably is attuned to some mood or other granted by quivering, then even the art-form music cannot be confined to singing and playing instruments, but must include at least dance as well. The way the body moves in dance, an artful way of Dasein's bodying, is music too. The closeness of music and dance is apparent not only phenomenally, but also is indicated by language; the word we employ for an ensemble of musicians, "orchestra", comes from the Greek "ὀρχήστρα" which means originally that part of the theatre between the stage and the audience where the choir sang and danced, from ὀρχήσασθαι 'to dance' which, as Aristotle says, is a special way to move oneself (*Met.* 1034a15), a way denied to beings not in the way of human being: "Namely, many beings can move through themselves, but not in a special way such as dancing" (πολλὰ γὰρ δυνατὰ μὲν ὑφ' αὐτῶν κινεῖσθαι ἀλλ' οὐχ ὡδί, οἷον ὀρχήσασθαι. *ibid.*). Music and dancing as art-forms of human being colour the open timespace of existence with a certain mood and are themselves movements responding to quivering's moods. Quivering motivates human being with e-motions that come out as the movement of music. Listeners to music, in turn, move inwardly and outwardly to its vibes. The human psyche quivers in tune with the music; the human body dances. We enjoy music by virtue of its en-joying, up-lifting us with the vibrant vibrations of life's movements.

The truth of music lies not in its bringing a truth into the open where it stands in outline and can be understood and said, but in its being attuned with a mood granted by quivering which it brings to resonance in a special mode of bodying, which may even be simply the vibrant resting of attentive listening. Both those making music and those listening belong originally to the quivering, and only by virtue of this appropriation can they music and listen and thus *be* musical. All musicking is originally a moved listening to the quivering. All human being is an attuned moving to the quivering, through to the negative mode of an

unmusical insensitivity that cannot be moved and is thus entirely unmelodious, stiff, rigid.

Speaking too is a mode of bodying. If language as pointing comes to spoken speech in which beings are presenced and absenced, the way of language, its lilt, its mode is also attuned to quivering in some way or other. In its bodily moving modality, the way of speaking is willy-nilly attuned with a mood. A way of speaking always accompanies what is spoken, which makes all speaking musical in the broadest sense of a mode of bodying attuned to quivering in one way or the other. In particular, the art-form, poetry, its reciting, is lyrical. There is always music in poetry, and poetry is song. Reading and writing too are not without their music. *What* is said in writing is always accompanied by the music of *how* it is said. The unsaid underpins and embraces what is said; there is always an excess vibration beyond the said, since all speaking is a response to the “pealing of stillness” which cannot be entirely defined and confined in articulated language. This pealing peals in the silence between the words. Thus Beckett can write in his first, albeit posthumously published novel:

The blown roses of a phrase shall catapult the reader into the tulips of the phrase that follows. The experience of my reader shall be between the phrases, in the silence, communicated by the intervals, not the terms, of the statement, between the flowers that cannot coexist, the antithetical (nothing so simple as antithetical) seasons of words, his experience shall be the menace, the miracle, the memory, of an unspeakable trajectory. (Beckett 1993 p.138)

Beckett wants his readers to experience, in a movement of reading, the silence “between the phrases”, the unsaid, as if the words in themselves were merely the handmaidens of the silence that is to be assisted to come to resonance. It is as if Beckett knew that, for all the power of language to bring beings into definition before us, it is helpless in the face of the quivering openness whence beings arrive and through which language itself is moved in coming to language. There is a longing for this silence at work in Beckett:

So shall their voices pass away, begin and end, the syllables sound, sound and pass away, the second after the first, the third after the second, and so forth and so on in order, until the last after the rest, and silence, with a bit of luck, after the last... (ibid. p.105)

Human musicking in the broadest sense of a mode of bodying, mellifluous or not, is not a point of origin whence something else is brought forth to stand in the clearing, but rather, the bringing-to-resonance of music is already its fading, its coming to presence already also its absencing, for, as pure, resonant movement, it takes no defined and persisting stand in time, but is a movement granted by the giving of time itself. Music and dance are performing arts because they are nothing but the performing, i.e. a mode of physical, moving bodying that modulates Dasein's timespace in colouring it with a mood. Timespace's plasticity consists in its openness to being coloured by reverberant mood, or conversely, mood is the mode of time's movement, i.e. the way time reverberates through its own space and is received by those who are open to, i.e. ineluctably attuned to, the quivering. Tones and gestures have no extension in space, like the paint on a canvas does; rather, their extension is purely temporal,⁷ i.e. movement itself. Just as the paint in a painting colours the subjectile, the sound of music, or even the visual reverberation of a gesture as a mode of movement, colours temporal space temporarily ("I'm sorry for smudging the air with my song," sings Leonard Cohen) by extending as movement in time and eventually fading.

We are musical beings insofar as the world opens up to us by way of resonating with a unified but manifold quivering. If, as Heidegger says, the "peeling of stillness" is the essencing of language which comes to spoken language, then, as the quivering, it is also the essencing of music which, as accompaniment, takes a parallel way to language in coming to

⁷ "Wenden wir dann zur Gegenprobe unsere Aufmerksamkeit auf den Ton, so zeigt sich, daß er auf zwei Weisen im Raum ist: einerseits geht er von einem Ort aus, andererseits durchschwingt und durchmißt er den Raum. Aber der Ton als solcher ist nicht im Raum ausgebreitet [wie die Farbe als Farbe], sondern nur in der Zeit." (M. Heidegger *Vier Seminare* Klostermann, Frankfurt/M. 1977 p.44) "As a contrasting test, let us turn our attention to tones. It is apparent that a tone is in space in two ways: on the one hand, it emanates from a place, on the other, it resonates through and passes through space. However, the tone as such is not extended in space [like colour as colour], but only in time."

the movement of audible music and visible dance. This parallelism means that there is always an excess resonance of pealing which does not come to spoken language that is somehow understood, but which comes to reverberate ungraspably and moodfully in music. The truth of being is a vibrant clearing not only for beings to show themselves as beings but also for the vibrations of a situation, a 'state of affairs', perhaps even of an age, to reverberate in a definite, moved attunement, no matter how in-definable and indeterminate it may be. Because of the twofold in the open clearing underlying the parallelism of language and music, there is always a remainder that does not come to language, and thus is not grasped by understanding. This remainder that cannot be gathered resonates nevertheless, and music is attuned with these resonances. Our sensitivity to the quivering makes us moved-moving musical beings physically bodying in timespace.

A determination of human being as musical here is not intended to replace the traditional metaphysical definition of human being as τὸ ζῶον λόγον ἔχον. Rather, it points in the direction of the twofold dimensions within the openness of being. In 'having the logos', we humans are able to speak and disclose beings in their being. The moods which affect and move human being e-motionally are not a mode of disclosure which can come simply to speech; they cannot be decrypted in the defining work of language. This inability of mood to come to language, its non-amenability to being said, should not, however, be regarded as a defect or drawback compared with the disclosing, decrypting power of language. Rather, the opening-up achieved by mood takes place in that other dimension within the twofold of the clearing, and this dimension is the open, resonating accompaniment to all understanding and saying through which human being is moved and also moves itself in response. The clearing is two-dimensional or cloven, enabling the *wesende* (essencing) of both language and music to pass through to human being, each in its own way. With equal justification one could say that understanding itself cannot as such come to music (song, dance, gestures) but must rely on the accompanying attunement resonating with quivering to be moved and so to attain presence in this musical dimension as the passing movement of musicking in time. When

saying (the *wesende* of language), accompanied by quivering (the *wesende* of music), comes to language, it is lyrical poetry and song. Hence it can be said that, despite the thoughtful way to music being parallel to the way to language, and thus, in a certain sense, derivative of Heidegger's line of thinking on the way to language, the parallel way of thinking on music nevertheless justifies itself by showing the twofold dimensionality of appropriation itself. It is therefore by no means superfluous, but complements Heidegger's mature thinking on language. The plagiarism is thus redeemed.

The musical dimension of human being as its moved self-moving in time (including the vibrant rest of attentive listening) was not overlooked entirely in the beginnings of metaphysics, even as it was providing the fundamental essential definition of human being with its far-reaching consequences throughout occidental history. The *λόγος* was given hegemony over the human soul (*ψυχή*). This does not prevent Plato, however, from seeing the phenomena and recognizing that the ability to dance is a god-given gift which is part of the human essence and a precondition for any form of education.⁸ This god-given gift too, and not just the *λόγος*, the ability to speak, sets us apart from the animals as the quote above from Aristotle has already indicated. Our sense of order in movements allows us to partake of many moods, including joy in particular, through song and dance:

Φησὶν [ὁ λόγος] δὲ τὸ νέον ἅπαν ὡς ἔπος εἰπεῖν τοῖς τε σώμασι καὶ ταῖς φωναῖς ἡσυχίαν ἄγειν οὐ δύνασθαι, κινεῖσθαι δὲ ἀεὶ ζητεῖν καὶ φθέγγεσθαι, τὰ μὲν ἀλλόμενα καὶ σκιρτῶντα, οἷον ὀρχούμενα μεθ' ἡδονῆς καὶ προσπαίζοντα, τὰ δὲ φθεγγόμενα πάσας φωνάς. Τὰ μὲν οὖν ἄλλα ζῶα οὐκ ἔκειν αἰσθησιν τῶν ἐν ταῖς κινήσεσιν τάξεων οὐδὲ ἀταξιῶν, οἷς δὴ ῥυθμὸς ὄνομα καὶ ἄρμονία· ἡμῖν δὲ οὖς εἶπομεν τοὺς θεοὺς συγχορευτὰς δεδόσθαι, τούτους εἶναι καὶ τοὺς δεδωκότας τὴν ἔνρυθμόν τε καὶ ἐναρμόνιον αἰσθησιν μεθ' ἡδονῆς, ἤδη [ἢ δὴ] κινεῖν τε ἡμᾶς καὶ χορηγεῖν ἡμῶν τούτους, ᾠδαῖς τε καὶ ὀρχήσεσιν ἀλλήλοις

⁸ Οὐκοῦν ὁ μὲν ἀπαίδευτος ἀχορευτὸς ἡμῖν ἔσται, τὸν δὲ πεπαιδευμένον ἱκανῶς κεχορευτότα θετέον; (Thus, won't anybody who is uneducated be regarded as someone who cannot dance, whereas someone who has been educated must be regarded as someone who can dance sufficiently well? Platon *Leg.* II 654a)

συνείροντας, χορούς τε ὠνομακέναι παρὰ τὸ τῆς χαρᾶς ἔμφυτον ὄνομα.
Leg. II 644d - 654a

This wordsays that all young beings, as they say, are unable to keep still (behave quietly) with their bodies and voices, but always seek to move and cry out, on the one hand, by hopping and jumping as if they were dancing and playing with pleasure, and on the other, by calling out all kinds of sounds. The other animals do not have a sense for the order or disorder in movements, for that which is called rhythm and harmony. To us, however, the gods who, as we said, have been given to us to dance with, have also given the sense of pleasure in rhythm and harmony through which they put us into motion and cause us to dance, by lining us up together in songs and round dances, and they called these ‘choirs’ according to their natural name which is related to *chará* (= joy).

Not only can we talk and think, but we can also dance and sing, and this observation would seem to indicate that human being in its finitely temporal, moving bodiliness implies a broadening of scope regarding what constitutes human being in an alternative thinking.

II. Thinking on Western music

II.1 Subjectivist aesthetics (Adorno)

An obvious issue arises from the preceding path of thinking and its unusual, if not downright strange, determination of the essencing of music as the making-way of the quivering of appropriation to the resonant musicking of human beings, namely: What does it have to do with aesthetic theories of music that have held sway for two hundred years and continue to do so today? Aesthetics today remains the term employed ubiquitously and thoughtlessly for all discourse on art. The word ‘aesthetics’ was not even employed in the preceding part. Rather, there was much said of moods and attunement as a way in which the world opens up for human being.

In a recent book on music aesthetics (Cross et al. 2004), there is not a single mention of ‘attunement’, and the word ‘mood’ is employed once in two hundred pages. This can be taken as an indication that the preceding path of thinking is way off the trajectory of recent aesthetic discussions of music. The thought that music is a “language of the emotions” or that the composer “expresses emotions” and communicates them to listeners, by contrast, is well represented in the book. This is presumably because aesthetics is used to dealing with subjects who express and communicate emotions through art works — even, and especially, when repudiating “putrid emotionality” (Eduard Hanslick, as cited by Wellmer p. 72), an exclamation which is itself presumably an antithetical reaction to the Romantic yearning “to think with the heart” (Hofmannsthal). The authors are at ease with, and employ the vocabulary of the metaphysics of subjectivity/objectivity, thus remaining at home in the established paradigm of modernity. The notion that a quivering from ‘out there’ could make its way to human musicking is antithetical to any aesthetic theory for which the human subject remains unquestioned and unquestionable as the underlying instance for art works.

II.1.1 Meaningful musical language?

Albrecht Wellmer opens his article entitled ‘On Language and Music’ with the question, “Is music speech-like (*sprachähnlich*)?” (p. 71) with

the intention of answering it in the affirmative. It turns out, of course, that this question is not asking for a way to music that parallels the way to language and that for the simple reason that both language and music from the outset are conceived unquestionably as human products. What worries Wellmer is whether music has a relation to the outside world consisting of “conceptual and emotional threads” (p. 72, citing Nietzsche), or whether it could free itself “from the yoke of extra-musical purposes and intentions” and instead concern itself only with its internal rules and questions, as purportedly is the case with “serial music at the latest” (ibid.). Wellmer wishes to refute such an ‘internally generated’, ‘formalist’ or ‘absolute’ conception of music. No matter on which side of Wellmer’s worry one finds oneself, music is regarded as an art work produced by composer-producers.

