

Ulf-Diether Soyka

Symphony No. 3 in Yes Major opus 10/10

"The unplayable one"



- 1 dramatic
- 2 melancholy
- 3 Scherzo, dancing
- 4 Rondo, fast

Composed with financial support from the
Austrian Federal Chancellery / Art and Culture
As well as the Office of the Provincial Government of Lower Austria

Digitally recorded at the
Enharmonic microtonal organ by Hans-André Stamm
at the Prayner Conservatory in Vienna,
and with Minimuse, the micro-interval
U-Plex special keyboard by Andrew Aaron Hunt.

In this composition there are four
different high notes "Es" (E flat, Xes, Yes and Wes),
and any other "chromatic" pitch
in four different heights.

This allows sound systems of ancient music high cultures
(Slendro, Maqam, Shrutis, Blue-Notes and many more)
can be included in the composition and melody.

Ulf-Diether Soyka, born 1954 in Vienna,
is a composer, conductor and lecturer in music theory.
He has composed operas, oratorios, symphonies and instrumental concertos,
Choir and chamber music.

Further information at www.soyka-musik.at

CD cover 2019

Working report and allusions to the tone movement of the Symphony No. 3 in Yes major opus 10/10 ("Die Unspielbare"), as well as hints on options and questions resulting from it:

When getting to know this symphony, it is important to distinguish between two different bases of this music:

On the one hand, the composition is based on the fact that it was possible to select and combine within a much greater abundance of pitches, and that these available pitches have much smaller distances from each other than in classical European music. This results in an enormous abundance of new possibilities - e.g. "strange", "impure", "futuristic", but also (due to the differentiated precision) "much purer" "traditional" tone combinations.

The question as to how in detail which of the minimally different pitches could now interact with other pitches from the extended supply led to the necessity of dealing with the theory of tone setting in a completely new way. Only after suitable, music-theoretically logical and practically applicable models had been found, was it possible for me to work with this wealth of pitches in a targeted manner. In this tone set, the "objective" innovation, an abstract-theoretical basis of the symphony, becomes apparent - a basis that can be equally available to all composers in the world, if they so wish, with the help of which they could also achieve completely different results than I did.

On the other hand, however, this composition is based on the fact that I have chosen tone combinations based on my subjective sound fantasy, my psychological situation, my aesthetic preference, my artistic intentions, etc. - that in doing so I have experienced sensations and created associations that can be shared by other people but do not have to fit for them (let alone be the same for all people).

I ask that these two quite different bases of the present recording be explicitly kept in mind.

If, in addition, detailed thought is given to notation and recording technique, as well as to potential physical performance possibilities, this can be helpful for the next steps of development in musical life.

A recording produced purely digitally with sampled instrumental sounds can be a decision-making aid for potential music organizers, publishers, conductors, etc. - in addition, it can help interested instrumentalists to get to know the composition and, if necessary, to read the notes and practice for a conceivable instrumental performance in the concert hall or wherever else.

Among other things, there are also files in which, for example, the tempo of the individual musical passages can be changed - if, for example, orchestra musicians want to know whether they have mastered the notated pitches exactly enough.

In any case, the most helpful for the future seems to me to be the critical and self-critical listening to this way of composing, which contains so many new possibilities. So to the work report:

Since 2013/14 I have had the opportunity to work on one of my life's goals and after years of painstaking work, I was finally able to complete my Third Symphony in 2019, with financial support from the Cultural Department of the Provincial Government of Lower Austria and the Austrian Federal Chancellery.

When I founded the ensemble "Harmonia nova" in 1982, it was my main concern from the very first concerts to combine music from ancient musical cultures of the world and history with music theoretical and avant-garde research - Japanese Gagaku music, Indian Shrutis, oriental maqams, East Asian slendros, African blue notes, ancient Greek enharmonics, Georgian or Bulgarian sevenths, pure thirds, Pythagorean, midtones, equally tempered, chromatic twelve-tone music, enharmonic, ekmellic micro-intervals, glissandi, emotional nuances and ä.

At that time I knew of a collection of records of the most diverse musical traditions worldwide, which from about 1970 onwards led me to the question of what could be a (music theoretical, perhaps compositional) unifying factor. The CD edition of these historical recordings can be found today at: <https://ich.unesco.org/en/collection-of-traditional-music-00123> . It shows a hint to a driving motive for all my music work since then.

