

The Dialectics of Gerd Kühr's *Corona-Meditation*: An Analytical Essay

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I would like to thank Gerd Kühr for supporting me in my research by sparing his precious time to provide valuable insights into his Corona-Meditation. Furthermore, I would like to thank Jonas Traudes and Christina Lessiak for providing lucid comments on draft versions of this article and Verena Borecký for English language editing. Finally, Justin Winkler deserves gratitude for inviting me to his radio show Traumarsenal (episode 10, broadcast on June 8, 2020, on Radio Helsinki 92,6 MHz, archived at <https://cba.fro.at/456141>) to comment on the Corona-Mediation. This invitation sparked the idea for writing the present article.



Abstract

Gerd Kühr's *Corona-Meditation* premiered on April 30, 2020, in a transnational online performance with more than 50 musicians, hosted by the Graz-based music festival *Styriarte*. The piece, written for a variable and unlimited number of pianists, is a creative response by Kühr to the social and cultural consequences of the measures implemented in Austria and other countries to fight the COVID-19 pandemic. This essay is a critical musicological encounter with this composition. It aims at providing a close analytical, emically informed, and historically contextualized understanding of the *Corona-Meditation*'s multi-faceted character, thereby contributing a detailed case study on the impact of the pandemic on musical creativity to the expanding scholarly discourse of "COVID-19 musicology." In this regard, the essay also seizes an opportunity to expand this discourse beyond the present prevalence of social-scientific and psychological viewpoints by employing approaches more germane to the humanities, especially critical and reflexive engagement with the details and particularities of individual cultural artifacts. The essay's trajectory begins with an account of the genesis and premiere of the *Corona-Meditation*, which provides the contextual backdrop for the following music-analytical engagement with the piece. After a section describing the methodological and theoretical frame, a series of salient structural and processual features of the composition is considered in musical analysis. Drawing on comments by Kühr on the compositional design of the *Corona-Meditation* and considering different actual performances and potential realizations, these investigations move through the macro-, meso-, and microlevels of the piece and are linked in their analytical narrative by a recurrent guiding metaphor of "dialectics."

Introduction

[1] The COVID-19 pandemic and the fight against it have had a fundamental impact on musical life throughout the world. Possibilities for live offline performance and even rehearsals have been drastically confined throughout extended periods, with serious cultural, social, and economic consequences for societies as a whole and the individuals that constitute them. The magnitude and full ramifications of these consequences are yet to be ascertained. Confronted with these consequences, musicians (and other cultural workers in the field of music) have tried to actively cope and engage with the situation caused by the pandemic. Streaming events, simple video recordings of solo performances, and more elaborately constructed split-screen videos of ensembles from all varieties of genres have become ubiquitous. Another response is numerous songs written and recorded by musicians across the world that deal in one way or another with COVID-19: songs intended to lift the spirits of those hit by the crisis, songs educating about hygiene measures, songs criticizing official reactions to the pandemic, and so on.

In the case of the composer Gerd Kühr (* 1952), the pandemic and the socio-cultural effects of the measures implemented in containing it have inspired him to write an unusual piano piece—the *Corona-Meditation*. This essay is a critical musicological encounter with this composition. It aims at providing a close analytical, emically informed, and historically contextualized understanding of the *Corona-Meditation*'s multi-faceted character. As a result of this encounter, the essay contributes a detailed case study on the impact of the pandemic on musical creativity to the growing scholarly discourse of "COVID-19 musicology."^[1] In this regard, the essay also seizes an opportunity to expand this discourse beyond the present prevalence of social-scientific and psychological viewpoints by employing approaches more germane to the humanities, especially critical and reflexive engagement with the details and particularities of individual cultural artifacts. However, despite the indisputable relevance of the COVID-19 pandemic as a factor to be acknowledged in this engagement, it is also mandatory in such an approach to avoid overly constrained or reductive readings of the *Corona-Meditation* that see it only in light of the pandemic, miss features of the piece eluding this specific interpretative horizon, and thereby effectively over-interpret the influence of COVID-19 on creativity and cultural expression. The aim of the present essay is rather to understand the *Corona-Meditation* as a product of the pandemic as much as an artifact poietically and aesthetically transcending this historical context of origin.

The essay's trajectory begins with an account of the genesis and premiere of the *Corona-Meditation*, which provides the contextual backdrop for the following music-analytical engagement with the piece. After a section describing the methodological and theoretical frame, a series of salient structural and processual features of the composition are considered in musical analysis. Drawing on comments by Kühr on the compositional design of the *Corona-Meditation*, these investigations move through the macro-, meso-, and microlevels of the piece and are linked in their analytical narrative by a recurrent guiding metaphor of "dialectics," which will be explicated below.