Wellmer is concerned with the question, “does purely instrumental music have a world-relation, a connection to the extra-musical domain” (p. 78), whereby he assumes that “the world-relation of the arts refers back to language and the dimensions of linguality” (p. 82). Language is therefore for Wellmer the connection to the world, and therefore there is no problem regarding whether literature or film have a world-relation. The thesis that music possesses a linguality thus insists the world does not take a parallel way to human being, but that music is a human product that must maintain a connection, and pass through language to make sense, even when music, like other art forms, remains a “riddle”, as Wellmer claims, citing Adorno: “All works of art [...] are riddles” (p. 110). And, he asserts, it has an “aura” that, “in meaningful music”, “‘exceeds’ the purely material sound-structure” (p. 119). How could this excess be produced by an artist subject? Why should this excess be meaningful and linguistic in nature? If an art work’s aura is not something ‘objective’, how is it to be located in its excessiveness within today’s hegemonic paradigm of subjectivist metaphysics?

This brings in Adorno as a major point of reference for music aesthetics during the past half-century. The thesis initially cited by Wellmer, “Music is like language” (*Musik ist sprachähnlich*), comes from Adorno (1978), who opens his ‘Fragment on Music and Language’ with this gambit which is in itself an admission of failure. As evidence

for the similarity, Adorno cites that the “traditional musical theory of forms knows of movement/sentence, semi-movement/semi-sentence, period, punctuation; question, answer, parenthesis; auxiliary movements/clauses are to be found everywhere, and in all this, the gesture of music is borrowed from the voice, which speaks.”⁹ An interpretation of language in these terms is already metaphysical, going all the way back to Plato and Aristotle and the Alexandrine grammarians, so Adorno is here naively positing a metaphysical thesis about both music and language that diverges wholly from the way to language and the parallel way to music by ignoring and overlooking that speaking with the voice (*Stimme*) is always also attuned (*gestimmt*), so that any logic of saying is always *accompanied* by an ‘illogical’ attuning of mood.

The positing of music’s similarity to language ties music to *λόγος* and everything that flows from it in the history of Western thinking by way of rationality and ratio. Hence, for Adorno, music, too, has unquestionably an “immanent logic”¹⁰ that must be respected and obeyed if it is not to become a “mere game”¹¹. Tied to logic in this way, music is destined to participate in the access to the world through the *λόγος* even though the attempt to spell out the musical meaning, according to Adorno, must finally fail. The way music itself is conceived thus remains within the penumbra of logic, despite all rebellion in the same breath against it. Hence music does not come into its own element in Adorno’s thinking.

The epitome of the language-likeness of music is provided by tonal music, whose “vocabulary”, “chords” and “habituated connections”¹² sediment as “second nature” whose “coagulated formulae” threaten to

⁹ “traditionelle musikalische Formenlehre weiß von Satz, Halbsatz, Periode, Interpunktion; Frage, Antwort, Parenthese; Nebensätze finden sich überall, Stimmen heben und senken sich, und in all dem ist der Gestus von Musik der Stimme entlehnt, die redet.” Adorno 1978 S. 251.

¹⁰ “immanente Logik” *ibid.* S. 255.

¹¹ “bloßes Spiel” *ibid.*

¹² “Vokabeln”, “Akkorde”, “eingeschliffene Verbindungen” *ibid.*

become “mechanical”, against which the “new music”¹³ rebelled, without, however losing its similarity to language. Adorno thus sticks to his thesis also for the new music: there is a logic of both tonality and the new, atonal music, without which neither can *be* music, but rather become arbitrary. At the same time, Adorno insists, this musical logic must not degenerate into mere lifeless form.

The excess of musical language, according to Adorno, consists not in its down-to-earth, but ungraspable moodedness, but in its transcendent “theological aspect”, for music’s “idea” is “the Gestalt of the divine name”¹⁴ that humans vainly attempt to spell out in music. Human musical intentions to “say the Absolute” mediatedly thus fail, Adorno asserts, just as the attempts of “language that means to say something”, to say the Absolute, immediately fail. “Music hits it [the Absolute] directly, but at the same moment it darkens itself”.¹⁵ Adorno’s conception of the essence of music is hence not only subjectivist, but also transcendently theological in a Jewish way. Nevertheless, it is only this excess of the vain attempt to say musically the name of God that makes music more than a mere succession of formed sounds.

Adorno therefore rejects both expressive and formal aesthetics, because the former exhausts itself in the expression of “individual intentions” of the subject, thus missing the “intentionless substance of the whole” (intentionlosen Gehalt des Ganzen, S. 255), whereas “the concept ‘form’ explains nothing of what is hidden, but merely shoves the question back to what is represented in the resounding, moved interconnection, which is more than only form” (der Begriff ‘Form’ erklärt nichts vom Verborgenen, sondern schiebt bloß die Frage nach dem zurück, was sich im tönend bewegten Zusammenhang darstellt, was mehr ist als nur Form, *ibid.*). Formal aesthetics, Adorno claims, turns

¹³ “zweite Natur”, “coagulated formulae”, “mechanical”, “neue Musik” *ibid.* S. 252.

¹⁴ “theologischer Aspekt”, “Idee”, “die Gestalt des göttlichen Namens” *ibid.*

¹⁵ “das Absolute [...] sagen”, “meinende Sprache”, “Musik trifft es unmittelbar, aber im gleichen Augenblick verdunkelt es sich”, *ibid.* S. 254.

music into a “mere game”¹⁶ in all its arbitrariness and contingency, thus failing to “point beyond itself. The quintessence of such transcendence of the musical detail is the ‘content’: what happens in music”. Instead of staying close to the mood that comes to resonate in music and as music, exceeding, or rather, parallel to all understanding, Adorno is off after a transcendent, divine content, a “most insistent ‘It is so’; [...] confirmation of something that is nevertheless not said expressly”¹⁷.

The movement of music, for Adorno, is one from the inside to the outside, from the inwardness of subjectivity to the transcendent divine that eludes expression. Against the formal conception of music, he points out that there is no music “in which expressive elements did not occur”¹⁸. Let us take a telling illustration for what has been said. Adorno’s disciple, Wellmer, relates in the above-cited essay an anecdote from his piano-playing days when he was struggling to master by sheer technique a piece by Beethoven. His piano teacher exclaimed in exasperation, “Now listen, this is the French Revolution!” (Wellmer op. cit. p. 107). This plea is understood in subjectivist metaphysics as a cry to express emotion over against the demands of mere formal technique, as an appeal to the heart to compensate for unfeeling, technical, formal reason, and express a meaning.

Viewing the phenomena themselves, however, it easily can be seen that this is a misinterpretation. Why? Because the French Revolution is not an emotion coming from inside a subject that clamours for expression, but a momentous history-making, quivering happening out there in the world that emanates its own mood which comes to resonate grandly in music with Beethoven. Hence the teacher says, “Listen!” —

¹⁶ “intentionlosen Gehalt des Ganzen”, “der Begriff ‘Form’ erklärt nichts vom Verborgenen, sondern schiebt bloß die Frage nach dem zurück, was sich im tönend bewegten Zusammenhang darstellt, was mehr ist als nur Form”, “bloßes Spiel”, *ibid.* S. 255.

¹⁷ “weist [...] über sich hinaus. Der Inbegriff solcher Transzendenz des musikalisch Einzelnen ist der ‘Inhalt’: was in Musik geschieht” *ibid.* S. 256, “eine der eindringlichsten ‘Das ist so’; [...] Bestätigung eines dennoch nicht ausdrücklich Gesagten” *ibid.* S. 253.

¹⁸ “in der nicht expressive Elemente vorkämen” *ibid.* S. 255.

to a vibe coming from out there. The mood of freedom is not theological and transcendent, and its coming-to-music is not the vain attempt to speak the divine name. Rather, the historic mood of freedom in an age is *itself*, coming to music excessively, that is, in an atmospheric excess that exceeds, on its parallel way, both understanding and language. One may call freedom divine, but only at the risk of misunderstanding.

II.1.2 Musical technique

Adorno's view of music remains subjectivist also when he comes to consider the role of technique and technology in the New Music. He begins his essay, 'Music and Technique/Technology',¹⁹ with a subjectivist recapitulation of the Greek understanding of τέχνη: "If this [art] is the outward representation of something inward, a contextualized sense of the phenomenon, the concept of technique/technology comprises everything related to the realization of that inward something." In the case of music, this realization of something inward is that "of the spiritual-intellectual substance-content in the notated music as well as the [realization] through sensuously produced sounds: thus production and reproduction. The totality of all musical means is musical technique: the organization of the thing itself and its translation into phenomenal manifestation".²⁰ Adorno's interpretation of τέχνη is expressly and emphatically subjectivist, because he insists that the ultimate "subject", the "human being" is the producer of that "contextualized sense/meaning" (Sinnzusammenhang). The "thing

¹⁹ Theodor W. Adorno 'Musik und Technik' 1978. The slippery, amphibious ambiguity of the German word 'Technik' as employed in the essay demands a twofold translation as either/both 'technique' and 'technology'. Cf. Eldred 2006/2010.

²⁰ "Ist diese [Kunst] die auswendige Darstellung eines Inwendigen, ein Sinnzusammenhang der Erscheinung, so fällt unter den Begriff der Technik alles, was sich auf die Realisierung jenes Inwendigen bezieht," "des geistigen Gehalts in den Noten wie die [Realisierung] durch sinnlich hervorgebrachte Klänge: Produktion also und Reproduktion. Die Totalität aller musikalischen Mittel ist musikalische Technik: die Organisation der Sache selbst und deren Übersetzung in Erscheinendes" *ibid.* S. 229.

itself” that is “translated into phenomenal manifestation” is asserted to be that “inward something”, a “meaning”.

Musical technique, Adorno says, comprises all those means at the composer’s disposal, especially the “moment of ability”, to bring out that “connected sense”,²¹ ‘Sinnzusammenhang’ being a difficult word to render adequately in English that is crucial to what Adorno is trying to say. A sense or meaning is something comprehensible, understandable, and this comprehensible connection is said to constitute the core of a musical art work. This meaningful core is “geistig”, i.e. ambivalently intellectual and spiritual, since the German word ‘Geist’ encompasses both ‘spirit’ and ‘mind’. The substantial core of meaning, of course, for Adorno, is dialectically “identical and non-identical” (ibid.) with technique. Technique and the inward sense-connection are said to affect each other, but technique remains subordinated to the task of getting the inward meaning out.

Adorno complains that, with the progressive “technicization of the art work”, “attempts vis-à-vis [musical technique] to reserve a special area of responsibility exempted from technicization for something represented, spirited mind, sense/meaning are hit by impotence”. From Berlioz, with whom “compositional technique” came into its own, through to serial music, Adorno ascertains a progressive loss of musical sense-content in favour of technique which reaches its acme with serial music’s total technical control over the material, whereby “necessity — bearing itself as abstractly mathematical and foisting itself without subjective mediation on the musical phenomenon from the outside — has an affinity to absolute contingency”. Hence he expresses his scepticism against “the most recent ‘aleatoric’ experiments”.²² The total

²¹ “Moment des Könnens”, “Sinnzusammenhang” ibid.

²² “Technifizierung des Kunstwerks” ibid. S. 231, “Versuche, demgegenüber [gegenüber der musikalischen Technik] Dargestelltes, Geist, Sinn einem von der Technifizierung ausgenommenen Sonderressort vorzubehalten, sind mit Ohnmacht geschlagen” S. 233, “Kompositionstechnik” S. 232, “Die dem musikalischen Phänomen von außen, ohne subjektive Vermittlung oktroyierte, abstrakt mathematisch sich gebärdende Notwendigkeit hat

control of serial music thus flips into total arbitrariness for Adorno as meaningful, subjective, spirited intellectual content dwindles and disappears.

According to Adorno, serial music was guided by the “idea of complete predeterminacy” which he says is an “illusion because neither absolute non-ambiguity can be constructed, nor can such a construction coincide with manifest music”. The crucial point, however, is that “predeterminacy would have to be brought into freedom”, and this freedom is the subjective, contextualized meaning, “an idea of the whole”. Total predeterminacy would “burst music out of its own element, time” reducing it to “mere existence” in which “its becoming degenerated into illusion” where the “generation of the new” could no longer happen. A recourse to the concept of indeterminacy adopted from modern physics as a “concession” to limits of determinacy, Adorno asserts, is not enough because indeterminacy “names that element where constructive determinacy itself first finds its substrate”.²³

Against this assertion, however, it has to be asked whether music has its subjective, inner, contextualized meaning that serves as its free-spirited intellectual substance and substrate, or whether the content emerges from the composer’s receptivity for what comes atmospherically from the outside to his or her spirited-intellectual ears. This would mean that the composer is no longer the underlying subject whose creative task it is to represent something inward on the outside, but the attuned recipient of an uncomprehended, moodful quivering out there that can come to resonate in music by passing through the

Affinität zum absoluten Zufall” *ibid.* S. 237, “die jüngsten ‘aleatorischen’ Experimente” *ibid.*

²³ “Idee der vollkommenen Prädeterminiertheit” *ibid.* S. 246, “Illusion ist, — weil weder in absoluter Eindeutigkeit sich konstruieren läßt, noch gar eine solche Konstruktion je zusammenfielen mit der erscheinenden Musik” *ibid.*, “Prädeterminiertheit wäre in die Freiheit einzubringen” *ibid.* S. 247, “eine Idee des Ganzen” *ibid.*, “sprengte Musik aus ihrem eigenen Element, der Zeit, heraus”, “bloßes Dasein”, “ihr Werden in der Zeit verkäme zur Illusion”, “Erzeugung des Neuen”, “Konzession”, “benennt, woran die konstruktive Bestimmbarkeit selber erst ihr Substrat findet” *ibid.*

composer who sets the artistic-musical limits that allow the mood to resonate in music. Such a music is indeterminate insofar as it cannot be defined within the limits of the *λόγος*, and it unfolds as a movement in time, but it is not arbitrary, relying as it does both on the composer's genial receptiveness and technical ingenuity, a moment of freedom, with which he or she is able to capture the mood of a time, and also on the sensitivity with which the musicians tune in to the composer's prescript.