Several different harmonic systems - harmonics, harmonics of bells, gong chords, Alban Berg's twelve-tone cadenza, Hindemith's theory of composition, Messiaen's jazz scales (in just-intonation) - were the starting points for the search for a common basis in composition for ever greater freedom of movement of melodies in their harmonic context.

Hans-André Stamm's Enharmonic Microton Organ with its special keyboard by Martin Vogel (48 pitches per octave) finally offered me a first possibility, starting in 2006, to make recordings of the music I meant with sufficient accuracy.

On the one hand, this keyboard gave me the opportunity to practice listening to the tonal sequences, but on the other hand it also made it possible for listening fellow human beings to describe their concrete impressions and feelings, e.g. by indicating the respective minute in the piece of music. I find the knowledge of listener reaction enormously important, because although I know the feelings I myself have when listening, I need the echo of thinking and compassionate people on two points: On the extended tone setting methodology and music theory by my colleagues and on the subjectively selected concretization in the respective composition.

Therefore, I prefer an exact distinction between the new options of tone setting on the one hand

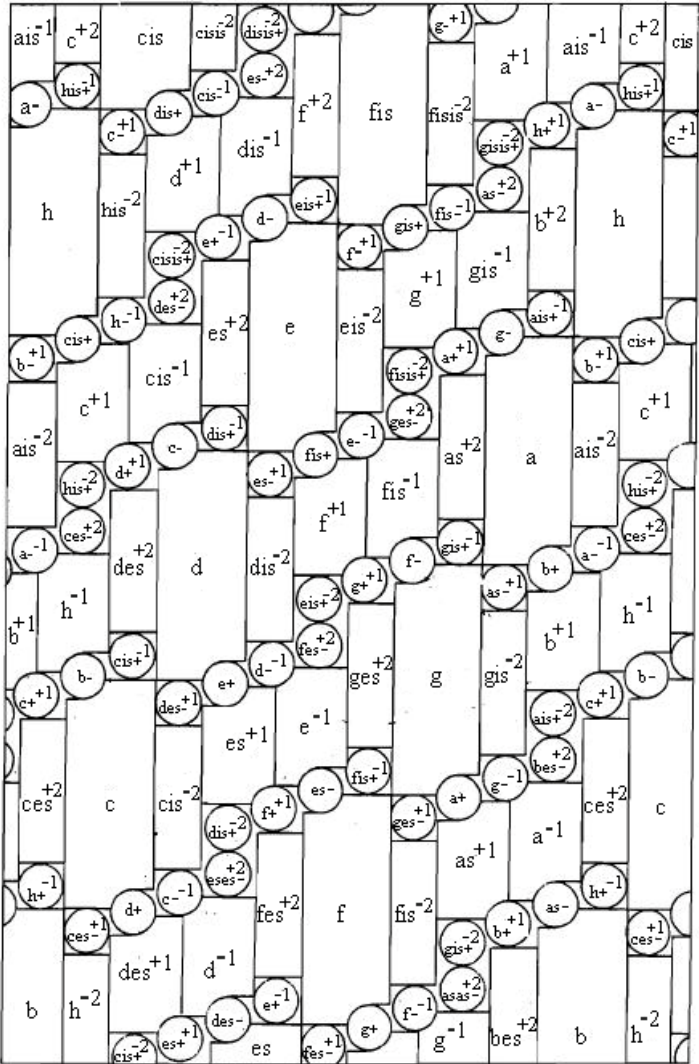
- and on the other hand my subjective application and selection of tone combinations within the possible arrangements of intermediate tones, i.e. to the impression that my special application of these possibilities in this particular composition has on other people: ...to their subjective emotional impressions.

I find it particularly important to know the listening reaction of people who cannot (!) explain to themselves compositionally how the sounding result is achieved. Whether the

echo is different in very different groups of people (disco-goers, classical concert lovers, fellow composers, young people, pupils, even infants etc.) is something I consider to be highly interesting for the composer. I see this knowledge (and self-knowledge) as part of my self-critical responsibility. For I do not advocate this or any other music - I want to open up new paths that can be answered for.



Enharmonic microtonal organ by the composer Hans-André Stamm (1979) in Vienna



Keyboard system: Prof. Martin Vogel, Bonn (1968) in : The Future of Music.