The *Corona-Meditation* exists in several versions.^[2] Throughout this essay, the discussion focuses primarily on the multi-piano version premiered on April 30, 2020. While the aim in analysis is to gain insights into poietic and aesthetic issues of this version of the piece in general, that is, independently of any specific performance, it will become clear that the piece resists both reduction to its score and reification thereof.^[3] Acknowledging the performatively fluid character of the composition, the two renditions presented at the premiere also form an important point of

reference, as do hypothetical performances.

The analysis will mostly consider the *Corona-Meditation* as a piece intended for temporally finite performance with a beginning and an end, such as at the premiere. But Kühr has also proposed perpetual performance as the ultimate and ideal way of realizing the piece. This alternative mode of performance will be discussed in the final section of the analysis.

The Genesis and Premiere of the *Corona-Meditation*

In the days following March 10, 2020, the Austrian government announced a series of measures intended to contain the spread of the SARS-CoV-2 virus among the Austrian population. Encompassing, among other things, far-reaching restrictions on access to public spaces, bans on public and private events and in-person teaching at schools and universities, as well as the closure of most shops' physical vending spaces, these measures amounted to what has been referred to as a "lockdown." In turn, direct social intercourse and public cultural life were reduced to a minimum. The measures were gradually lifted after the Easter holidays in mid-April, but cultural events like concerts or theater performances were not allowed until the end of May. Even then, such events were subject to statutory requirements which either rendered them infeasible in many venues or drastically transformed their accustomed appearance.

Amidst these developments, the composer and conductor Gerd Kühr returned from his flat in Berlin to his house near Graz, entering the required fourteen-day home quarantine while still hoping to conduct several planned concerts in April with the Graz-based orchestra *recreation*.^[4] These concerts, however, would soon be canceled. Early into his quarantine, during a break from working on his upcoming opera *Paradiese*, he started to think about the situation people found themselves in during the current lockdown:

Apparently, there really is an unbelievable number of people at home right now, much more than usual, even during the day, during the working week, et cetera. What are they doing? They have more time, they probably also have time to think, to reflect on how their whole life has changed or on the uncertain prospect of how things will continue; and at the same time, as a musician, it was obvious to think quite optimistically: time for *Hausmusik*.^[5]

From this sprang the idea of composing a piece that combines these two thoughts about life in lockdown: a reflexive, contemplative, or meditative attitude and *Hausmusik*, in the sense of private music-making with friends or family members. The fact that *Hausmusik* is an intrinsically social activity and the limitations of congregating in a private space led Kühr directly to the idea of introducing another pervasive aspect of life in lockdown into the conceptual framework: interaction via internet.^[6]

Elaborating on these ideas, Kühr drew up a compositional concept: He would write a piano piece in a meditative mood which should be of modest technical demand in order to facilitate participation by amateur pianists.^[7] The piece should embrace and accommodate both the inevitable temporal latency caused by interaction via internet and the likelihood of musicians playing on pianos that are tuned to different concert pitches. There should be a distinctive tonal frame, but the piece should also employ all twelve chromatic pitch classes; and it should be possible to perceive the result as beautiful.

[2] Kühr intended to gradually translate this concept into a proper composition as a recreational activity alongside his work on the opera and without the pressure of a deadline. He has repeatedly referred to this initial concept by using chess metaphors, likening it, for example, to “an interesting game of chess” (“eine interessante Schachpartie”), but has also described it as “a fun composition assignment” (“eine lustige Tonsatzaufgabe”),^[8] comparing the concept’s execution to “doing counterpoint, writing fugues,” something that he “always loved” (“Kontrapunkt gemacht, Fugen geschrieben, also ich hab das immer schon geliebt”).^[9] However, only one or two days after his first consideration of such a piano piece, he talked to Mathis Huber on the telephone. Huber is the managing director of Steirische Kulturveranstaltungen GmbH, the company behind both the orchestra *recreation* and the festival *Styriarte*. Kühr mentioned his compositional idea to Huber, who was captivated. Huber offered that *Styriarte* would premiere the piece in an online event, as long as Kühr was to finish it soon. Kühr agreed to deliver the score and worked intensively on the piece for one week, testing out different solutions to his compositional problem both “on paper” and at the piano, creating a solo version and versions with written-out parts for two or five pianos. After this week, the basic structure of a piano piece for a variable and unlimited number of performers was set. The piece would be called *Corona-Meditation*, which was an early working title that stuck. By mid-April, the final score and the accompanying instructions were available to the pianists performing at the premiere. A joint rehearsal was held the night before the premiere.