II.2 Phenomenology of Western harmonic-tonal music (Georgiades)

Thrasybulos Georgiades' book *Nennen und Erklängen: Die Zeit als Logos* (1985) cannot be regarded as a monograph on music aesthetics, firstly for the simple reason that his considerations on music go back to the Greeks, the founders of the Western theory of harmony that has formed the basis for Western music. The phenomenon of musical harmony, in turn, is tied to arithmetic relations, as investigated from the Pythagoreans onward. Number, however, is not a phenomenon of the senses, an αἰσθητόν, but of the intellect, of νοῦς. Moreover, music is a temporal rather than a spatial phenomenon, resonating in time. Georgiades therefore focuses on the Aristotelean phenomenology of time itself in connection with counting and number, which is hardly an aesthetic approach that proceeds from what the subject senses through its sensibilities. The subtitle of Georgiades' book, "Time as Logos", indicates further that the phenomenon of music is being approached primarily through the triad time - logos - number.

Another author writing around the same time as Georgiades is Georg Picht, who postulates in his 1969 article the central thesis that music is the "representation of time" (*Darstellung der Zeit*, Picht 1969 p. 409). The defence of this thesis, however, is weak, since Picht treats only superficially the philosophical analyses of time in Plato, Aristotle and Kant, and fails even to draw out the antinomy between time conceived as continuous and time conceived as countably discrete. Leaving to one side the objection that, in postulating the essence of music as a representation, Picht's thesis already leads off the track for thinking through music *as* music, even with regard to time he writes as if it could be regarded unproblematically as a continuum. Georgiades is therefore a much more promising source for a disputation over the essence of music as a representation of time. Chapter I of his book, on Time, proceeds from an engagement with Aristotle's phenomenology of time, movement and number in the *Physics*. In the sequel I will follow Georgiades himself only loosely because his line of thinking is sometimes confused

and it is better to work out a clearer line so that his genuine insights come more to the fore.

The decisive feature of Aristotle on time is that it is countable, and therefore discrete. Time is the number counted off movement, which itself is continuous, i.e. movement holds itself together tightly (συνεχέως) so that there are no breaks and leaps. Each number, on the other hand, is discretely for itself, separated off from the other numbers (Eldred 2009/2011 § 2.1). Georgiades cites Aristotle's famous definition of time as "the number of movement according to before and after" (Georgiades p. 29), which implies a *counting movement* in which there is a movement, at the very least, from one to its successor, two, with 2 coming after 1. Time, however, is never finally, perfectly counted (ἠριθμημένον p. 33, *Phys.* Δ 14;223a25); it goes on endlessly being counted (ἀριθμούμενον). As the movement continues, the discrete counting continues.

Movement, however, can be simply the inner movement of the soul (κίνησις δέ τις ἐν τῇ ψυχῇ ἐνῆ *Phys.* Δ 11;219a5) itself, which is a continuous, pure, uneventful whiling (Währen, p. 49). This whiling is marked in the mind by the ever-recurring nows that are counted off discretely as they arrive. Hence, Aristotle notes, "if nothing other of its nature can count except the psyche, i.e. the psyche's mind, it is impossible that time could be if the psyche did not exist" (εἰ δὲ μηδὲν ἄλλο πέφυκεν ἀριθμεῖν ἢ ψυχὴ καὶ ψυχῆς νοῦς, ἀδύνατον εἶναι χρόνον ψυχῆς μὴ οὔσης 223a25). Time *is* only in the belonging-together of being (εἶναι) and mindful taking-in (νοεῖν), of movement (κίνησις) and counting (ἀριθμεῖν). Georgiades puts this by saying that time is only "real" as a counting (p. 33), which is misleading insofar as in counting no *res* (real thing) is involved. The mind gets a defining grip on continuous movement/change by discrete counting of the endless recurrence of the same (τὸ αὐτόν, νῦν, now) as difference (ἕτερον, a later now). The ever-recurring, counted now is, in the first place, the recurring of the time of day when the sun or the fixed stars return to the same position in the sky. This makes the counting uniform, and thus time is the even, uniform, counted procession of days. The day as unit of

counted time can be subdivided into smaller and smaller units, and counted off perceptibly quicker movements or changes. In principle, any movement, whether regular or not, can be taken as the unit for counting time. A regular, periodic, recurring movement, however, is “most familiar” (γνωριμώτατος 223b20) for an even counting of time for which the now-instants arrive with a steady drum beat.

As Aristotle analyzes, movement itself is characterized by a double (διχῶς *Phys.* Γ 1;201a3) presence of what is present now and the lack (στέρησις) of where the movement has not yet arrived, which is thus a present absence. Since time itself is a counting *movement*, it is always *under way* toward the next, still absent now-instant that is to arrive and be counted. The undifferentiated whiling movement is thus punctuated by the mind’s discrete, ongoing, forever unfinished (ἀτελής) counting movement of Aristotelean time itself as the instants arrive one after the other. The mind has to distinguish, at the very least, in its counting movement, the earlier now from the later now, for time to *be*. The mind thus *retains* earlier nows and is *prospectively* under way toward later nows, but Aristotle does not treat the absently present dimensions of past and future in which these retained or projected nows are embedded as temporal dimensions in their own right, defining time instead as discrete counting for which only the present now properly *is*.

II.2.1 Rhythm in tonal music

If Western music — according to Picht’s thesis that is tantamount to an obfuscation of the making way of music as music to music (cf. Part I) — is to be conceived (metaphysically) as a “representation of time” — a thesis expounded by Georgiades’ book — then it will itself be a counting movement in which the before and after have a relation to each other, and, since music is an art form, this counting movement will be perceptible to the senses, above all, the sense of hearing. Thus music will be a sensuous presencing of time itself as a sensuously audible counting movement. *Western music is counting time*. Such a conception of music is wedded *essentially* to the Aristotelean conception of time as an endless counting movement, an ontological casting of time that has not been broken with even in advanced modern physics (cf. Eldred

2009/2011 § 2.9). The counting movement is marked for the ear by the relation of whiling *tones* to one another as they are produced and heard in succession. A tone itself is a pure sound that is pure in the sense that i) it has a pitch and ii) it is 'for itself', 'self-contained' or separated off from the referential aspect of noises in the world as always being the noise *of* something in the environment and thus as indicative of something which the noise is not. When I hear a noise, it is the noise of a car, a person, a fly, etc., whereas a tone is simply for itself, self-contained, as of a certain high or low pitch, and *abstracted* from the world of things. Hence a musical tone is a *note*.

Not even the timbre of the particular musical instrument generating the tone is initially included in this conception of pure, abstract tone which is amenable to being brought into (harmonic; see below) relation with pure number, which is likewise abstracted from qualities. If music is a sensuous presencing of time, it can be such only as a counting movement of tones that thereby have a numerical, counted relation to one another in the sequence of ongoing tones. Musical tones must be placed in ongoing, counted time according to strict, ordinal numbers, and also have a numerically measured duration. Even the sustained whiling of a pure tone is, and must be, counted musically, whereas a sustained staccato of a tone of unvarying pitch already contains its own implicit, audible counting. The counting underlying the musical movement of tones is reflected in the *bars* of notated Western music, along with their regular subdivisions into, say, quarter, eighth or sixteenth notes, that constitute the units for counting such movement in a precise, regular way. The *duration* of a note is counted by numerical divisions of a bar. Such counting of both tones and silent pauses is the rhythmic basis of Western tonal music, which always maintains its numerically precise relations, no matter how complicated the rhythm becomes, even when the rhythms of different instruments are complexly superposed. Even rhythmic syncopation with its off-beats, and grace notes are still governed by the basic rhythm as its precisely posited, controlled deviations.

II.2.2 Harmony in tonal music

The precise, countable rhythm is only one aspect of the arithmetical nature of Western tonal music. The other is its *harmonic* structure, that goes back to the Pythagoreans, who first investigated harmonic ratios. If music is to be composed of tones posited within counted time, these tones themselves have a relation to one another. They are πρὸς τι. This observation again brings us back to Aristotle, who provides an overview of the category of relation in the fifteenth chapter of Book Delta of his *Metaphysics*. This concise chapter includes discussion of the relations, i.e. ratios, of numbers (ἀριθμοί) to one another, which can be either definite (ὠρισμένος 1020b34) or indefinite (ἀόριστον 1021a4), and that in two ways: either as a multiple (πολλαπλάσιον 1021a3) or in exceeding another number by one part (ἐπιμόριον 1021a2) as its successor. A definite multiple is e.g. threefold, whereas an indefinite multiple is n-fold, i.e. always a multiple in relation to the starting-point (ἀρχή) of counting, which is one (πολλαπλάσιον πρὸς τὸ ἓν 1021a3). As the principle and measure for counting, one itself is not regarded as a number, the first number in the movement of counting itself, starting from the starting-point, being two.

An example of a definite succession is the relation of 3 to 2, 3 being the ἐπιμόριον of 2, which is thus the ὑπεπιμόριον (1021a2). The indefinite relation of succeeding (ἐπιμόριον πρὸς τὸ ὑπεπιμόριον 1021a2) is the ratio of $n+1$ to n . Simple counting 1, 2, 3, 4, etc. results in the succession of counting numbers, whereas the rational counting of $2/1$, $3/2$, $4/3$, $5/4$, etc. results in the countable succession of *successor ratios*. Both sequences, however, are very simple, countable sequences. The multiples of one could be regarded as the basis of the *rhythm* of tonal music as the tones arrive in counted time, whereas the successor ratio $(n+1)/n$ is the key to Western *harmony* that regulates how the successive tones' pitches relate to each other harmonically. This is the approach that Georgiades pursues, above all in two sections of his Chapter IIa. on Tone, viz. "Harmonia" (pp. 58-64) and "Zum abendländischen Tonsystem" (On the Western tonal system pp. 77-80).

If Western music consists of pitched tones whiling and resounding in counted time, then the tones themselves are sensuous, aural markers marking the progress of counted time not just by being repeated at regular counted intervals that result in a rhythm but also by marking the *difference* between earlier and later. Tones as purified and abstracted from noise have a pitch, and hence the difference in tones in the course of counted musical time is a *difference in pitch*. If music is to be a sensuous presencing of counted time, which is itself kind of movement, this movement can only become perceptible if it is marked also by difference which must be the abstracted difference of pure pitch. The tones composing the music present differences in pitch. Hence the later tone heard has a relation to the earlier one, and a tone succeeding the previous one has a difference in pitch that bears a numerical relation to its predecessor that, in order to be true to music as a presencing of counted time, must itself be captured by a *counted* arithmetic ratio which, most primitively, is the successor ratio resulting from forming the ratio between the successor in the process of counting to the predecessor number, i.e. either $(n+1)/n$ itself, or some neat arithmetical variation thereof. The harmonic ratios are therefore expressed in the simple countable sequence $2/1, 3/2, 4/3, 5/4, 6/5, 7/6, \dots$, their inversions and certain simple doublings (p. 78). If the pitch ratio $(n+1)/n$ is to remain sensuously audible, of course, n must not become too large, as we shall see in more detail below.

It may be noted that, since for Greek arithmetic, one is the principle for counting and two is the first number, the first successor ratio can only be $2/1$, and not $1/0$, which presumably would correspond to the difference of an audible tone succeeding silence. This would be indeed an audible difference in the ongoing counting of time, and thus mark a difference, but it would be, at the same time, indeterminate, just as the ratio $1/0$ is. In other words, silence itself has no place in the system of Western harmony as a sensibly audible presencing of countable time, and must be experienced simply as the lack ($\sigma\tau\acute{\epsilon}\rho\eta\sigma\iota\varsigma$) or suspended (suspenseful) absence of tone, i.e. a pause.

The first audible difference in succeeding tones arises from the successor ratio of 2 to 1 which, at the same time, is a simple multiple of

the first tone, or tonic, 1. The tonal system is relational (πρός τι) and not absolute or for itself (καθ' αὐτό), so that the tonic does not have an absolute pitch but, once chosen as harmonic key, generates the harmonic relations of all the other tones to it, just as the one (ἓν) does in counting. The first tonal successor is the octave which is simultaneously a doubling, i.e. simply the audibly same tone, but an octave higher. The octave is produced tonally by dividing a string in the ratio 2 to 1. This is the first harmonic tonal difference, which is also an arithmetic difference expressed as the simplest of arithmetic ratios. Two tones an octave apart belong to each other harmonically; they 'make sense' and are 'logical' by virtue of having a logical-arithmetic relation between. The next successor ratio in the countable sequence is 3/2, which gives the quint or dominant relative to the tonic. The quint is dominant in the harmonic belonging-together of the tones simply by virtue of being the first successor ratio after the octave. After 3/2 comes 4/3, which gives the fourth, quart or subdominant. Tonic, octave, dominant, subdominant, major third and minor third belong to each other harmonically just as the ratios 1/1, 2/1, 3/2, 4/3, 5/4, 6/5 succeed one another in a counting process.

The harmony of tones hence corresponds to a succession of arithmetic ratios which in turn corresponds to time itself cast as the steady counting of now-instants arriving in presence. In this way, time itself is given a logical-arithmetic structure, which is also audible in harmonic music. Georgiades asserts (p. 64) that the ratios investigated by the ancient Greek mathematicians, the Pythagoreans, resulted from their sensuous, aesthetic experience of the phenomena of tonal relations, but there is no need to assert any causal order here, but only a correspondence between audible and arithmetic ratios. Both are λόγοι in the sense of ratios, and that is not causally explicable, but is a sending from beyng, an historical destiny.