A few examples from hundreds of digitized microtonal scales (avant-garde research and from the world's advanced musical cultures), made digitally audible by Andrew Aaron Hunt:

Name	Size	Modified
turko-arabic_karjigar-bayati_shuri_on_d.scl	246 bytes	13.12.2013
turko-arabic_kurdi_buselik_nishabur_on_d.scl	280 bytes	13.12.2013
turko-arabic_kurdi_on_d.scl	185 bytes	13.12.2013
turko-arabic_nihavend(murassah)_zanjaran_on_c.scl	278 bytes	13.12.2013
turko-arabic_nihavend_and_nihavend-murassah_on_c.scl	263 bytes	13.12.2013
turko-arabic_rast_huseyni_uzzal-garip.scl	297 bytes	13.12.2013
turko-arabic_rast_on_c.scl	197 bytes	13.12.2013
turko-arabic_saba_on_d.scl	267 bytes	13.12.2013
turko-arabic_suznak-navruz_on_c.scl	224 bytes	13.12.2013
turko-arabic_ushshaq-bayati_and_huseyni_on_d.scl	249 bytes	13.12.2013
turko-arabic_uzzal-garip.scl	244 bytes	13.12.2013
two29.scl	781 bytes	11.03.2002
two29a.scl	814 bytes	28.09.2006
twoffths1.scl	956 bytes	20.06.2007
twoffths2.scl	818 bytes	20.06.2007
ultimate12_nr1.scl	224 bytes	13.12.2013
ultimate12_nr2.scl	221 bytes	13.12.2013
ultimate12_nr3.scl	230 bytes	13.12.2013
ultimate12_nr4a.scl	226 bytes	13.12.2013
ultimate12_nr4b.scl	260 bytes	29.01.2014
unimajor.scl	124 bytes	04.03.2011
unimajorpenta.scl	229 bytes	14.08.2013

Scales (*.scl)
Myhill Size: 5 tones

Name	Name
sims2.scl	parizek_xid1.scl
sims_24.scl	parizek_xid2.scl
sims_herf.scl	partch_29.scl
sin.scl	partch_29-av.scl
sinemod8.scl	partch_37.scl
sinemod12.scl	partch_39.scl
singapore.scl	partch_41.scl
singapore_coh.scl	partch_41a.scl
sintemp6.scl	partch_41comb.scl
sintemp6a.scl	partch_43.scl
sintemp_7.scl	partch_43a.scl
sintemp_19.scl	partch-barstow.scl
slen_pel.scl	partch-greek.scl
slen_pel16.scl	partch-grm.scl
slen_pel23.scl	partch-indian.scl
slen_pel_jc.scl	patala.scl
slen_pel_schmidt.scl	paulsmagic.scl
slendro.scl	pelog1.scl
slendro2.scl	pelog2.scl
slendro3.scl	pelog3.scl
slendro4.scl	pelog4.scl
slendro5_1.scl	pelog5.scl

Realer Tonvorrat der enharmonischen Mikroton-Orgel des Komponisten Hans-André Stamm

Erläuterung der Notenschrift

ORGEL-SPEZIALTASTATUR

Reintonal (teils enharmonisch)

Rationalzahlige Proportionen

Tonhöhenunterschiede in Cent:

- ∖∖ = 33,02 Cent tiefer als in der 0-Reihe
- ∖ = 27,16 Cent tiefer, Naturseptim-Töne
- ∖ = 21,5 Cent tiefer, Naturterzen
- o = Pythagoreische Quintenkette
- / = 21,5 Cent höher, Naturterzen-Reihe
- ∕ = 27,16 Cent höher, Naturseptim-Töne
- // = 33,02 Cent höher als Null-Reihe

TRADITIONELLE TASTATUR

12-tönig gleichstufige Oktavteilung

Logarithmische Frequenz-Anordnung

Tonhöhenunterschiede in Cent:

- 2 Reihe 27,37 Cent tiefer
- Reihe 31,18 Cent tiefer
- 1 Reihe 13,69 Cent tiefer
- Null-Reihe Jede Quint ist 1,96 Cent kleiner als in der Nullreihe
- +1 Reihe 13,69 Cent höher
- + Reihe 31,18 Cent höher
- +2-Reihe 27,37 Cent höher

Der Stimmtön a (Null-Reihe-a) ist die in beiden Systemen identische Tonhöhe

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An

enormously practical extension of my recording possibilities I got before

A few years later, the U-Plex keyboard by Adrew Aaron Hunt: "Since then, I have been calling the instrument "Minimuse", because it makes such a fine differentiation of the intermediate tones noticeable and audible. Then I could use Quartertones, too (between E and F e.g.).