The premiere took place as a streaming event on April 30, 2020, starting at the symbolic time of 20:20 (8:20 p.m.).^[10] Virtual tickets were sold at different rates, with the proceeds going to a relief fund for *Styriarte*-associated artists suffering economically from the official ban on concerts. The *Corona-Meditation* was presented twice in different versions: The first version was performed by Olga Chepovetsky and Philipp Scheucher. Chepovetsky was situated at the *Styriarte* headquarters, the representative baroque environment of Palais Attems in Graz. Her performance on grand piano was professionally recorded and livestreamed to Scheucher in Hannover, who played on an upright piano in his living room, where he also recorded his performance with semi-professional equipment and livestreamed it to Graz. For the internet audience, the two streams were mixed together by *Styriarte*’s sound engineers. On the second version, Chepovetsky and Scheucher were joined by almost fifty further pianists and also one guitarist,^[11] most of whom had a professional background in music but not in all cases as concert pianists. These musicians had been recruited by *Styriarte*, some of them via a public call for participation. They contributed their performances from different places in Europe and the USA via the software *Zoom*, which had by then emerged as the dominant videoconferencing tool.^[12]

The premiere was generally well received by critics,^[13] and there is evidence of sustained interest in the piece by musicians. Some of the participants of the premiere have revisited the *Corona-Meditation* in other contexts: Kühr told me that Miroslav Lončar, the guitarist partaking in the premiere, has asked for permission to write an arrangement of the piece for guitars, and that the pianist Janna Polyzoides, who was also part of the premiere, intended to use it in her master class at the *Internationale Musiktage Bad Leonfelden* (July 19 to August 1, 2020).^[14] The Anderson & Roe Piano Duo, further participants in the premiere, not only performed the *Corona-Meditation* in the virtual recital series of *Portland Piano International* (August 16 to August 17, 2020) but also created a cocktail named after the piece.^[15] Additionally, there are some performance videos on YouTube by musicians who did not participate in the premiere, among them one of Lydia Maria Bader playing the solo piano version.^[16]

Methodology and Theoretical Frame

My analytical approach in the following investigation of the *Corona-Meditation* is informed by several methodological considerations. To begin with, I follow David Lewin in distinguishing conceptually between music theory and music analysis.^[17] In this sense, this article is emphatically an *analytical* study insofar as I am interested “in the individuality of the specific piece of music under study,”^[18] but not in the verification or refutation of existing overarching music theories or in the development of such new theories. Instead of rigorously applying preexisting, historically and culturally somewhat abstract theoretical systems like pitch-class set analysis, I approach analysis in this article from an ethnomusicological perspective,^[19] to the extent that I seek to ground my study of the *Corona-Meditation* in emic concepts and notions expressed by Kühr in discussing the piece. The source materials from which I derive this emic grounding are not only published media interviews Kühr gave in the context of the piece’s premiere but especially a qualitative expert interview that I was able to conduct with him on September 2, 2020. These sources are complemented by further personal communication with the composer via email and an extended phone conversation about a draft version of this article.

Thus, while my analytical approach is “non-theoretical” in the above-described way, theoretical and poietic ideas drawn from Kühr’s comments on the piece certainly play a role in my analysis; but as will become clear below, many of these pertinent ideas turned out to be systematically and historically hybrid, while others have to be considered individual and work-specific, not directly grounded in any larger music-theoretical traditions. Building an analysis for the sake of stringency on one clearly defined theoretical system would therefore have run the danger of artistically insensitive scientific rigor, as much as trying to derive mid- or long-range music theories from such a case-specific analysis alone would have been a presumptuous generalization.

[3] Related to my analytical interest in the specifics of a given piece is the premise—developed by Kofi Agawu, among others—that music analysis is a performative, creative, non-cumulative, and in principle open-ended way of engaging with music, so that every instance of analysis has an essentially individual and provisional character.^[20] I relate this understanding of analysis to the proposition that, in John Rink’s words, “musical materials do not in themselves constitute structure(s): they *afford* the inference of structural relationships,” that, furthermore, “inference of this kind will be individually and uniquely carried out whenever it is attempted, even if shared criteria result in commonalities between discrete structural representations,” and that, finally, “musical structure should therefore be seen as constructed, not immanent; as pluralistic, not singular.”^[21] In this respect, this article is an attempt at making the specific inferences of my analytical encounter with the *Corona-Meditation* intersubjectively relatable. The argument is presented in a manner as credible, rational, and transparent as possible, but no claim is made—or could be made—to exclusive interpretive authority.