Georgiades notes the bifurcation of the meaning of λόγος into arithmetic ratio (harmony) and word (p. 63), from which also his bifurcation of chapters into IIa Tone and III Naming (Nennen) (which, in the first place, is the naming of 'this here', or Diesda, the title of Chap. IIb) as well as the bifurcated title of his book, Naming and

Sounding (Nennen und Erklingen) are derived. There is a logic to harmonic relations, a *λόγος ἀριθμῶν*; they are rational in an arithmetic sense. The two numbers set into (harmonic) relation to one another are called ὅροι, or limits. The *λόγος* as rational arithmetic relation delimits and, in so doing, gives rational contour to sounds as tones, holding them together rationally. What lies outside the limits of a rational, harmonic ratio sounds illogical, irrational; it makes no musical sense and is disharmonic, awful-sounding music. This becomes the Western experience and sensibility to music, which is a logical, *λόγος*-mediated, sensuous experience of a world whose sounds and noise are purified to tones and brought into logical order. Counting things in the world — 1, 2, 3, 4, 5, 6 and so on — gives rise to abstract arithmetic quantity in natural numbers, whereas listening to the ratios between tones gives rise to audible, logical, arithmetic, harmonic ratios: 1/1, 2/1, 3/2, 4/3, 5/4, 6/5 and so on.

As Georgiades expounds (p. 78), the Western harmonic system is generated wholly by successor ratios. This system remains closed only for the numbers up to 6 in the sense that all the ratios of the counting numbers 1 to 6 are either successor ratios or their inversions (e.g. the inversion of the fifth, 3/2, is 2/3=1/2x4/3, which is a fourth lowered an octave, or 5/6, the inversion of a minor third), or can be brought back to a successor ratio by dividing or multiplying by a multiple of 2, i.e. by octave displacement (e.g. 3/4=1/2x3/2 is the inversion of a fourth and also a fifth lowered an octave, or 5/2=2x5/4, i.e. a major third raised an octave, or 5/1=2x2x5/4, i.e. a major third raised two octaves, or 6/1=2x2x3/2, i.e. a quint/fifth raised two octaves). Once 7 is added to the set of generators, the closure breaks down because 7/5 cannot be generated from successor ratios according to the rules. The ancient Greek harmonic system is generated already from 1, 2 and 3 to give the Pythagorean tetraktys: 1/1, 2/1, 3/2 and 4/3=(2x2)/3, the inversion of 3/2. The Western harmonic system goes further to generate the major and minor thirds, 5/4 and 6/5, and the large and small whole tones by dividing the major third: 9/8 x 10/9=5/4. Differences are added, such as the semitone, which is the difference between the fourth and the major third: (4/3) / (5/4)=16/15. Through such refinements, the harmonic

system remains nevertheless arithmetically rational, logical in the sense that it is generated by simple operations on countable successor ratios.

Harmony is the ‘fitting together’ (Zusammenfügung p. 61) of tones according to simple arithmetic successor ratios. The fit may be under tension (παλίιντροπος ἀρμονίη ὄκωσπερ τόξου καὶ λύρης. “controversial harmony like that of the bow and lyre” Herakleitos Frag. 51), so that the tones have a tendency both to fit together and also to fly apart. Harmonic dissonances still belong to harmony insofar as they remain governed by its rules precisely as deviant exceptions which are also heard *as* such. Throughout the course of Western history, the harmonic system has undergone several modifications and extensions, none of which, however, breaks entirely with the simple arithmetic ratios of Pythagorean harmony. Arithmetic harmony is the ἀρχή (beginning and principle) that governs all Western music that comes after it. It maintains its hold despite all changes and major modifications of the harmonic system such as the tempered tuning for keyboard instruments.

The harmonic ratios govern also the formation of chords and counterpoint in Western music, since the notes of a chord, the notes of a melody and also the contrapuntal notes in polyphonic melody lines have harmonically governed relations to one another. Because harmonic logic is *relative*, there are *harmonic keys* within which the arithmetic harmonic relations are defined relative to the *tonic*, thus prescribing which notes belong together in each (major or minor) key. The orthodox distinction made between the harmony of the vertical (simultaneous) notes of a chord and the counterpoint of horizontal (consecutive) polyphonic melody lines is itself situated within the arithmetic harmony that governs which tones belong to one another, no matter whether they resound simultaneously or consecutively. In musicology there is an inherent positivist tendency to get lost in the details of historical changes in Western music and its theory rather than asking the simple question as to what the essence of Western music is that underlies all these changes.

Western music absorbs many influences from all over as the world expands through European trade and colonization, enabled by decisive technologies such as navigation, ship-building and ballistics, but these influences, say, from Africa, the Orient or the Americas, only modify

Western harmony and give it a certain flavour. Today's music, from classical through jazz, blues, and rock to commercial pop songs is still music ruled by harmony, no matter how much harmonic rules are bent. *It is rational music*. Popular music is popular because its musical sense is easily understood as based on simple harmonic ratios of tonic, fifth, fourth, major third and minor third.

II.2.3 Logically notated music

Another principal meaning of *λόγος* is 'word'. Western music is cast not only as arithmetically harmonic, but also as logically prescribed, an aspect not investigated by Georgiades. The pure tones from which Western music is composed according to rules of harmonic ratios can also be *notated*. The temporal counting of musical rhythm and the definition of tones' pitches according to harmonic ratios together enable (and necessitate) a notated music that is thus logically defined and definite also in the sense of being written down as a prescription for how the music is to be played. Such notation is only possible because music is composed of tones that themselves can be logically defined, i.e. delimited. Notated music can also be read without any music sounding. The musical mind can experience harmonic music silently by reading and also by composing notes mentally according to harmonic rules. Problems in composition can be solved as mental exercises depending on the mind's mastery of *λόγος* in the double sense of harmonic ratio and defined, notated note.

Notated music allows a division of labour between the composer and the musician, who thus becomes a logical interpreter of a composed prescript for the music to be musicked. The musical work of art, in the first place, has a written, notated form as *score*. The score lays down harmonic limits and enables the composer to *be* a composer as the creator of an art work not confined to its actual performance. A musical performance is the execution of a logical prescript that can be judged aesthetically in its own right according to how it sounds, which depends on how well and how sensitively the musicians, including the conductor, interpret the score.

The notated nature of the music, and the logical belonging-together of the notes both harmonically and in counted time, necessitates a time-keeper for the music to assure the co-ordination of the prescribed score. This time-keeper in a performance is usually the conductor, who commands the unified interpretation of the score and whose skill is judged in the first place when assessing the success or failure of a particular performance of a musical art work.

II.2.4 Words set to harmonic music

Yet a further aspect of the musical *λόγος* is where *λόγος* understood as harmonic ratio is combined with *λόγος* understood as language to give words set to music. There is then a meaning in the words that is set to music in such a way that there is a correspondence. The correspondence concerns the saying of the words as an harmonic, rhythmic singing. The text of a song brings into play lyrical metre, i.e. the rhythm of poetic saying with the voice, which must match the rhythm of the playing of the musical notes. Moreover, the sung words are ascribed definite, pitched tones of definite duration which can be notated. There is thus a threefold correspondence between the words and the music: syllables and notes, metre and counted rhythm, meaning and harmonic structure, whereby the last becomes nebulous.

It is asked whether the meaning of the song's words resonates appropriately in the music heard. This is principally a matter of a match between the mood of the text and the mood of the harmonic music, such as sad, merry, melancholy, celebratory, etc. etc. Certain conventions arise that prescribe what is a suitable setting to music of a text, perhaps the main one being that minor harmonies are sad, whereas major harmonies are cheerful. Chords built on minor thirds or major thirds are thus given a certain moodful meaning. The correspondence between the mood of a text and the mood of a piece of music encourages the misunderstanding that music itself is a language that can be employed to express feelings, just as words can be employed to express opinions and thoughts.

In so doing, the bifurcated meaning of *λόγος* as both word and arithmetic ratio is elided, and meanings are put into harmonic music, as

if the moodful quivering of music could be contained within words or, conversely, lyrical poetry did not say more moodfully than its meaningful words. This misunderstanding can only be remedied by keeping in mind that human being is open to the world in a twofold way: both through understanding and attunement. This twofold may be in correspondence or it may be at odds. Twentieth century vocal music has experimented much with vocalise for which the sung voice is disburdened of conveying a verbal meaning. The voice thus becomes like an instrument whose sound evokes certain moods that are not necessarily subjective emotions. Because the voice is the most natural of musical instruments, however, its vocalise singing is closely associated with the expression of emotion, i.e. as emanating from a human subject. Such expression of emotion is nevertheless itself always a response to a situation that is taken in by moodful understanding.

II.2.5 The dissolution of arithmetic harmony in the mathematical continuum

A major change takes place with the modern mathematical measurement of frequency, which means approximating the continuum of sound waves, something foreign to the Greek arithmetic, discrete harmonies. The musical tone is transformed from a pure sound describable by a simple arithmetic ratio to become a sound wave describable mathematically by a numerical frequency measured by the number of vibrations per second (Hertz), along with other parameters. The simple ratio of $3/2$ defining the quint *relative* to the tonic, for example, becomes the *absolute* frequency of a sound wave measured as number of oscillations per second, such as 392 Hz. for the quint G in the key of C. Modern mathematical physics alters the basic conception of harmony which, as mathematical rather than arithmetic, becomes ultimately arbitrary, thus enabling many different harmonic systems which, however, nevertheless remain describable by numbers.

Modern mathematics was developed to grasp the continuum of real numbers in order to develop laws of motion, and it achieves success in the arithmetization of geometry through mathematical calculus in the nineteenth century (Eldred 2009/2011 § 2.8). In Greek thinking, by

contrast, the continuum was the domain of geometry, not arithmetic. The dissolution of Western harmony thus begins from within Western music itself, rather than through any outside influences. The simple discreteness of harmonic ratios gives way to the more complicated, and ultimately arbitrary ratios arising from sound waves through to electronic waves generated by an oscilloscope, a transformation that may be described as progressive approximation of discrete number to the real continuum. The pure, pitched tone describable relationally through an harmonic ratio to the tonic becomes a continuous sine wave. Unbeknowns to composers, the consummation and dissolution of Western harmonic music was prepared historically by momentous shifts in mathematics related to physics' grappling with the problem of motion.

The first historical step outside Western tonal harmony was into so-called atonality, which is a misnomer insofar as atonal music is still composed entirely of tones. Rather, the relations among the tones are no longer governed by the laws of harmony. Properly speaking, therefore, atonal music (e.g. Berg) should be called anharmonic music, i.e. composed tones outside the government of harmonic ratios.

II.2.6 Making way to harmonic-tonal music

So far it should have become plainly visible that the essence of Western tonal music resides in simple arithmetic harmony based originally on successor ratios and an ordering within counted time. The essence of music is therefore nothing musical, but arithmetic, rational, logical, where *λόγος* is understood in one of its Greek senses as arithmetic ratio. Tonally harmonic music is a presencing of countable time in a rational, arithmetically governed movement of tones.

What does this mean for the making way of music to music as thought through in the first part of this study? The path of thinking led finally to the formula: *Making-way brings music (the fugue as the wesende of music) as music (quivering) to music (resounding song)*. The fugue was the entire manifold of ordinary tunes held together and adjoined in the articulated unity of that *urfugue* which resonates through and originally opens up the free dimension of attunement that comes to resonate in manifold attunements. Quivering was the temporal attuning of a mood

that attunes human being itself, thus enpropriating human being as musical to the urfugue.

Thought now with respect to the essence of specifically Western tonal-harmonic music, for which music is a representational presencing of counted time, the formula becomes: *Making-way brings music (the urfugue as the harmonically articulated join of originary tunes governed by the λόγος of arithmetic ratios in counted time) as music (the quivering whiling of time that harmoniously and disharmoniously attunes human being) to music (harmonically tonal, tuneful, attuned, rhythmic music).*

Western tonal music is therefore in tune and in step with counted time structured by the originary, harmonic urfugue sent as the metaphysical destiny of Western music. The counting of time renders music rhythmic. The pitched beats of the counting are governed by logical harmonic intervals expressed in arithmetic ratios. Western music is a counted, tonally fulfilled movement that presences time audibly as counted, harmonically structured time, and therefore re-presents it, as if time were irrevocably counted time, i.e. the ongoing, regular, simply rhythmic presencing and vanishing of now-instants that now, on making way to music, resonate harmonically in audible music and for which not only the earlier now and later now are linked through counting, but the tones resounding at these earlier and later moments are harmonically linked through certain harmonically 'lawful' arithmetic ratios.

Harmonic music is joined together according to the arithmetic ratios of the urfugue as the logical adjoining of originary, historically granted, harmonic tunes residing in the possibilities of harmonic ratio, and therefore lets the world resound moodfully in specifically harmonically tuneful and attuning ways to which we Western human beings have long since been historically attuned. We move and resonate therefore in harmony with counted time, attuned to the harmonically joined originary tunes of the urfugue that grants music through the quivering of whiling time punctuated by the urfugue's counting and the urfugue's admissible harmonies.

Our time-space reverberates harmonically with moods that make way to harmonic-tonal music which, in turn, makes rational sense to us in the

sense of the tuneful, resounding movement of harmonically related pure notes in counted time. What lies altogether outside resonance with the originary harmonic, logical urfugue is understood and felt as unharmonious, unmusical noise, as unmusic that grates on us as out of tune. Disharmony is employed in harmonic music to create an interesting tension within the harmony, bending it to avoid boredom. The underlying criterion for Western music is harmonic, arithmetic ratio, and not simply Western customs and conventions of what sounds harmonious to the ear, which is by and large a matter of habit that gains the weight of tradition to the point of becoming musical second nature. The experienced harmoniousness of music is merely an habituated reflection of the harmonic-arithmetic urfugue of Western music.

Up to the end of the nineteenth century, Western composers composed harmonically by listening to the harmonic urfugue, exploring its 'logical' possibilities, discovering its outlying limits to exploit its musical possibilities, adding refinements to how harmony is to be defined. Composers' listening in this sense is a listening of the mind to the logical-harmonic urfugue, which the mind translates into composed music that, when musicked, allows a mood of (dis)harmony to reverberate. Composers fathomed to outermost reaches of harmonic laws up to the limits of dissonant harmony in order to allow the possibilities of harmonic music to actually make way to listening human ears.