U-Plex / Minimuse: keyboard by Andrew Aaron Hunt (USA approx. 2000)



In the 3rd symphony (as on Stamm's keyboard), there are "quadruple each pitch" - e.g. the tone "Wes", "Xes", "Yes" and "E flat" (each of which is a micro-interval pitch variation of "the one traditional tone E flat"): Whether a traditional interval is consonant or dissonant depends on which of the micro-intervals is used. For example, even the "octave" between "Wes 1" and "Yes 2" can be a dissonance.

In the past years I have experimented with this, and have found out exciting connections and interactions by listening. For the Third Symphony, I recorded every single note at least ten times, corrected its timbre, volume and duration, put the melodies together - and found a result that could hardly be more "off-key". Until then, I could only imagine such a range from the most harmonious euphony to the most extreme friction between the pitches - no one has ever had the necessary ear training to perform such music live in concert.

Especially since I have used so many "exotic" instruments in the orchestra - Bansuris, Ney, Duduk, Shehnai, Tulum, Kalimba, Kaval, Gongs, Kora, Tanpura, Oud and many more.

This is why the Symphony No. 3 opus 10/10 in Yes major is nicknamed "The unplayable".

This is an example of how "one and the same" chord has a different effect as soon as the chromatic possibilities are expanded in just-intonation - and microtonally:

<p>Akkord 1</p> <p>Hypothet. Grundton C₂^o</p>	<p>Konsonanzgrad:</p> <p>KG 55</p>
<p>Akkord 2</p> <p>Hypothet. Grundton C₉</p>	<p>KG 99</p>
<p>Akkord 3</p> <p>Hypothet. Grundton A₁₅⁺¹</p> <p>... ..</p>	<p>KG 140</p>

The symphony has four movements (comparable to the four temperaments, aggregate states, etc.): a dramatic, a melancholic-mystical, a scherzo and a fairy-tale-like fast rondo. The music is full of surprising mood changes between European and foreign tonal languages, full of wit and self-irony.

The "extended musical grammar" discovered in the "intermediate tones" enables the representation of aporias, acoustic illusions and refractions, language changes, of as-ifs and misunderstandings, with a rapid or delayed change of perspective and paradigm, for example, but also in multi-perspective, it brings unreal hypotheses and futuristic conjunctions up to the most modern label fraud. This makes it very suitable for developing tragic, cynical, sarcastic and comic moments.

During my studies with Friedrich Cerha at the Vienna University of Music I dreamed of such fantastic possibilities already in my first composition. Today I am infinitely relieved that I am really still allowed to participate in this highly sensitive musical future development.

Where new options arise, exciting questions must also be rethought:

For example, regarding copyright law: Who "owns" the "beginning of the Danube Waltz" when I bring the second melody tone (traditionally the "third tone") "by 1/4 tone too high" ? Or as "neutral third" (between major and minor) ? Should I forgo royalties for this composition, for example ?

Does this open up completely new fields of work and challenges for the copyright ?

What happens in the concert hall when I accompany the "oriental" neutral third with "Alpine" yodel triads ?

Or when I seemingly mix or combine venerable sacred melodies of foreign musical traditions ?

I notice how this music affects myself - but on other people ?

Or is the result rather audio art than music ?

And the next step ? Intercultural-interreligious composition ? Inculturation, integration or inclusion ? With texts in, say, twenty original languages ? If I were to work on this, I would certainly need advice from wise people, probably from all these very different cultural and religious traditions. Especially when I don't know whether a micro-interval tone sequence "invented by me" might have existed long ago in some "primitive" tradition ?

A gateway to infinitely different possibilities is opened by the method of composing notes, which I developed further in the 3rd symphony:

Writing a music theory textbook about it would be relatively easy, but would again cause very special consequences and questions (university study curricula, new types of courses, notation, aural testing methods, etc.).

Or a reawakening of the ensemble "Harmonia nova": this could enable practical rehearsal work and new experiences in mastering the special notation - but on the other hand it would also revive the interpersonal discussions of the time: "world music" between "avant-garde" and "classical", etc., cultural politics between "freedom of art" and "traditional definitions of beauty", etc.

A personal note: I consider the freedom of art to be an indispensable prerequisite for love - and music may well have a loving (e.g. harmonious) effect on hearing people.