My analytical readings are linked by a guiding metaphor of *dialectics*. I say metaphor, because I approach the *Corona-Meditation* in the spirit of dialectical thinking, without presuming a consistent dialectical worldview, be it idealist or materialist in style. I especially draw inspiration from the interpretation of dialectics developed by Karl Marx and Frederick Engels.^[22] Their fundamental assumption, retained from earlier dialectical philosophers, “that the world is not to be comprehended as a complex of ready-made things, but as a complex of processes, in which the apparently stable things ... go through uninterrupted change of coming into being and passing away”^[23] recommends Marx and Engels’s theory of dialectics as a fruitful stance for

understanding an essentially fluid and polymorphous piece like the *Corona-Meditation*. I am accordingly interested in the way in which the *Corona-Meditation* is characterized by pervasive dynamics of interpenetrating opposites and employs dialectical notions like the negation of the negation, sublation (in the dual sense of being abolished while also being preserved, yet in a transformed way), or the transformation of quantity into quality as ways to comprehend how these oppositional dynamics afford (intra-)musical meaning.^[24]

Two Modes of Performance

Before delving into closer analytical scrutiny of the *Corona-Meditation*, it is necessary to distinguish between two possible modes of performing the piece: the first is temporally finite, the second perpetual. The first mode is enacted whenever any number of musicians sit down to perform one of the versions of the score within a limited period of time.^[25] The performances at the premiere are two examples of this mode. Though it will become clear that such a performance of the piece can take very different guises, it nevertheless starts at one point and ends at another, with some kind of finite musical development in between.

The second mode is currently a mere ideal envisioned by Kühr:

An essential part of my initial idea was to imagine that this piece could be put on the internet and that it could be accessed at any time of day or night. And that means that it can be played twenty-four hours a day, seven days a week, etc. through the different time zones, because musicians living in different time zones can always join in. That is actually my dream, a perpetuum mobile that moves around the globe That would be my ideal; and seemingly without end for us.^[26]

Though this idea has a certain utopian—though not impossible—quality to it, it should be noted that Kühr has referred to this mode of performance as his “primary intention” (“primäre Intention”).^[27] Nevertheless, my analysis will initially be based on the assumption that the piece is performed in the more conventional, finite way—the way in which the piece is presented in the score and has hitherto been performed. At the end of this essay, I will turn to the second mode and consider the structural and processual differences between perpetual and finite performance.

Beginning and End

Before and after any finite musical performance—be it a rendering of a precomposed piece or an improvisation—there is necessarily a period in which there is no performance. This is a practical matter that usually does not need special mention. At the very beginning and very end of the *Corona-Meditation*, however, Kühr writes one measure featuring a whole rest with fermata. As “corona” is a synonym of “fermata,” and as Kühr intended this play on words, the two measures at the beginning and end will henceforth—and in line with Kühr’s parlance—be referred to as “corona measures.” Is there a significance of these measures in the context of the piece beyond a musical pun?

An answer lies in the designation of the piece as a meditation. The concept of “meditation” is of course equivocal:^[28] it may, especially in the tradition of Christian devotion, mean the immersive contemplation of an object of religion (or more generally of metaphysics, nature, or art). It may

also mean the individual, closely focused philosophical reflection of a fundamental question or problem. Finally, it may mean the form of religious practice known from Hinduism and Buddhism that, unlike the other two modes of meditation, seeks to transgress object-bound consciousness into a state of abstract enlightenment. Judging from his statements on how he got inspired to write the *Corona-Meditation* (see above), Kühr apparently had the meaning of philosophical reflection in mind, in this case meditation on one's life and on the state of the world in general. But be it as it may, each of the three types of meditational practice requires the meditator to pause, because, as Kühr said, "one should prepare thoroughly and collect oneself in silence" ("man [sich ...] tunlichst vorbereiten soll und in Stille sammeln")^[29] for the coming task. Similarly, if any of these types of meditation is conducted successfully, one will try to sustain and appreciate the resulting state of insight or enlightenment for a while in a moment of silence. Thus, the corona measures spell these basic elements of meditative practice out in the score. Similarly, Kühr has said that he would like the *Corona-Meditation*'s "music to become part of everyday life" ("dass die Musik im Alltag Eingang findet"),^[30] and the corona measures thus serve as interfaces between everyday activity and performing the piece, demarcating a space of contemplation.

[4] The corona measures bring two fundamental and related dialectics of music-making to the stage of the *Corona-Meditation*: silence and sound, resting and acting. Though the two corona measures appear identical, their musical function and significance differs markedly because of how these dialectics play out in the piece. The resting of the performer and the period of musical silence at the beginning negate the turmoil of everyday life, yet both rest and silence also already contain the seed of their own dialectical negation: It is a—so to speak—active rest, in which the performer prepares mentally for the coming bodily activity of playing the piano; it is a silence ready to be filled with sound.