The originary fugue of Western metaphysical, harmonic music is hence not a human musicking, but the music of the harmonic urfugue itself. Human harmonic composing and musicking is only a response to having already listened to the harmonic urfugue and having been attuned by it. The originary fugue needs humankind to come to resounding, audible harmony and disharmony, and only human being — in the first place historically, Western human being — is in tune with the harmonic urfugue to which Western human being belongs. However, as already mentioned, in the modern age totally permeated by mathematical science, counted time approximates ever more closely the continuum of time's whiling, and tones come to be cast as sound waves of certain arithmetically determinate frequencies which likewise are conceived simply as positions on a continuous spectrum rather than numbers with

simple arithmetic relations to one another. Moreover, pure sounds are no longer only the tones produced by musicians playing musical instruments, but can be generated and controlled by electronic devices that operate within the continuum of sound waves rather than in the harmonically structured, rational space of tones. As harmonic tonal music in the nineteenth century fathoms more and more the furthest reaches of the harmonic *urfugue* as the essence of Western music, the limits are reached. The historical paradigm shift in the casting of time from discretely counted time to a real time continuum undermines the *urfugue* of Western harmony.

Beyond lies an other music whose *urfugue* no longer can be characterized as harmonic. An alternative *urfugue* is under way to historical human being to which certain composers listen, letting themselves be attuned by it. This alternative *urfugue* has not yet shaped up definitely. The alternatives of twelve-tone, serial and aleatoric music — as well as sound art composed not just of tones but of noises (e.g. *musique concrète*) — appear and begin to be explored, thus breaking with Western music as it has been hitherto listened to, understood and enjoyed. What is underway in Western music?

II.3 New Music is the Other Music (Cage)

If Western harmonic, tonal music has been dissolving progressively over centuries in the approximation of discrete tone to the continuity of sound and counted time itself has been cast increasingly, albeit incoherently, as a real continuum in the quest of mathematical physics to master movement of all kinds (Eldred 2009/2011 § 2.8), including even musical movement, an other essencing of music is arriving along with an other granting of time itself. This other essencing as the getting-over (*Verwindung*) of Western metaphysical, harmonic music initially can be characterized negatively as illogical, irrational, which accounts also for the enormous resistance to the arrival of another historical essencing of music. It is time to take up Picht's thesis of "a new manifestation of the essence of time which, in turn, comprises within itself everything that *is*" (*eine neue Erscheinung des Wesens der Zeit, die wiederum alles, was ist, in sich begreift*, Picht 1969 p. 416) in the attempt to spell out what this thesis could mean. New Music goes hand in hand with an historical recasting of the essence of time beyond the metaphysical essencing of discretely counted or continuously linear time.

Presumably, Western humankind is still preparing itself for this recasting in which counted clock-time or even real, linear, continuous time would fade from the scene and time as whiling would attune, thus enabling the experience that: whiling whiles. No longer would counted time, punctuated by counting, intoned by rationally related tones be at the forefront. Nor would time be a parameter for controlled continuous movement. The listening musical mind would not hear a sequence of counted, harmonically related rational tones, but rather would wander, through the power of imagination, back and forth in the whiling of time. The one musically audible now would no longer be tied logically, through rhythm and harmony, to the earlier or later musically audible now. The whiling of time would be compatible with the musicking of music itself. This thought will be further explored in the sequel.

There is a whole sequence of twentieth century composers who came up against the limits of Western tonal harmony and explored musical steps beyond. The list includes Schönberg, Berg, Webern, Satie, Varèse,

Boulez, Stockhausen, Schaeffer, Feldman, to name only some of the most prominent earlier names, but John Cage's name, perhaps, stands out from the rest as the most radical and the most articulate and eloquent in saying in words what is happening to music in his and our time.²⁴ There was a straining at the limits of harmony already noticeable in the nineteenth century, when dissonances were explored within the chromatic scale to the point where an exhaustion of harmonic potential in composition became apparent. In the early twentieth century, the corset of harmony was shuffled off, and music frolicked in subsequent decades discovering a hitherto unknown freedom of movement. Cage's teacher, Schönberg, took the theoretically formulated step beyond harmony by granting 'equal rights' to each tone in the twelve-tone chromatic scale, thus breaking the harmonic dominion of the tonic, dominant and subdominant over the other tones. The tones nevertheless remain related to one another in twelve-tone technique through the prime series that remains the ἀρχή of the composition. Only certain operations on the prime series are allowed in dodecaphonic composition such as transposition up or down, reversal, inversion and overlapping superposition of parts of the series. The music also remains tonal in the sense of being composed entirely of pitched tones. Insofar, the term 'atonal music' is a misnomer.

The twelve-tone composition technique was radicalized, again without leaving the realm of tone altogether, in serial music, by subjecting not only pitch, but also other musical parameters to compositional control. The dissolution of harmonic arithmetic ratios in the continuum of number and the extension of the dominion of the musical ἀρχή into a polyarchy are shown by the specification of the parameters of serial music as "frequency, duration, intensity, timbre and sequence" (Frequenz, Dauer, Intensität, Timbre und Sequenz; Metzger 'John Cage oder Die freigelassene Musik' I 1990 p. 8). The multiplication of musical parameters demands the departure from simple harmonic, arithmetic ratios because these other parameters can only be grasped mathematically by real numbers, not just by counting numbers and their

²⁴ Cf. also my earlier extended discussion of Cage in Eldred 1995/2006.

simple successor ratios. The pitch of a tone expressible as an harmonic ratio relative to the tonic thus becomes a “frequency”. Rhythm is no longer a counting pattern punctuating the counting of time, but becomes “duration” that can be measured, specified and collaged with arbitrary precision by clock-time. Intensity is measured in the continuum of decibels. Timbre, or the colour of a tone, is harder to capture mathematically, but is not beyond the grasp of a specification in terms of a set of characteristics of sound wave functions that will come into its own with electronic music. Finally, sequence can be specified arithmetically, but only as a permutation that mixes up natural ordinal counting.²⁵ Such permutations are the subject of combinatorial mathematics. Serial music is enthused and inspired by the prospect of total mathematical prescription of the movement of tones that goes beyond what tonal harmonic composition traditionally sought to control, namely, a movement of tones whose pitch and rhythm are governed by arithmetically specifiable harmonic ratios and rhythmic patterns.

If the scandalizing dodecaphonic and serial musics, which shocked their publics by violating conventions of harmonic musical propriety, still kept to pitched tones, it was an even more shocking event when noise was permitted entry to music (e.g. the elaborate percussion and siren sounds in Varèse’s *Ionisation* ca. 1930). The break-in of noise is experienced not for the first time, but nevertheless very graphically, undeniably, simply and observably, with Cage’s compositions for prepared piano. The strings prepared with bolts, screws, erasers, pegs, paper, etc. destroy the pure, pitched tone in favour of a noise with its more mathematically complex sound wave. The musical piece thus gains a percussive, ‘gamelan’ flavour in which the prepared strings provide percussive rhythm. Countable rhythm is thus maintained. The musical art work itself displays the break with harmonic ratios which, of their nature, can apply only to (the pitches of) tones.

²⁵ It should be noted that such a prominent expert on New Music as Heinz-Klaus Metzger (I 1990) does not go into the momentous shift from harmonic arithmetic ratios to mere mathematical quantification, presumably because a close confrontation with the Aristotelean casting of counted time is not germane to his thinking.

II.3.1 The absolute zero of musical time-space

Another of Cage's pieces, his famous 4'33" consisting of the 'absolute zero' of 273 seconds of uncomposed time-space that can occur anywhere at any time, displays to the aural and visual senses and the mind's ear a radically *other* casting of music whose parameters are no longer tonal or harmonic, but pure aural openness to the world's time-space. The borderline between the art work and the everyday world is also crossed in this work that consists simply of a simple, definite, radical *idea* in whose light the essence of music shows itself differently. As a work of art, 4'33" declares a defined space in time to *be* an art work. This space in time as an art work requires the presence of listeners open to this delimited time-space. The delimitation is performed by a precisely specified number that marks out in counted clock-time a time interval in an infinite sequence of counted moments: from now at zero seconds, to now, 273 seconds later. Insofar, this art work still relies on the *λόγος* of an arithmetic relation that marks out a segment of time-space through counted time.

The mind has to set limits to see an art work at all, and in this case, the limits are set by *ἀριθμός* that enables an art work to stand and show itself from within its defined limits. But, within this counted segment of time-space, what eventuates is only the attentive openness for time-space itself. The numerically defined time-frame is not filled with pitched tones structured according to harmonic ratios and countable rhythm, but with any sounds at all that may occur which are thus defined by the time-frame to *be* music. If the piece is performed in a concert hall, certain sounds will naturally occur; if it is performed on a traffic island at the centre of a busy metropolis, other sounds will naturally occur. Such sounds, however, are not musicked by musicians. The essence of music as the *urfugue* in its mood-granting quivering, in this case, does not make way to resounding, humanly musicked music but simply to attentive ears. What eventuates is not merely that certain naturally occurring sounds or noises are heard, but that the time-space is inevitably attuned in one way or other. The time-space itself quivers in its whiling that variously attunes the audience as music itself musics. In this piece,

music is not a human activity of producing tones or even sounds, but rather, here human being belongs to the musicking of music itself.

The listeners are attuned during the 273 seconds in some way or other, not necessarily uniformly. Although the listening audience is gathered together, perhaps in a concert hall, perhaps via a radio transmission, perhaps loosely at some venue, it remains a disparate 'we'. Attentiveness for the demarcated time-space here and now, listening to the noises from the surroundings, is only one possibility among many. Inattentiveness is another possibility, probably the predominant one. The listener's mind may wander in both time and space freely beyond the work's segment of time-space as defined by clock-time. Its inattentiveness means that it is not in the here-and-now, but elsewhere elsewhen, i.e. somewhere else at some other time in the future or past. The mind wanders by absenting itself from here-and-now and presencing other times and other places, which is what the mind does naturally, ranging freely over the three dimensions of time. In presencing what has been, what will be, what may be, what may have been, the mind is absent, rambling through the folds of time. The whiling of time is not merely the steady buzz of the present along the wire of a linear temporal continuum, but the distinctly three-dimensional temporal space in its indeterminate openness and three-dimensional degrees of freedom in which each member of the audience finds him- or herself attuned in one mode and mood or another.

Cage's piece *4'33"* redefines, recasts music by means of a simple time-frame specified by clock-time, analogously to how a piece of the wall can be declared to be a 'painted' art work simply by hanging a picture frame on it, or a pissoir can be declared to be a sculptural art work. The definition of a musical art work by specifying a time-frame leaves everything else open. It has already been noted that a listening audience cannot be confined to the here and now of the specified time-frame, but inevitably wanders temporally also to other places. It is nevertheless also attuned variously here and now in moods of irritation, impatience, curiosity, expectancy, serenity, anxiety, boredom, etc. that may have little to do with what is currently being heard. Insofar as it listens to the present noises occurring naturally, these noises present themselves ungoverned by harmonic ratios, rhythmic patterns or any

other compositorial directive. They are also not pure, but refer to happenings in the surroundings such as the sound of traffic, of doors closing, of someone coughing.

4'33" is the most extreme negation of harmonic, tonal music possible through an abstraction into the framed nothingness of pure indeterminacy. The simultaneity of tones forming an harmonic chord is abolished along with the consecutive tones forming an harmonic arpeggio. The harmonically governed sequence of tones forming an harmonious melody and the contrapuntal superposition of harmonically governed, tuneful sequences are likewise banished. There is no development, no climax, no finale, no logical beginning, middle and end. Compositorial dominion over sound has been abdicated. There are no musicians musicking in a co-ordinated way with one another according to compositorial instructions, nor producing tones or sounds in a definite sequence. *4'33"* seems to be a total negation of all music. All that is left is the specified segment of time-space that frames the work, which could be regarded as its ἀρχή. Otherwise it is anarchic. It is as if this segment of time-space itself musics.²⁶ It can do so only if someone listens to and willy nilly allows himself or herself to be attuned by it. There must be a listener who belongs to the musicking of music itself, which is the quivering of appropriation. Thus does *4'33"* recast music from scratch. Human being belongs, is enpropriated to appropriation by way of its attuning human being, thus opening human being moodfully to the world.

Another of John Cage's works which is much more structured, complex and specified than *4'33"* is his *Il Treno di John Cage*, a three-day train trip organized in northern Italy in 1978 as a festival at which also music and dance in the usual sense, but mostly the noises of the train itself, both exterior and interior (in the carriages), made the music. The train was prepared with microphones and loud-speakers inside and outside the carriages to transmit noises. People at towns along the train's route took part in the festivities each time the train stopped and, of

²⁶ "Music composes itself" John Cage on his 'Etudes Australes', cited in Charles 1979 p. 39.

course, there were also the passengers on the train itself who made their own noise — their conversations were not part of the music. In his detailed description of this Cagean happening, Daniel Charles makes the insightful remark, “Now let us stop at this concept of space and emptiness. It designates a space of encounter, and the forward and return journeys of *The Train of John Cage* in any case have the merit of having made a way, laid down a track — no matter how predetermined this way may be by the rails — in order to approach (if not to recognize, as Hegel says) the other.” (Charles 1979 p. 36)

Cage’s train-work lays down a track, by means of precise specification of the boundary conditions for a defined segment of time-space to allow things to happen for those taking part. Here it is easy to see how disparate the experience of this work must have been, depending on the singular situation of each individual, and yet constituting a three-day ‘we’. The music happens as the world itself, including also the playing of harmonic, tonal music by the bands who show up at the railway stations, and the work is hardly restricted to an aural phenomenon. The work is only such by having its limits, its boundary conditions laid down, e.g. where the microphones and loudspeakers are to be installed. Insofar as the λόγος of νοῦς gathers into the definite limits of an ἰδέα, it can therefore be said that the train-work is logical, but its λόγος is neither harmonic nor rhythmic according to counted time.