Something about the individual movements:

1st movement, dramatic

Two-half-beat measure continuously, at the beginning tempo MM = 60, already the second and third notes of the clarinet main voice seem (traditionally rated) "wrong" ("too high"), the half step in the celesta "too small". This gives a gentle impulse for the whole following development - comparable to a small child singing "so heartily awkward". On the other hand, however, it is a very serious theme in actually classical form and harmonic sequence, which is later also solemnly (but "also intoned in addition") performed by the brass players. The tone of the main voice in bar 14 is particularly momentous - its origin can be reported anecdotally: There is a small switching error on the enharmonic microtonal organ (probably the soldered joints of two keys were mixed up here). As a result, when trying out the melody for the first time, not the natural seventh tone in the upper voice (about 30 cents lower than on the piano) sounded, but a tone that was just as "too far off". I felt the expression of the resulting tone sequence emotionally as somehow "outraged", and as also very consequential for the composition. At first I tried to "correct" the pitch (e.g. "note it down and intonate it correctly as a natural seventh overtone") - but then I internally accepted the special effect ("wrong instead of right"). I had often experienced my fingers as "more intelligent" than my original theoretical compositional concept when trying out ideas. This way of working has also proven itself later in many subsequent ideas. Often I analyzed only afterwards (on the basis of the notation), what I had composed quasi unconsciously. - With the use of the Tuned Bells in bar 14, the quasi "intercultural interaction" begins: instead of (e.g.) forming "Southeast Asian" chords, here "Blue Notes" are brought by the "instrument unsuitable for this". In bar 25, consistent micro chromaticism brings the cellos as counterpoint for the first time. The great freedom of the pitch sequence is, however, clearly harmonically bound up

with the metric emphasis. I myself feel an increase in tension here, which consistently leads to the violent outburst of the brass. The (ametrical) imitations of Tuned Bells and Celesta over micro-intervallic, iridescent seventh chords in the soft strings seem almost "idyllic". In bar 68 the strings take over the first main theme, from bar 97 on the brass instruments heat up the mood again. This marks the beginning of the development of the middle section, in which Alban Berg's twelve-tone cadence causes a permanent increase in tension. Only after this "developmental part" does the "third theme" appear for the first time, which will then dominate the end of the first movement - together with the "wind chorale" of the first theme - after the fugato beginning in bar 234 and the shorter return of the "idyllic" theme (from bar 302). The stretto conclusion of the first movement shows rather abruptly how many and great potentials have virtually disappeared in the previously achieved illusory harmony. But here it is not yet possible to answer directly. A very "classical" listener has summarized this sentence for herself as "Power of Life". A younger chart and DJ listener was missing the beat in this music, he felt the middle part of the first movement to be "chaos, as if many school children were trying out some instruments", a folk music lover felt the music to be dissonant (these two stopped listening before the end of the movement). A teacher, again, found precisely this enormously complex and discursive middle section to be the most important and, for him, subjectively most appealing part of the first movement. An editor appreciated the abundance of imaginative ideas and the strange self-irony of this music (also in the further movements).

2nd movement, melancholy

The music begins as "cloudy" and this hint ends resignedly questioning. The "answer" to this is only apparently one: In 6/8 time, a quasi-Baroque melody emerges - but it is a Baroque of the present, strange in timbre and "deviating" pitches. This apparent harmony is again interrupted by the brass. After the second "baroque" approach (bar 176), bansuri, tanpura and strings trigger an idea that will increasingly shape the development of music here, in its ever more infinite longing and sensitivity. The solo viola brings a warming, highly emotional theme from bar 205 onwards, the consequences of which can only finally be perceived in the fourth movement. But I have never been able to hear the further development up to the end of the movement without bursting into tears - every time. The music floats ever more luringly up and out into almost otherworldly realms - after all, it will end even more incomprehensibly than the second movement began: The feelings become so boundless and nameless that nothing can be grasped. There is no trace of melancholy here, only indescribable, perplexing amazement. - A "classical" listener has summarized this sentence for herself as "Mystic of Life". In both the first and especially in the second movement, a friend of hers listened to tormented cries of a tormented soul - she too sobbed at the end of this movement.