In contrast, the final corona measure is already different from the first one on a phenomenal level. While the first corona measure is absolutely free from musical sounds (not free, of course, from given ambience sounds beyond the performer's control), the final corona measure is filled with the decay of the piano strings, since Kühr prescribes a continuously pressed sustain pedal at the beginning of the score and "l.v." ("lascia vibrare") at the end. The final corona measure negates the hitherto uninterrupted sounding of the preceding period of piano playing by prescribing the termination of playing; but to the listener it appears as a dialectical negation of the negation that brings silence back to the fore, not as the non-musical silence of the beginning but as a silence that sublates the previous world of sounds in the form of its decay tail. And while the first rest served for preparing to play the piano, the final rest allows the performer to submit to bodily passivity, to relax mentally, and to contemplate the moment—until everyday life demands attention and activity.

Potential Macro- and Mesostructure

If this analysis of the fundamental dialectical process of silence turning into sound turning into silence were combined with a superficial look at the score, the form of the *Corona-Meditation* could be described as tripartite (see figure 1a): corona measure—forty-eight measures of solo piano playing—corona measure. The forty-eight measures in the middle gradually assemble a characteristic one-measure tone constellation by adding a new sound event (in most cases one tone) every four measures. These groups of four identical measures are lettered A to L, and I will

hence refer to the complete forty-eight measures as “build-up.”

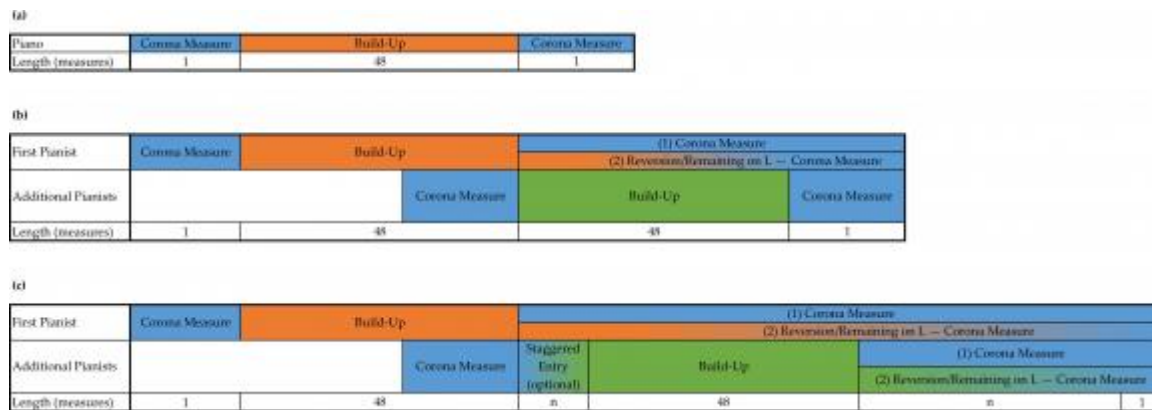


Figure 1: Macrostructure of the *Corona-Meditation*, (a) score, (b) minimum performance, (c) general performance model

However, attention to the “Instructions for Playing” accompanying the score and, in turn, to actual performance practice has to complicate this simple picture. Indeed, there is a marked dialectical opposition between unambiguous and seemingly strict prescriptive notation in the score and the liberties that musicians are afforded when performing the score by way of the instructions. Additional comments by Kühr indicate further possibilities for performative freedom beyond the provisions of the instructions, which are also present in the two performances at the premiere. This dialectic of prescription and liberty is resolved anew in each instantiation of the piece and is thus the source of considerable structural variety.

To begin with, the instructions state that “the four measures after letter L are followed by further instruments coming in to expand the musical sound.”^[31] It is implied that all additional pianists entering the performance after the first pianist’s letter L are required to play the whole build-up of forty-eight measures until reaching letter L themselves.^[32] What each pianist actually has to play in order to comply with the specifications in the score is in fact a more complex issue, as one is allowed to leave out notes. For the current sake of discussing the piece’s macroform, it is, however, sufficient to assume that every pianist plays forty-eight measures, irrespective of precise content.