II.3.2 Spatiality of Cagean musical happening

A further aspect of Cagean music is the *superposition of works* in simultaneous performances.²⁷ Cagean music listens to the urfugue of music itself musicking and hears that it is not tones that are superimposed to form chords according to harmonic rules, nor melody lines superimposed according to the rules of contrapuntal harmony, but sounds and noises themselves, some of which may or may not be pure, pitched tones. This alters the *spatiality* of music, for now there is no

²⁷ For example, the superposition of *Rozart Mix, Concert for Piano and Orchestra* and *Song Books*; cf. Charles 1984 Fourth Interview p. 160.

distinction in music between musical tone and unmusical noise, so a musical performance does not have to be protected from the outside world of noise. Conversely, musics can now commingle without having to obey the arithmetic ratios of harmony as to which sounds fit with one another. Moreover, the performance of different, superposed works now allows and requires a spatial distribution; the music emanates from different locations. The musicians themselves may even move during the course of playing. The spatial placement of musicians performing the same work now enters as an additional parameter for the performance of musical works, or rather, happenings. The term ‘happening’ is more appropriate than ‘work’ because of the underdetermination of the music by the composer’s instructions and its permeability to the sonic surroundings. A work requires definite limits (ὅροι) to define it, but the Cagean *λόγος* leaves a lot open, defining only precisely the loose boundary conditions for a spatio-temporal happening.

The spatial separation of locations of the musical performance means that there is now no listening centre, no concentration on a location at which the performance is to be ‘authentically’ heard. The *ur*fugue of Cage’s New Music thus sends musical happenings also for a *plurality* of listeners located at different places.²⁸ Each listener is an *individual* with its own freedom of movement, whose experience of the performance is individual, even though he or she is part of an overall happening with an overall mood. The listener’s individuality does not stand in contradiction to a musical work’s definite definition according to a score allowing only certain interpretative room for play. Rather, each individual listening experience is valid in itself within the parameters staked out by the composer’s specification of the musical happening’s boundary conditions.

²⁸ “This year [1980 ...] I heard a string quartet by Morton Feldman consisting of a single movement lasting one-and-a-half hours. It was beautiful *because* it was not beautiful. Through the length it did not become an object. Despite that it would have left behind the same impression if the audience had not been chained, but had found itself in a different architectural situation that had permitted egress and access at any point in time and space, i.e. at home.” John Cage in Charles 1984 Fifth Interview p. 183.

The spatial dispersion of superposed musical happenings or of musical performers induces also an other musical *architecture*. Western harmonic music's architecture is focused, concentrated on the centre of performance whence the work's score is realized acoustically. 'Ideally', i.e. according to the ἰδέα, there is a central stage for the musicians around which the audience is seated (semi-)centrically to concentrate on the single source of emanation of the performed score. The architecture of a concert hall is consequently concentric, and infinite amounts of care are applied to ensure the acoustically pure dispersion of sound from the centre. The audience remains seated, still, to focus on and absorb the work, with certain seats being preferred over others whence the central source cannot be heard as well. Cagean music, by contrast, permits and demands freedom of movement of the audience, which is no longer *concentrated*, but rather *open* to and *dispersed* among the acoustic happenings in which the performance of several compositions may commingle, and that differently at different locations.

II.3.3 Historical recasting of music's urfugue

Since Cagean music sets the boundary conditions for a musical art work so widely, thus admitting also the *play of contingency*, it is no wonder that not only composers, conductors and musicians from the tradition of Western harmony, but also composers in the avant-garde, such as Boulez and Xenakis, have accused Cage of "amateurism" (Charles 1979 p. 39; cf. also Eldred 1995/2006 Chap. 8). Boulez, Xenakis and others presumably regard themselves as having remained within 'rational' professional bounds of composing music that can be taken seriously. Cage's conception of music, which he has expounded in diverse ways over many years with commendable lucidity, therefore opens up a rift; it causes strife among composers at the forefront over how Western music is to be recast outside its harmonic cast, and this is a conflict of *ideas*, i.e. over the alogical *sight* that music offers of itself beyond the harmonic-rational λόγος of counted time. To carry out this conflict requires a clear idea of the essence of music, which is nothing musical in the usual sense. It therefore cannot be decided solely by discussing music as composed for and musicked by human beings.

In my 1995 study, from another angle, I have tried to lay out what an art work is in the Western metaphysical sense. Contingency is antithetical to the idea of a work, for which there is an ἀρχή that, as know-how, knows how to bring finally a work about, controlling and correcting contingency along the way. To admit contingency itself into the making of a work, and an art work in particular, is to abandon, or at least loosen, archical control and to leave the result open to the play of chance. Hence Cage's idea of music represents a radical break with the very conception of a musical work. He does not accept merely "controlled aleatoric", like Lutoslawski did, but goes the whole way in allowing the resulting musical happening to contradict any intentions and likes and dislikes he may have had.

In the present study I try to think through the essencing of music, its urfugue, and of Western harmonic music in particular, in a non-metaphysical way, using Heidegger's late thinking on the essencing of language as a guide. Perhaps this effort will provide some orientation for ongoing discussions on the making of Western music. With respect to Cage it can be asked, what urfugue of music's essencing he was listening to. The urfugue of Cagean music is a loosening of the hold of the λόγος over sonic movement that allows room for the play of contingency in the world's happening time-space. This urfugue's quivering grants a mood of calm letting-be to listeners and performing musicians on making way to music. The historical essencing of time that goes hand in hand with a Cagean music is three-dimensional, ecstatic time in which the history of a sound is neither a causal chain nor an harmonic law, and the sonic future has an openness to the play of contingency rather than a causal or law-like predetermination. That this formulation may not be far from the mark is suggested by Daniel Charles' question to Cage, "Accordingly it seems that for you music is the best means of clarifying this process of an access to being, this movement of 'openness' that we cannot name without deforming it?" (Charles 1984 p. 185)

II.4 Music as critique and subversion

II.4.1 Electronic music as social critique?

Under the name of its leading-light, Adorno, the Frankfurt School has for decades been at the forefront for those thinking critically on music in the sense of criticizing politically the existing social relations of capitalism. The vocabulary of the culture industry, the production of music for profit and the consumption of pop music by the acquiescent masses, the manipulation of mass taste by corporations, class domination, alienated wage-labour, the commodification of art works, the view of avant-garde music as an Utopian anticipation of a society free of domination has become commonplace and put into practice by numerous progressive composers.

For one of Adorno's most prominent disciples, Heinz-Klaus Metzger, avant-garde composers are in alliance with those who "name the technical need of the age by its social name and demand the technically immediately possible dawning of the Messianic age, a humankind well cared for in every way. Shocking ways of playing orchestra instruments may contribute to this." (die technische Notdurft der Epoche bei ihrem gesellschaftlichen Namen nennen und den technisch sofort möglichen Anbruch des messianischen Zeitalters, ein in all Stücken wohlversorgte Menschheit fordern. Dazu mögen choquierende Spielarten auf Orchesterinstrumenten beitragen. Metzger I 1990 p. 15) Music is given a Messianic, Utopian socio-political mission to open the future anticipatively by practising free social relations on an experimental basis. This understanding is explicit in Metzger's writings and in musical works by John Cage and Christian Wolff, in particular. Such a politically critical music, however, presumes that a politically critical, anti-capitalistic stance can be taken as read and applied as a criterion for the making of progressive music. The liberation of sounds from the laws of harmony, as pioneered by Cage and taken up by many others, and the liberation of people from social relations of capitalist class oppression, however, may not fit together in the way so easily presupposed and wished for.

In an essay published in 1976, Gerry Stahl adds a further interesting aspect to the critical stance of the Frankfurt School and its wake by considering also, on the other side of the political divide, Heidegger, who, especially in hidebound Germany, has been exposed to sustained campaigns of political defamation. One can notice an infiltration of Heidegger also into Daniel Charles' writings, more subtle than that into Stahl's. Stahl bears all the markings of a critical left thinker willing to appropriate certain aspects of Heidegger's thinking for the good cause of social liberation. This is problematic insofar as the question is not posed regarding the freedom of human being as such; rather, the unfreedom of human being under capitalism is presupposed politically, pointing, in turn, to a political revolutionizing of social relations. The moot point is the philosophical relationship between Marxian and Heideggerian thinking, which can never be clarified from within an assumed political stance because, in posing the question of the historical possibility of freedom, all political preconceptions must be suspended as too superficial for the task of thinking (cf. Eldred 2000/2010). The very question of free sociation — and with it the question of the ontology of social power (Eldred 2008/2011) — is at stake. The gaze has to focus on that which *is* — a question of epochal being — in order first to see humankind's historical predicament and what it has to do with deep-seated ways of thinking initiated in ancient Greek philosophy that are all too blithely still assumed today as self-evident.

Stahl assigns to electronic music the task of encouraging “an original way of creatively dwelling in the world, of existentially understanding contemporary Being, and of receptively anticipating a new epoch. When perceived as situated in industrial society, electronic music, like Heideggerian philosophy, evokes a radically different form of technology...” (Stahl 1976). He asserts that “the manipulative techniques of pop music serve to maintain existing power relations throughout society. Their removal would clear the way for democratic alternatives in the production, distribution, and consumption of culture”. This has a Marcusean flavour that mixes also with Feenberg's critique of technology (cf. Eldred 2009b) which proposes that liberation consists in genuine democratization pervading also the economic sphere, replacing

the capitalist ‘logic’ of profit maximization by a politically democratic organization of economic life, as if democratization per se could unleash human freedom and that manipulative social power relations derived only from capitalists’ gainful strivings. Talk of “manipulation” suggests a capitalist class conspiracy to dupe the masses, who would be free if only they could shake off their wage-labour shackles.

Stahl singles out “Karlheinz Stockhausen, Iannis Xenaxis, and Pierre Boulez” as the representatives of European electronic music who reflect on “the tradition which Cage simply rejects”, thus maintaining a link to it in “systematically criticiz[ing] the categories which define their heritage”. Stockhausen, for instance, is a pioneer of electronic music who explores its possibilities experimentally. “Each of Stockhausen’s pieces, for instance, pursues a different idea: rhythmic permutation, timbral variety, spatial movement, changing essential parameters: total system, human improvisation, pure chance, degrees of determination; vocal, orchestral, electronic, mixed sources.” The historical preconditions for such experiments in electronic music include the technological means for the unbounded manipulation of electronic sounds and the exhaustion of the potentials of the European tradition of harmonic music that provoked Schönberg, Webern, Varèse and others to go beyond it. As a composer working after the rupture, Morton Feldman points out, “One of the problems about functional harmony is that it hears for us, see. We no longer have to hear.” (Feldman 1984 p. 159 cited in Staub 1992 p. 86) Harmonic music had become clichéd for the ears.

There are, however, deeper-lying historical movements afoot intimately related to the onset of the modern age itself and a concurrent transformation of the essencing of time. The exhaustion of harmonic music, its supercession, its survival and continual re-enactment as a beloved museum treasure in the world’s finest concert halls and the commodified popular song, all entertain subterranean ties with the closing of the gap between arithmetic discreteness and geometric continuity under the impetus to gain a mathematical hold on motion (Descartes, Newton, Leibniz). Time itself comes to be regarded as a continuum of real numbers, rather than as the rhythmic beat of a clock

counting movement. This is the mathematical precondition for coming to terms with motion in time. In his *Regulae*, Descartes lays down the blueprint for the mathematico-scientific modern age by prescribing that the access to all phenomena shall be by way of magnitude (Eldred 2009/2011 § 2.7). This mode of access ensures that from a given now-point in real time, the dynamic state of a physical system at another time can be precalculated through solving the pertinent equations of motion. In music, it is the score that prescribes a determinate sonic movement according to various sonic parameters.

Sound is just one phenomenon among many others that is subjected to a mathematical treatment by the science of physics as a continuous sound wave consisting of rapid oscillations of a medium, usually air. The mathematical analysis of sound waves becomes an endeavour of research that goes beyond what Pythagorean harmony has to say about pure sounds. Pure sine waves that can be characterized by a single frequency parameter signifying a pure pitch are now only one very special case among sound waves that may consist of the most complicated superpositions that include not just overtones describable by harmonic ratios. The analytical insight into sounds, including the noise of everyday surroundings (street noise, traffic, machines, factories, trains, planes, sirens, etc.), makes them more amenable to deployment in musical composition, especially through the fact that appropriate electronic technologies arise that can generate waves according to precisely calculable and controllable parameters including frequency, amplitude and superposition of many waves.

The anharmonic irrationality of noise is no impediment to a mathematical science of (continuous, but approximatively digitizable) sound waves and its auxiliary electronic generative technologies, so that complex sounds come within the scope of such logical compositorial imagination. Sound waves, no matter how complex, can be generated, composed and manipulated at will. The refinement of analytic-mathematical insight into sound waves even allows a single sound or tone to be explored musically (La Monte Young). Insofar, electronic music corresponds tacitly to the Heideggerian set-up (*Gestell*) as the essencing of modern technology.

The mathematico-scientific access to beings as a whole in the Cartesian age discloses the stuff of music to be sound that shows itself to the mathematico-scientific composer's mind as sound waves with a certain mathematical description. During the classical age of harmonic music from the ancient Greeks through to the nineteenth century, the stuff of music was tones that could be composed and controlled according to certain laws of harmony that underwent modification and refinement throughout this epoch. Here, as elsewhere in this study, harmony is understood to encompass not only the harmonic ratios of chords, the determination of scales, the quint circular relations among keys, but also melody and the contrapuntal relations between melody lines. Musical technology delivered instruments that produced tones of pure timbre that were disclosed to the composer's mind through the laws of harmonic ratio. Electronic music depends on an alternative historical disclosure of sound in which the parameters number more than only pitch and rhythmic duration as composed in notated music.