3rd movement, scherzo, dance-like

Some listeners hardly notice that the rapid pitch repetitions of the first motifs and themes are actually micro-interval variations: The successive pitches are not the same, but minimally different. Apparently, the audience is used to this phenomenon, also from classical music, and listens here particularly intensively "rightly". Scherzo is a description of character: if each movement of this symphony makes a psychological temperament of the quasi classical tradition appear, then the sequence "Scherzo - Trio - Scherzo" in this symphony lends itself

to a very special micro-interval development, which most listeners will hardly be aware of: The Scherzo begins and ends in B flat major (which, at the end of the trio, seems like a dominant key). This logically leads to the beginning of the trio in E flat major. Within the trio, however, the themes and motifs are transposed a little higher again and again - but not in half-tone intervals, but in much smaller intervals, and therefore a few times more often - until they finally reach F major (which is now the dominant to B flat major). This leads quite logically to a reprise of the Scherzo. In this, the instruments of the main melodies are, so to speak, "interchanged": wherever a "European" instrument played the main motif in the first scherzo section, an "exotic" instrument gets the same theme or motif in the scherzo recapitulation - and vice versa. There is one more hint concerning the rhythm in the trio: The 5/8 time is clearly audible in the scherzo, and the trio is also played in the (faster) 5/8 time. But in the trio the 5/8 rhythm is "masked": Here the fast 5/8 accompaniment (kora) remains equally effective, but the strings play an apparent (rhythmically slightly distorted) waltz accompaniment in syncopation - that is music from Austria: one could dance to it, but perhaps only with a limp? Further "jokes" in the instrumentation, or in the "detuned octave sequences" are only briefly mentioned here. The movement is really a smiling joke. - A "classical" listener has summarized this movement for herself as "Joy of Life". The 5/8 rhythm of this movement prevented a listener from "resonating" or "sympathizing". A listener felt exactly this phenomenon as a self-ironic distance to the hoped-for themes, as a joking ambiguity.

4th movement, Rondo, fast

A slow introduction at first gently reminds one of the earlier brass outbursts. This is followed by a quietly beginning narrow lead-in of a chorale melody in untypical instruments, accompanied by an accelerating string tapestry (for which a particularly large number of individual notes had to be recorded and combined at the highest tempo). These string sounds are created as microchromatic passages between short, multi-step chordal dissections from bar 25. A string quintet accompanied by Duduk and Bansuris with several Ekmellic chordal variations leads from bar 41 to the main theme and chorus in bar 77. This is actually a more energetic, quasi classical variant of the main theme from the first movement. This time, however, a micro-interval, micro-chromatically rising overtone develops to the syncopated rhythm (from bar 93). This results logically from partial tones above the quite traditional classical chord progressions. In bar 125 begins a Couplet with Tuned Bells and micro-intervallic modulating chord sequences. The subsequent repeated ritornello is followed (m. 205) by a theme that seems to be inspired by traditional Japanese gagaku music: a slowly rising imitation of piccolo and bansuri is apparently irregularly interrupted by absurd-looking markings of the bass drum, soon joined by a horizontal, shortening repeated chord (partial tones 7 - 12) above the organ point B (YB) and ever faster "South American polyrhythmic" motivic sequences. As soon as the corresponding tempo and the highest pitches are reached, the "classical" ritornello theme suddenly appears again (with its likewise microchromatically rising over-voice). After a brief reminiscence of the gong theme and the organ point, the conclusion is reached in Yes major. Although this movement is no longer a scherzo, it apparently encourages the listener to smile and laugh in many places, due to a certain "absurdity" in the combination of the musical ideas. A classical listener has summarized this movement for herself by calling it "Coming Home"; she found the movement a coherent clarification of the musical situation of the symphony. Another listener perceived the use of the bass drum in the last movement as real beats, and the

movement as a whole as tragic. While listening to the complete symphony, I myself felt like an exciting, extremely varied way out of an enormously tangled initial situation - and after listening to the last bars, the reassuring feeling: "Yes, life can go on like this".

Critical and self-critical references:

Perhaps the most self-critical remark about the symphony is the hint that about four years before its completion I had sketched a completely different final movement (main voice, accompanying sounds etc. as well as the form sequence were already determined, the 4th movement would have had a kind of varied counterbar form). I had to put this sketch away for biographical and professional reasons, and in the meantime I found out new possible connections (e.g. between main voice and accompaniment). When it became possible for me to complete the symphony, I decided to use these new possibilities: The rondo theme of the final movement is a faster variant of the main theme from the first movement - combined with a logical micro-interval continuation, by which the end of the movement (the end of the symphony) could be reached at all. This resulted in a kind of rondo form for the final movement almost "automatically", so that this final movement could also appear more relaxed. A pleasant side effect of the (quasi) rondo form was that I could work on it more quickly, a psychologically urgent wish for me, because after completion I had long since wanted to write completely different compositions, because the financial backers expected the score to be handed in on time - and thus not only physically but also mentally enabled me to continue working after all, after about seven years.