The instructions state further that “each participant has the option of ‘turning back’ in the piece, i.e., after the 4-measure group at letter L, gradually leaving out one of the notes, now in reverse order. From this point on, the 4-measure groups need no longer be observed; the number of measures can be reduced to three or two.”^[33] A strict reading of this passage offers two options to any pianist after letter L: (1) proceed directly to the final corona measure or (2) reverse the build-up notated in the score, optionally leaving out measures, before ultimately proceeding to the corona measure. Performance practice at the premiere indicates a third option:^[34] remaining on L for an indefinite amount of time, including the possibility of leaving out notes (not necessarily in the form of a proper reversion of the build-up), before proceeding to the corona measure. Kühr has commented that the first two options can be considered “a ‘classical’ solution” (“eine ‘klassische’ Lösung”),^[35] but that the third option is acceptable in the context of a temporally bounded performance with a—at least partially—pre-planned development in which an elongation of certain pianists’ parts is desired. In general, Kühr has noted that his instructions are intended to point towards certain structural and processual features. They are meant to avoid completely random developments but do not have to be followed to the letter, as long as the spirit is preserved.^[36] This will become especially pertinent in discussing the *Corona-Meditation* in perpetual performance.

Assuming now that the additional pianists abstain from turning back or remaining on L and proceed directly to the final corona measure, a minimum performance of the *Corona-Meditation* would therefore encompass the following four parts (see figure 1b): corona measure—forty-eight measures of solo piano build-up—forty-eight measures of multi-piano build-up, overlapping with either (a) the final corona measure of the first piano, (b) the first piano's reversion of forty-eight or fewer measures, or (c) a free variation on L—corona measure (tutti).

[5] But that is still not the whole story: The instructions explicitly allow for canonic entrance of the additional pianists on a beat (or subdivision of a beat) other than the first pianist's "one."^[37] Strictly interpreted, the instructions seem to prescribe that the additional pianists have to enter within the first measure after the first pianist's L. Again, Kühr has called this the "classical" approach.^[38] However, a freer entrance with a delay of several measures can be considered in line with the spirit of the instructions, especially with regard to performances with many pianists. Thus, the solo piano part has to be at least forty-eight measures long but is potentially longer, depending on the entrance of further pianists. Similarly, some or all of the additional pianists may choose to turn back in the piece or remain on L, and accordingly, the multi-piano part may be longer than forty-eight measures. If some pianists enter later than others, then this will similarly extend the number of measures beyond the minimum. One can thus arrive at the following general model of the piece's form (see figure 1c): corona measure—forty-eight measures of solo piano build-up plus optional further solo performance—at least forty-eight measures of multi-piano build-up plus optional reversion/remaining on L, overlapping with the first piano and with each other in varying ways—corona measure (tutti).

Performed Macro- and Mesostructure

Considering now the two performances at the premiere, the first performance by Chepovetsky and Scheucher alone closely resembles a minimum version: corona measure—forty-eight measures of build-up plus half a measure of reversion by Chepovetsky solo—forty-eight measures of build-up by Scheucher overlapping with the remaining forty-seven and a half measures of reversion by Chepovetsky as well as with the beginning of her final corona measure—final corona measure (Chepovetsky and Scheucher). Scheucher enters canonically on the third beat of Chepovetsky's meter, thereby causing the offset of half a measure. Further latency or divergency between the two performers' meter and tempo shall be ignored in the current context of discussion.

Chepovetsky plays the build-up as notated and executes the reversion symmetrically, without shortening the four-measure periods. Scheucher's performance, however, needs some further discussion. Though he plays forty-eight measures, he does not play the build-up exactly as notated in the score. A closer look at the meso-level of the multi-piano section unfolds the constellation between the two pianists' parts, as shown in figure 2a. Scheucher plays some of the one-measure tone constellations notated at certain letters in the score longer than four measures, while never playing the constellation at letter K. In addition, there is one measure (marked as X in figure 2a) in which he plays a constellation that is nowhere notated in the score (see transcription X in figure 3).^[39]

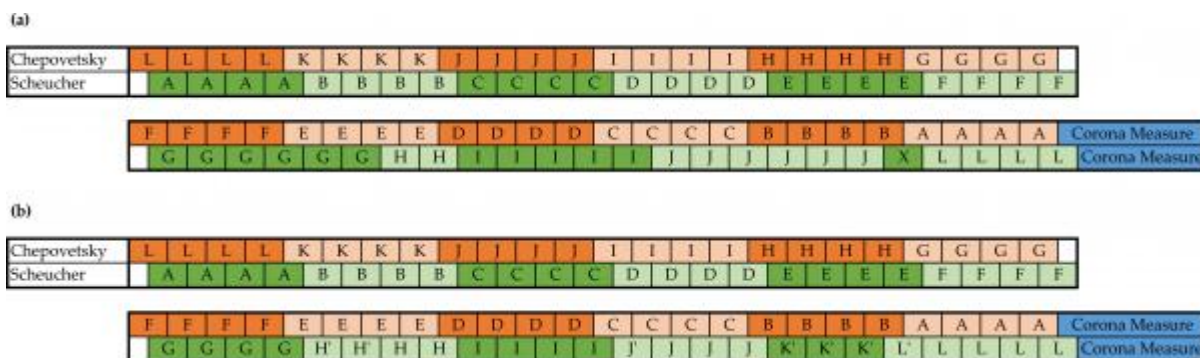


Figure 2: Two interpretations of the measure structure of the two-piano section of the first performance at the *Corona-Meditation's* premiere