If electronic music is an offspring of the set-up that remains hidden as such to today's composers, musicians and audiences, how does this affect Stahl's and others' claim on this advanced music as a vehicle for a social critique of capitalism? This question cannot be answered within music theory since it is a philosophical question concerning the interrelations between the essences of technology and of capitalism. These are the set-up and the gainful game, respectively, which will not be spelt out here (cf. Eldred 2000/2010). The commodification of music corresponds to, is a response to the gainful game. The critique of capitalism is not that of exploitative, surplus-value-pumping class domination, but of all-pervasive, desirous, gain-seeking across all classes. The selling of music, both live and recorded, is a process of valuing and estimating that music on the market. The greater the popular appeal of the music, i.e. the more clichéd the tune, the greater the revenues. The proceeds of realized market valuation flow to musicians, composers (songwriters), promotion and record companies. An audience only buys music in live or recorded form because it has some appeal that is always associated with some mood of other that is part of the feeling for life of that audience. For the most part, music caters, or even

panders, to bringing to resonance all sorts of everyday moods that are part of everyday living in our age, reflecting the moods of the age and thus confirming, and even engendering, personal identifications with the world. Popular music is and must be entertaining. As such, there is nothing avant-garde about such musics, although there are ever new waves of popular music arriving that are fashionably and faddishly in tune with current social vibes.

The commodification of music is enabled especially by its reproducibility which, in turn, goes hand in hand with the electronic technologies enabling such reproduction. Electronic music itself is peculiarly suited for reproduction, being as it is 'loud-speaker music' whose signals can easily be recorded, processed and mixed. The reproduction of recorded music is even able to capture the spatiality of multiple sound sources to an extent through stereophonic, quadrophonic, etc. recording and playback. There is a conviction among many composers and musicians, John Cage being a prominent example, that only live music is genuine music. Some of Cage's most famous compositions such as his various *Imaginary Landscapes*, turn electronic devices such as radio receivers, magnetic tapes, vinyl records, into sources for live music performances by subverting the mere playback of a recording through techniques of random mixing, in particular, akin to collage techniques in fine art.

No doubt there is a considerable difference between live performances of any kind of music and the playback of a recording, whether it be a studio or live one. Many musicians can only make the music they make by performing it live, experiencing that live musical atmosphere, so that a live recording is only a secondary by-product, a pale documentary. Listening to recordings is generally done in one's private sphere, whereas live performance has a public — two entirely different atmospheres. In today's electronically facilitated world, however, the experience of listening to music is overwhelmingly one of listening to 'canned' music. Much music, whether avant-garde, classical or pop, would never come to the ears of listeners without recordings and electronic media. Today's multiple media of music dissemination convey also a music's vibe to which listeners attune. Recording

techniques have become technically superb. The pleasure of listening to music of all kinds remains healthy, even and especially under historical conditions of its reproducibility. The mass diffusion of music through recordings and mass media, whether it earns money or not, can perhaps justify itself through the few thoughtful, listening ears that will hear also the most interesting avant-garde compositions. In any case, to proclaim live music to be 'authentic' and recorded music to be 'inauthentic' is a too easy dichotomy.

So-called cerebral music that arises through reflection on the deeper structures of music and attempts to explore beyond the limits finds it difficult to survive through audience appeal, since it sounds strange, not resonating with any familiar mood and not repeating well-loved, familiar musical clichés. Nevertheless, such pioneering music bravely opens the way to the appropriation of strange new sounds that find their way also into popular musics as sound effects, adding a spice of innovation to familiar, done-to-death harmonic formats. Avant-garde composers compose not for money, but for the sake of enjoying a creative life of sonic exploration. There is willing renunciation in this. An avant-garde composer needs to find a niche in civil society providing enough income to support a creative composer's life. Therein lies no critique of capitalism per se, since it is the reified, money-mediated interchange of a liberal capitalist society that spawns the modest, meagre or comfortable, interstices of individual creative freedom (Eldred 2008/2011 Chap. 11 vi) et seq.).

II.4.2 An attunement to being through electronic music?

Although Stahl's 1976 article is entitled, 'Attuned to being: Heideggerian music in technological society', very little is said of attunement at all, let alone in relation to the nature or essence of electronic music, which is at the focus. The only passage referring to attunement reads:

The secret of composition, says Adorno, is the power to transform the material in the process of progressive adequation. Where it achieves this, electronic music provides a model of an openness to Being which forswears the imposition of will in favor of an appropriation which lets Being be what it

historically could be. Here, more than in any of Heidegger's own writings, it becomes clear how much fine-tuning attunement requires.

How does electronic music, of all musics, renounce an “imposition of will”? If successful composition consists in “the power to transform the material in the process of progressive adequation”, how is this not a fashioning of the material according to the essence of *ποίησις*? And to what is the material fashioned and manipulated through “progressive adequation” if not to a guiding *ἰδέα*, a sight of being, that the composer has in mind? Electronic music’s composition, Stahl claims, is ‘tastefully’ varied according to the procedure, “techniques suggested by the electronic instruments are tried out, judged by the ear, varied, explored.” “Attunement” in the above-quoted passage must be interpreted in the sense of “adequation” and ‘being in tune with’, not simply as mood. Why is electronic music at all especially attuned to “what it [Being] historically could be”? Since electronic music enables total analytic control over sounds, even more so than serial music, how could it amount to a letting-be? In breaking with the laws of harmony, electronic music “is determined to eliminate the subjective willfulness inherent in the suppression of all noise”, thus admitting noise *as* musical. This admission of noise, however, “requires increased control over its materials”, which Stahl seeks to justify by referring to an unconvincing dialectical figure in Adorno:

Only a music which is master of itself would also be master of the freedom from every constraint, even from its own. This follows the analogy that only in a rationally organized society would the necessity of oppression by organization disappear along with want. [...] The consequence of artistic technique as truthful domination is always simultaneously also its opposite, the development of the subjective sensibility into a receptivity toward the impulse of that which is not itself subject. (Adorno 1963 p. 432)

Adorno’s notion of “truthful domination” is one of sensitive adequation to the musical material in line with the traditional Aquinan formula for the essence of truth as *veritas est adaequatio rei et intellectus*. It is hardly radical, especially when paired with a problematic faith in a “rationally organized society”. How this continued Adornoean faith in the metaphysical *λόγος* is to be reconciled with Heidegger’s momentous attempt to overcome, or slip around the *λόγος* and the determination of

human being as τὸ ζῶον λόγον ἔχον remains unanswered in Stahl's essay. The λόγος, rationality and ποίησις remain at the core of both Adorno's and Stahl's determination of the essencing of music, thus passing over the access to being's temporal quivering itself through attunement that can never be gathered and brought to a stand by the λόγος.

What being could be historically — for Stahl as well as, presumably, for the Frankfurt School — is generalized democracy that encompasses also the economy, thus overcoming class domination, a prospect Stahl finds neglected in Heidegger's thinking. Such collective subjectivity is not a particularly radical prospect, and it depends on suggestively equating democracy with freedom, a highly contentious postulate. The question is rather, is humankind at all capable and desirous of an alogical freedom whose very sense first has to be cast through long disputation with the philosophical tradition. Moreover, if attunement is taken to mean being in tune with being's reverberations throughout time-space, what does this have to do with attunement as the moodful way in which the world opens up for historical human being?

II.4.3 Audible ecosystemics (Di Scipio)

The still metaphysical, productionist emphasis in electronic music on the electronic control of sound waves is tendentially subverted in some of the electronic “audible ecosystemic” compositions of Agostino Di Scipio which also demonstrate that music is not the expression of a composer or musician subject's interior, but depends in the first place on a receptivity for the world. Di Scipio has developed electronic works which depend on the ongoing acoustic feedback from the environment in which they are set up. Feedback loops alter what music can be heard by the listening audience whose audible movements themselves feed into the live ‘performance’ of the electronic circuits. Hence he says of one of his works:

Stanze Private - Private Rooms amplifies the noise inside these small rooms, these few transparent jugs and glass ampoules. And it amplifies the noise in the surrounding environment, in the largest room where the installation is placed. It produces sound from the audience. We as listeners can not only be part of this small ecosystem, our physical presence alters the acoustics of the surrounding

space, altering the dynamic. [...] Often I detect sounds reflecting the social function of the surrounding space, but small sounds that are typically removed from our auditory experience - acoustic scraps, sonic garbage. These sounds are analyzed by a computer, with digital signal processing methods, so the computer measures some features of sound, and that information is finally used to drive the process of generation and transformation of the environmental sound itself. [...] the computer process is rendered space-dependent, adaptive. (Di Scipio 2009)

One can see that in this sophisticated electronic work, the electronic control of sound is employed to renounce control over sonic happenings. It also demonstrates, in contrast to subjectivist-expressionist conceptions of music tied to modern aesthetics, that music as sonic art is generated by human being-in-the-world and human receptivity to this being-in-the-world. The subject-object split that has become dumbly unquestioned second nature everywhere in today's thinking becomes untenable in this work if one is prepared to reflect upon it.

The assertion by Di Scipio's interviewer, Marco Mancuso, that "*Stanze Private - Private Rooms* uses sound as a medium and a means of emotional communication, as a real transfer of behavioral information." (ibid.) is therefore questionable in multiple ways. Is sound "used" as a "medium" and "means" of "emotional communication" for a "transfer" of "information"? All these terms belong to the vocabulary of subjectivist-productionist-metaphysical aesthetics, and do not do the sonic work itself justice. To regard sound as a "medium" for transferring "information" is to overlook that sound does not have to 'mean' anything, not even emotionally, but that it quivers moodfully with the world. To claim that the work amalgamates multiple levels "into a single emotional and aesthetic" experience and employs "the sound as a material in space" is a hackneyed way of thinking. Rather, the work is more appropriately conceived as a live interplay among its elements: the 'noisy' listeners, the walls of the room, the nodes of the electronic network which has been tuned by trial and error to deliver acoustically acceptable results for listening ears (e.g. no split ear drums) that are accompanied by attunements beyond electronic control.

II.4.4 A musical subversion of harmonically logical time (Feldman)

Several composers of New Music such as Cage, Wolff and Nono understood their composing also in political terms. Cage and Wolff, for instance, debated the merits of anarchism vs. socialism, and both conceived compositions that were intended to anticipate anarchist or socialist social practices. This does not apply to the Jewish New York composer, Morton Feldman, who was concerned with the possibility of composing music when “after Hitler perhaps there should no longer be any art”. (Feldman 1972 p. 154, cited in Staub 1992 p. 50). In the same interview Feldman says, “in a certain way I mourn [...] that Schubert has left me”. Feldman’s composing still lives from the great period of nineteenth century German music from which, after the “death of art”, he wants to salvage “these very few things very essential to me [so that...] it can go on working at least a while longer” (ibid., cited in Staub 1992 p. 49). Feldman relates his composing to one of the most momentous and disastrous political events in history, National Socialism, that has tarnished and discredited, if not voided, everything German, including even great German music. Feldman’s music, like Christian Boltanski’s art, thus has a relation to time, namely, the time *after* the disaster.

This disaster, however, may have a deeper connection to time, unbeknowns to Feldman himself, than being situated within a sequence of world-shaking political events. An historical transformation in the essencing of time in connection with the historical consummation and demise of the Western λόγος is not accessible to historiography’s investigation into and recounting of events, but only to philosophical thinking that traces the deeper, scarcely perceptible movements in historical time itself that leave a mark in certain philosophers’ thinking. Cage has been presented above as a composer who has broken radically with the hegemony of the harmonic arithmetic λόγος in music that relies on counted time. He lucidly formulates in thoughtful words of Buddhist inspiration what he is doing in his art, leaving us to connect the dots as

to what this means for the essence of Western music, which, as already pointed out, is nothing musical.

With Feldman, the break with the *λόγος* is not so visible and demonstrable, nor spectacular, but it is there and resides hidden in the enigmatic nature of his music. He does not introduce any new system of music, nor even any new principles, nor is he nearly as straightforward a presenter of his guiding thoughts as Cage is. “His pieces are not serial, not programmatic, not aleatoric, and not even post-modern or historical. They do not refer unambiguously to anything and are not theoretically secured.” (Seine Stücke sind nicht seriell, nicht programmatisch, nicht aleatorisch, und auch nicht postmodern oder historisch. Sie verweisen auf nichts eindeutig und sind theoretisch nicht abgesichert. Staub 1992 p. 57)

As Staub lays out in his careful, detailed study, Feldman takes the traditional system of harmonic music, including its conventional notation, and *quietly* and *subtly* subverts its harmonic intervals and rhythmic patterns so that they wobble and quiver in another acoustic time. Thus, for instance, the counted measure for each bar in the score of the eighty-minute-long *Untitled Composition* from 1981 which Staub investigates, first concentrating on a detailed analysis of pages 17 and 18 of the score, changes bewilderingly from bar to bar. For example, there are the 9 bars of the third pattern on p. 17 of the score with the sequence 3/16, 2/4, 3/16, 3/8, 1/4, 5/16, 1/8 3/16, 2/4. Although there are repetitions of single bars, these crop up and disappear unexpectedly. The repetitions of groups of bars such as the nine mentioned above are permutations with ‘neither rhyme nor reason’. The interplay between piano and cello is, for bars on end, a back-and-forth between just two tones, d²⁹ on the piano and f²flat as harmonic on the cello, where at first it is a mystery why the cello’s note should be notated as f²flat and not simply as e², its logically notated equivalent in the harmonic scale.