A very important hint (which is inseparably connected with the previous one) is the following: For example, I continued to use "only" 48 pitches per octave when digitally recording the pitches, although I could have intonated more precisely with the U-Plex Minimuse long ago. And this renunciation of long existing new possibilities blocked my working attitude, at least for a while.

In terms of the uniformity of the work of art, however, this approach seemed to me to be the appropriate one. But there is also a real disadvantage: The enharmonic equation of the natural seventh C-B with the interval C-AIS, whereby this A sharp arises as a natural ore above a F sharp, which itself is a natural ore above the D, and the D resulted from the second pure fifth above the C: From this equation of two pitches, which are slightly different in themselves, follows a certain impurity of the harmonic third (the problem is less noticeable with the minor seventh). I could have corrected this from the 3rd movement on - but I deliberately refrained from doing so in order to finish the symphony as it had been begun.

A further problem arises when listening to the symphony, mainly due to my decision which size of the third interval I recorded. In slow chords, the harmonic third 4:5 or 5:6 is usually felt to be the more appropriate, especially in final triads (major or minor):

But if the melody part moves faster (a borderline case can be found there, for example, in the "string quartet" section of the 4th movement), then the harmonic major third (which fits in the harmony) appears melodically as a "too low leading note" to the next chromatic note (e.g. b to c, or e to f).

An orchestra would "instinctively" correct the pitch (and play the leading note b higher). But not the microtonal organ, especially if I have explicitly noted the smaller Big Third interval with the frequency ratio 4:5 (64:80) instead of, for example, prescribing the Pythagorean Big Third interval 64:81 (or an even larger micro-interval organ).

This means: I could have slightly changed many passages of the composition (with the minimuse and with certain changes in the notation) for some years now. This would perhaps make it more catchy and familiar to the listener.

Nevertheless I decided against it - and thus perhaps for a future, much more complicated work (with e.g. more differentiated notation). For I have always avoided "touching up" my compositions, but have always preferred to apply the new knowledge in a later composition.

Whether or how precisely the notated instruments can play the respective micro-interval pitch exactly at all is a question that was not asked at all for this recording. But if the instruments were to be mechanically reconstructed for this purpose, their timbre would change. So the symphony cannot be performed purely physically with this method.

The phenomenon of the decaying processes had to be dealt with anew for each individual tone. First of all, it is momentous that the sampled instrument tones use two apparently different methods of reproduction in the Mixcraft/Kontakt program: When the key is pressed, some instrument sounds (especially organ, but also string orchestras etc.) continue to be played as long as the key is pressed - others (e.g. clarinet etc.) stop playing, although the key is still pressed (after the length of time that the performing musician has been able to hold his breath) - others (bowed solo double bass and string orchestra etc.) stop playing, although the key is still pressed by itself (after the length of time that the performing musician has been able to hold his breath) - and others (bowed solo double bass and string orchestra etc.) stop playing. a.) the sounding tone remains audible even without an automatic end, but you can hear the change of bow stroke direction in between, i.e. subtle changes in timbre, which often have nothing to do with the tempo of the music.

From these digital specifications, different challenges (and the fact that these were not always ideally manageable is unmistakable in many places in the recording) followed at the end of the respective tone when recording the symphony:

The easiest way to achieve this was usually the impressions of legato and portato, since here the end of one tone is quasi masked and overlaid by the beginning of the next tone. Often it was sufficient to let the next tone start with exactly the same volume (but where the next tone was to be accentuated, for example, the volume curve had to be digitally redesigned in the first fractions of a second of its sounding - first the same volume, then immediately louder, but not too suddenly).

But where a tone was to be followed by a clear pause, the question arose as to how the tone should end (in order to sound "still quasi natural"): In thousands of places this was only possible by reducing the volume in the last fractions of a second - in half of these cases in a multi-stage process, a linear or abrupt reduction of the dynamics would very often have been disturbing for the overall impression.