These deviations were probably non-intentional. However, they can in fact mostly be justified as still being compliant with the score. As mentioned above, the instructions to the score allow each pianist to “decide individually how many notes to play within any given measure.”^[40] Thus, the additional measures of the constellation at letters G, I, and J can be reinterpreted as the constellations at letters H, J, and K, respectively, with exactly those notes left out that constitute their *differentia specifica* in comparison to the constellations at the preceding letters (see figure 3). The constellation X can similarly be reinterpreted as the constellation notated at L, but without the G4. The meso-level form of the multi-piano section can thus be interpreted as shown in figure 2b. Reinterpreted in this way, Scheucher’s performance can be considered largely compliant with the specifications in the score,^[41] although section K would still be one measure too short. In any case, this is also a good demonstration of why strict adherence to the score and the instructions may not be necessary to preserve the general mood or point of the piece and represent, in performance, specific structural and processual features intended by Kühr.

The figure displays four pairs of musical staves, each pair connected by a red arrow pointing from left to right. Each staff set is in 4/4 time and contains three systems of staves (treble, middle, and bass). The left side of each pair shows the original notation, and the right side shows a reinterpretation. The measures are labeled G, H', I, J', J, K', X, and L'. Unplayed notes are indicated by brackets.

Figure 3: Reinterpretation of selected measures played by Philipp Scheucher during the first performance at the premiere of the *Corona-Meditation* (unplayed notes are bracketed)

The second performance at the premiere is macro- and mesostructurally less schematic than the

first one. With the available recording, it is impossible to trace exactly what every single one of the more than fifty participating musicians is playing, but some interesting observations can nevertheless be made. Chepovetsky is the only pianist playing throughout, performing 142 measures altogether, plus the two corona measures at the beginning and end. She plays the complete build-up as notated, but Scheucher joins in already when she has reached only the third measure of letter C, with the other musicians gradually entering afterwards. Judging from the available video footage, the final participants seem to join when Chepovetsky is playing the four measures at letter I. This early entrance of the additional musicians is again a deviation from the letter of the “Instructions for Playing,” as these require that the additional performers start only *after* letter L. This deviation was justified as a measure to limit the length of the second performance with the many overlapping parts, which even in this form lasted almost eighteen minutes.^[42] Furthermore, the whole solo build-up had already been heard before in the first performance and could be considered known at this point. The more complex form of the second performance is depicted in figure 4.



Figure 4: Macrostructure of the second performance at the *Corona-Meditation's* premiere



Figure 5: Measure structure of Olga Chepovetsky's solo coda to the second performance at the *Corona-Meditation's* premiere

[6] It seems that all participants play the build-up as notated and then—with the exception of Chepovetsky—a reversion of individually indiscernible length (indiscernible due to the recording quality and the complexity of the audio mix) ending in the corona measure. Chepovetsky, by contrast, does not “turn back” after having finished her build-up but keeps playing the constellation at letter L, making use of the “non-official” option mentioned above. She sometimes leaves out notes so that she actually plays the constellations at letters K or G, while, however, always returning to the full constellation at L for several measures.^[43] At Chepovetsky's measure 126, the last two of the other pianists (Scheucher and Markus Schirmer) have reached the corona measure, while she keeps on playing solo. At first it seems as if she were now also playing a rapid reversion, but this process ends early with a gradually fraying and decelerating variation of the constellation at letter H. The structure of this solo coda is shown in figure 5, and the final variations are transcribed in figure 6. Again, one can see how the spirit of the piece is preserved, even though this coda does not adhere to the specifications of score and instructions.



Figure 6: Transcription of the final measures of Olga Chepovetsky's solo coda to the second performance at the *Corona-Meditation's* premiere

Coarse-Grain Microstructure

Having gained a closer understanding of the degrees of variability in the macro- and mesostructure of the *Corona-Meditation* that result from a dialectic of prescription and liberty, one can now take a closer look at the exact design of the tone constellations found at the different letters of the score. This section will address “coarse-grain” aspects of the microstructural design as it is represented in the notation of the score. The following section then addresses “fine-grain” aspects of the piece’s performed micro-structure.