Although notated in the conventional harmonic system, the music’s rhythm is quietly broken by continual irregularity. Although acoustic

²⁹ c² denotes the c an octave above middle c (c¹), etc. c is an octave below middle c, C two octaves below.

time, i.e. the duration of notes and rests, continues to be counted by bars and within bars, it is an irregularly counted time with a wobble, aperiodic, without a recognizable pattern. Staub, following Feldman himself, interprets the insistent repetition or reiteration of the interval between d2 on the piano and f2flat on the cello as the offer to perceive this small interval of a minor second in hundreds of different shades of colour, just as the naturally dyed colours of a Turkish carpet, whose fabric is dyed in only small lots, vary in the finest of gradations and are woven into the carpet in such a way that an irregular, unforeseeable, intricate chromatic pattern results “that gives the basic colour a quite definite sheen and shimmer” (Sie [die Farbabstufungen] verleihen der Grundfarbe einen ganz bestimmten Glanz und Schimmer. Staub 1992 p. 78). The cello offers the possibility of playing f2flat in a thousand finely differentiated ways, whereas the piano, whose tuned strings are hit by felt hammers, is tied to its tempered d2. “When you’re working with a minor second as long as I’ve been, it’s very, very wide.” (Feldman 1984a p. 114/192 cited in Staub 1992 p. 52)

Even within harmonic theory, there is no unambiguous harmonic definition of the minor second interval as an arithmetic ratio. It could be 16:15, 17:16, 18:17, 19:18, 20:19, 21:20, 22:21, 15:14, 14:13 or even 13:12 (Staub 1992 p. 54). The countable successor ratios forming the basis of the harmonic system elide into a hard-to-define, broken continuity as the successor ratios approach unity, and this is the indefinable ambiguity with which Feldman works, allowing the music to ring out in myriad different tonal shades in an unpredictable, arhythmic time. Although the interval between d2 on the piano and f2flat on the cello is mostly played in that order, suddenly it may invert to its opposite, and then revert to the original order. Or the pair of notes is interrupted unexpectedly by a single note followed by a bar of rest. Although there are patterns, they are irregular and subject to countless fine variations on repetition.

Feldman, however, avoids speaking of variation or repetition when referring to two aspects of twentieth century music: “One is change, variation. I prefer the word change. The other is reiteration, repetition. I prefer the word reiteration. [...] The change then becoming that which

then becomes reiteration, and the reiteration is changing. [...] So it's the same, but yet it's not the same." (Feldman 1984a pp. 212, 193) The reiteration of patterns leads to differentiation. "And I want to see 'differentiation'..." (ibid. p. 186) The word variation suggests there is an underlying, unchanging principle that is varied, as in variations on a theme, but Feldman's enigmatic music has no principle in this sense. He therefore also avoids speaking of concepts, preferring instead acoustically realistic things that are *perceived*:

The piece last night [String Quartet (II)] is involved with two aspects which I feel are less conceptual and more realistic. I'm interested in realistic things, actually. We'll talk about concepts. So I try not to give something a name. That's very, very, very important for me. (ibid. p. 184)

Avoiding concepts and words amounts to avoiding the *λόγος* and its underlying hold on the music as a principle. In the place of methodology, serial, aleatoric or whatever, Feldman has a perceptual focus that shifts unmethodically in processes of retranslation. "What I do then is, I translate [...] Always retranslating and then saying, now let's do it with another kind of focus." (ibid. p. 186) The avoidance of concepts and names accounts also for his disconnected, leaping style in lectures and writings.

Later in the score of *Untitled Composition*, the piano starts playing chords, broken chords and arpeggios whose notes do not fit together according to any of the harmonic laws. They are neither harmonious nor dissonant because they are simply outside the harmonic system. And yet they gather themselves in their reiterations and fine retranslations into their own acoustic unity as if they had their own idiosyncratic, strange logic. So in this way, too, Feldman composes notes according to some 'as if', pseudo-harmonic *λόγος*. The harmonic system is thus subverted in its two fundamental dimensions, of counted rhythm and of tonal intervals derived from arithmetic successor ratios. There is no simple, nor even complex principle from which the composition could be derived. "One cannot help but notice in the course of writing a piece that some underlying principle seems to be there. Now, the question is to what degree you want to embrace this underlying principle. [...] Sometimes you meet it halfway. Sometimes you just shake its hand and

it leaves...” (Feldman 1976 p.4 cited in Staub 1992 p.46) The composing just happens through acutely focused attention, goes on and on, and “dies a natural death” (Feldman 1984a p. 203, cited by Staub 1992 p. 57). The λόγος of Western harmony does not hold sway in Feldman’s music, although it is hard to put one’s finger on just how this takes place, since the music proceeds so quietly and self-assuredly.

The music is enigmatic because reason (ratio, λόγος) cannot see and define the basic counted rationality in it, neither rhythmically nor harmonically. The counted rhythm becomes jumbled, and the fine gradations of tonal interval lead the harmonic ratios ad absurdum. There are definitely patterns in this music, but they are continually shifting in subtle ways that the ear can scarcely follow, let alone make sense of. Acoustic time itself quivers differently in Feldman’s music, beyond the control of the λόγος, granting moods that neither fit the conventional emotional logic of beloved Western harmony nor permit unreflective jubilation, hubris or brash self-confidence.

II.4.5 “The composer makes plans ... Music laughs” (Feldman)

Feldman is aware of the dilemma in which music finds itself after the rupture with harmonically logical music, and he knows of the Greek origins of music, “that for something to be beautiful, it must also be sensible” (Feldman 1985 p. 113), and that music is “logical” (ibid.), so that “all we are left with is just this duality — of precise means creating indeterminate emotions” (ibid.). This is a traditional, productionist conception of music-making, with “emotions” as the indeterminate product, i.e. the musical logic, although harmonically precise, is not able to precisely bring forth determinate emotions, just as the τέχνη of rhetoric aims at, but cannot reliably bring forth a certain pre-envisaged mood in the audience.

Feldman does not distinguish between the subjectivist conception of emotion as something in the interior of a subject and the phenomenon of a mood hanging atmospherically in the air, and this is because he does not distance himself from the metaphysical split between subject and object that arose only in the modern age, which now, for him, corresponds to a “duality” or “dichotomy” between logical, harmonic

means and indeterminately produced emotions. The New Music was supposed to leave this dichotomy behind, but “a new dichotomy was about to take place” (ibid. p. 114) consisting in “a strange resistance of the sounds themselves to taking on an instrumental identity. It was as though, having had a taste of freedom, they now wanted to be really free.” (ibid.)

This is reminiscent of Cage’s intentions to liberate sounds, but Feldman distances himself from both Boulez and Cage in claiming that “it is not a question of a controlled or a de-controlled methodology. In both cases something is being made. And to make something is to constrain it.” (ibid.) This echoes the Greek productionist understanding of being — the form or ἰδέα is the guiding sight for fashioning the material into the limits (πέρας) of the final product — and at the same time hints that Feldman is trying paradoxically to do something other than constrain sounds within the limits of a composition. He is disturbed that “instrumental color robs the *sound* of its immediacy. The instrument has become for me a stencil, the deceptive *likeness* of a sound.” (ibid.) ‘Stencil’ is akin to ‘cliché’. Feldman wants to liberate musical sound from clichés, but he is at a loss as to how to do this. He “began to feel that the sounds were not concerned with my ideas of symmetry and design, that they wanted to sing of other things”, but at the same time, “to think of a music without instruments is [...] a little premature” (ibid.). “Ideas of symmetry and design” are formal ideas, i.e. ἰδέαι or sights that enable a work to come to stand and show itself from within its defined limits and thus to *be*. And yet to *be* a composer, Feldman must put together sounds, and that not merely at random, arbitrarily. Hence he says:

I have found no answer to this dilemma. [...] It seems to me that, in spite of our efforts to trammel it, music has already flown the coop ... escaped. There is an old proverb: ‘Man makes plans ... God laughs’. The composer makes plans ... Music laughs. (ibid.)

Here we have it: in the very first and originary place, music is not a human product made under the guidance of leading ideas, but is prior to composed and musicked music. The composer must first hear music’s moodful quivering in order to notate it. The sound of music sounds

soundlessly to the composer's ear, and Feldman is disturbed by the translation of the musical into the instrumental sound which, he says, "exaggerates the sound, blurs it, makes it larger than life, gives it a meaning, an emphasis it does not have in my ear" (ibid.). Urmusic resists being heard instrumentally, sensibly. Yet it is heard by the human ear. The mind's ear is attuned to urmusic and attuned by it. This urmusic has no meaning; it does not point to anything meaningful that could be understood and put into words. The only way it can make way to the human ear is through the attunement which urmusic's quivering grants and to which human being is open. Only thus is human being originarily musical, and not through making music, which is first a consequence of this originary openness and exposedness to urmusic.

III. Literature

- Adorno, Theodor W. 'Fragment über Musik und Sprache' in *Musikalische Schriften I-III* Vol. 16 *Gesammelte Schriften* Suhrkamp, Frankfurt/M. 1978 S. 251-256
- Adorno, Theodor W. 'Musik und Technik' in *ibid.* S. 229-248
- Adorno, Theodor W. 'Vers une musique informelle' in *Quasi una Fantasia* Suhrkamp, Frankfurt 1963
- Ansermet, Ernest *Die Grundlagen der Musik im menschlichen Bewußtsein* Piper, München 1965 (transl. H Leuchtman/E. Mischat) Fr.: *Les fondements de la musique dans la conscience humaine* Edition de la Baconnière, Neuchatel 1961
- Becker, Oskar 'Frühgriechische Mathematik und Musiklehre' in *Archiv für Musikwissenschaft* Vol. 14 1957 pp. 156-164
- Beckett, Samuel *Dream of Fair to middling Women* (eds.) Eoin O'Brien and Edith Fournier with a foreword by Eoin O'Brien, Arcade Publishing, New York in association with Riverrun Press 1993
- Cage, John *Silence* Wesleyan U.P., Middletown 1961
- Cage, John *Für die Vögel: John Cage im Gespräch mit Daniel Charles Merve*, Berlin 1984
- Charles, Daniel *John Cage oder Die Musik ist los* Merve, Berlin 1979
- Cross, Jonathan; Harvey, Jonathan et al. *Identity and Difference: Essays on music, language and time* Collected Writings of the Orpheus Institute, Ghent, Leuven U.P. 2004 containing inter alia Helmut Lachenmann 'Philosophy of Composition - Is there such a thing?' 'Music and Language' by Albrecht Wellmer and 'Theses on the Relationship between Music and Time' by Richard Klein.
- Di Scipio, Agostino 'The Sound Ecosystems of Agostino Di Scipio' interview with Marco Mancuso *digimag* 2009, available at <http://www.digicult.it/digimag/article.asp?id=1493> accessed November 2010
- Eldred, Michael *Capital and Technology: Marx and Heidegger* in *Left Curve* No. 24, Oakland, May 2000, revised and extended Version 3.0 www.artefact.org 2010
- Eldred, Michael 'Critiquing Feenberg on Heidegger's Aristotle and the Question Concerning Technology' www.artefact.org 2009b

- Eldred, Michael *The Digital Cast of Being: Metaphysics, Mathematics, Cartesianism, Cybernetics, Capitalism, Communication* ontos, Frankfurt 2009; revised, emended and extended Version 2.0 www.arte-fact.org 2011
- Eldred, Michael *Heidegger's Hölderlin and John Cage* www.arte-fact.org 1995/2006
- Eldred, Michael *Social Ontology Recasting Political Philosophy Through a Phenomenology of Whoness* ontos, Frankfurt 2008. Revised, emended and extended Version 2.0 www.arte-fact.org 2011
- Eldred, Michael 'Sprache (und Musik) nach Heidegger' in *Twisting Heidegger: Drehversuche parodistischen Denkens* M. Eldred (ed.) Junghans Verlag, Cuxhaven 1993 pp. 153-178. Included in the collection *Entständigkeit: Philosophische Aufsätze* www.arte-fact.org 2010.
- Eldred, Michael 'Technology, Technique, Interplay: Questioning Die Frage nach der Technik' www.arte-fact.org 2006/2010
- Encyclopaedia Britannica Ultimate Reference Suite* Chicago 2008, article on "music".
- Feldman, Morton 'XXX Anecdotes & Drawings, 1984' 1984 in *Morton Feldman Essays* (ed.) Walter Zimmermann, Kerpen 1985 pp. 144-180
- Feldman, Morton 'A Compositional Problem' in *ibid.* pp. 113-114
- Feldman, Morton 'Aus einer Diskussion, 1972' 1972 in *Musik-Konzepte* 48/49 (eds.) Heinz-Klaus Metzger & Rainer Riehn, Munich 1986 pp. 148-154
- Feldman, Morton in *Desert Plants* (ed.) Walter Zimmermann, Vancouver 1976 pp. 4-20
- Feldman, Morton 'Public Lecture in Darmstadt, 26 July 1984' 1984a in *Summer Gardeners* (ed.) Kevin Volans, Durban 1985 pp. 107-121; also in *Morton Feldman Essays* op. cit. pp. 180-213
- Fritz, Kurt von 'Die Αρχαί in der griechischen Mathematik' in *Archiv für Begriffsgeschichte* I 1955 pp. 13-103
- Georgiades, Thrasybulos *Nennen und Erklängen: Die Zeit als Logos* posthumously edited by Irmgard Bengen, Vandenhoeck & Ruprecht, Göttingen 1985
- Heidegger, Martin *Unterwegs zur Sprache* Neske, Pfullingen 1959, eighth edition 1986
- Marx, Eduardo *Heidegger und der Ort der Musik* Königshausen & Neumann, Würzburg 1998
- Metzger, Heinz-Klaus and Riehn, Rainer (eds.) *John Cage I and II* Sonderbände *Musik-Konzepte* edition text + kritik, Munich 1990

- Picht, Georg 'Grundlinien einer Philosophie der Musik' in *Wahrheit, Vernunft, Verantwortung: Philosophische Studien* Ernst Klett, Stuttgart, 1969 pp. 408-426
- Schopenhauer, Arthur 'Zur Metaphysik der Musik' in *Die Welt als Wille und Vorstellung II* Zweiter Teilband, Diogenes, Zürich 1977
- Stahl, Gerry 'Attuned to being: Heideggerian music in technological society' in *Boundary 2*, IV(2), 1976 pp. 637-664. Available at <http://gerrystahl.net/publications/interpretations/attuned.htm>
- Staub, Volker *Morton Feldmans Untitled Composition für Cello und Klavier* Feedback Papers 38, Cologne 1992
- Waerden, B.L. van der 'Die Harmonielehre der Pythagoreer' in *Hermes* Vol. 78 1943 pp. 163-199