The natural decay of the instrument is therefore only heard in very few cases in this recording - perhaps in less than one per thousand of the tones overall. Sensitive listeners notice this (and do not find it appropriate at every moment).

If someone would like to work on corrections in this respect, the original files of each tone would have to be selected from the Mixcraft archive again and adapted - it would only be sufficient in very few places to correct the already polyphonically composed form sections afterwards.

Another problem arises with the tempo: In order to make sure that the individually recorded tones of the respective instrument can later sound simultaneously with the finished melody of the other instruments (as it is noted and intended), I used the metronome while recording. From this it follows that the tempo of the recordings is quite rigid almost everywhere - there is a lively tempo-rubato in the recording only in a few (even more laboriously produced) moments. I would like to hear this myself the way the music came to my mind, the emotions would become much clearer and more comprehensible when changing the heartbeat tempo. I'm just tired at the moment, always working on the same composition for years. And sometimes I can't even remember in which exact tempo nuance an idea originally came into my imagination.

To clarify the tempo appropriately for each passage will therefore remain a mystery forever - which is perhaps a good thing, because the reverberation duration will create very different conditions in each spatial performance. I don't know of any ideal performance space for this music. The headphones are not ideal either, because the frequencies affect almost only the ears, but not the whole body.

A further problem is that with the precision of the notation, the freedom of intonation of human performers is fundamentally much more restricted, in favour of greater freedom of development when composing - up to the point of completely switching off a living orchestra on this CD.

If the situation of the hearing human being is considered, then with this number of different pitches, the phenomenon of "listening in" works in a partly different way than in traditional chromatic-diatonic music:

Basically, at first hearing it is never clear whether the pitch heard is also the pitch originally intended. In traditional diatonic music, tones whose frequencies deviate slightly from the known scales and chords are reinterpreted in the listening sound fantasy (correctly, "this slightly different frequency would actually have been the intended pitch"). The ability to interpret correctly is one of the basic prerequisites for perceiving and classifying incomplete or unclear information.

Now, with the digitally stored symphony, the hearing does not have this possibility in the usual way: Every pitch is the intended pitch. Nevertheless, traditional listeners reinterpret the pitches in countless places, whereby they "simplify" the context of certain melodies or certain sounds.

With certain other tone sequences or contexts, however, they do not have this chance or task - because the structure of the sound is too ambiguous, too incoherent, too polyphonic, or too far away from classical models.

In some cases, the symphony was deliberately played with such hardly audible structural moments - one could, for example, test whether all listeners were listening correctly, or which subjectively assumed ('correcting') objective they had.

The "melody or chord components" which sometimes sound so "weird" then have the same effect on traditional hearing people as the "sweet intonation attempts of a small child who is not yet able to hit the pitches exactly", or they seem "like foreign musical traditions" (and can therefore arouse all kinds of emotions up to rejection or special curiosity). In some cases they seem to be subliminal in a conversation, where in any case emotional messages are revealed, in addition to the factual content of the meaning of the words communicated, quasi "overtones" or "undertones", which are not classified as parts of a traditional pitch order when speaking or in rap. Especially the so-called "deviation" can thus become the central message.

Where the limits are, from which certain people no longer 'hear right' a new micro-interval structure, or from which extent of similarities other people begin to "hear right" (which should actually be called "hearing right" from then on): these processes of differentiation and correction will probably be effective differently from person to person and from musical tradition to musical tradition.

Listening to the right way is not the only relevant phenomenon, but there is also a right way of sounding together, which (similar to the transient process of the beginning single tone with its harmonic partial tones within fractions of a second) can change the impression of a "chord" during its sounding, although nothing has been changed in the notation of the music. This phenomenon of oscillation occurs automatically between (e.g.) organ pipes in the case of chordal tones, and in the case of choirs through practice processes (listening to each other). And the question arises as to whether and how this phenomenon also occurs in a comparable way when digitally stored sound frequencies are heard in loudspeaker systems, headphones, radio sets and their spatial surroundings (air molecules).

It could be, for example, that certain intended micro-interval combinations are so strongly influenced by resonance phenomena and by Brownian molecular motion that the sounding result might not correspond to the one recorded. It may therefore have been "necessary" for the digital recording of the symphony to raise the volume of some tones (so that they can be heard at all).

U.-D.S.

WE-Transfer Symphony in Yes Major by Ulf-Diether Soyka: <https://we.tl/t-Jh4y6JjG5u>