On listening to the *Corona-Meditation* for the first time, my intuition was to hear the piece as an exercise in variation, “developing variation” in some respects: A basic one-measure unit is presented at letter A. This unit is gradually expanded, embellished, and transformed through the addition of tones (that remain in their assigned position in all following measures) until reaching the fully developed stage at letter L, at which at least one exemplar of each of the twelve chromatic pitch-classes is played at some point in the measure.^[44] Alternatively, one could also conceive of the development in the score as the assembling (or in the process of reversion: disassembling) of a jigsaw puzzle or as a gradual uncovering (or covering) of a constellation that is always completely present, though not fully audible.

The latter view seems to be closer to Kühr’s original conception. He has described his piece as “a still life in sounds” (“ein Stilleben in Tönen”),^[45] as essentially static: “Well, I would rather say about everything that it is a sound image and, in that regard, not a composition that develops

dynamically, because it doesn't have that at all. It has practically nothing processual, nothing dramatic.”^[46] When I confronted Kühr in our interview with my initial conception of the piece as a variation, he laughed but apparently did not find it fully implausible, pointing out that the process might even be regarded as “character variation,” as every added sound event causes new rhythmic and melodic gestalts to spring from the audible surface. From a technical standpoint, it does not make much of a difference which conception is chosen. However, it may alter the way in which the piece is experienced and the meaning one finds in it. In this sense, the *Corona-Meditation* offers dialectical affordances for apprehending it as either static or developing. In the following discussion, however, I will assume the static view to be the emic conception.

Frame

A basic structural distinction to be made on the note level is that between what Kühr has referred to in our interview as the “frame” and what I would like to call the “interior” in parallel with this term. The contrasting musical characteristics of these two parts, which are described in the following paragraphs, can be interpreted as staging a dialectic of conservative orthodoxy in the case of the frame (major tonality, rhythmic tracing of the 4/4 meter) and vanguard heterodoxy in the case of the interior (atonality, syncopated rhythm). Close analytical investigation, however, also points to a precarious character of this antithetical configuration including hints at synthetic resolutions of the opposition.

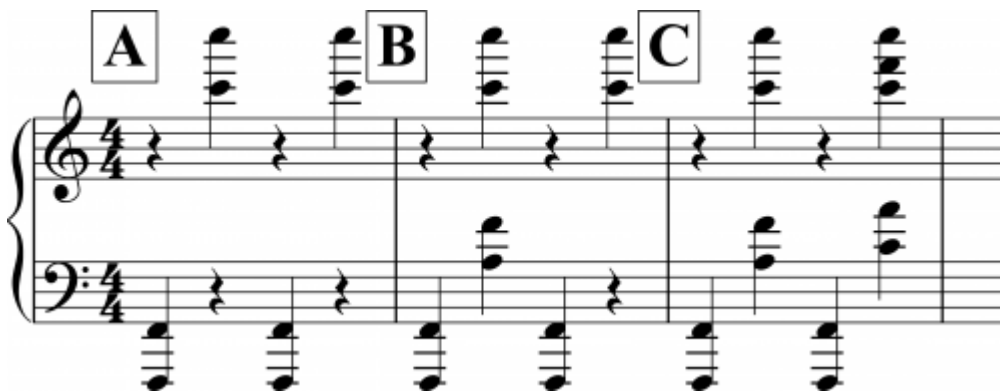


Figure 7: Development of the frame (repeated measures removed)

The frame is constituted by a figure steadily marking the piece’s 4/4 meter, reminiscent of a stride piano accompaniment stretched out across the piano keyboard and played in slow motion (the tempo assignment is quarter note = approx. 37, characterized as “very calm and even”).^[47] This frame is established in letters A to C (see figure 7). The pitch classes F, C, and A, which provide the pitch content of the frame, are—respectively—quadrupled, tripled, or doubled at different octaves. As the sustain pedal is pressed throughout the piece, the other piano strings function as sympathetic strings. Thus, the figure of the frame creates a pervasive and richly resonant F major harmonic atmosphere.

I asked Kühr in our interview why he chose F major as the harmonic frame. He replied that, on the one hand, it was mere intuition or personal preference to go to this key when he sat down at the piano. On the other hand, he pointed out musical reasons: Kühr did not want to use the piano tones above C7, as he deemed their sound too thin in the intended context. Had he chosen A major as tonal frame and used A0 as the lowest possible tone, he would have had to move either up to E7, into the thin octave, or down to E6, thereby significantly lowering the overall sonority.

Interior: Rhythmic Design

[7] Against the F major backdrop of the frame, the interior is constituted by one representative of each remaining chromatic pitch class, each tone having a distinct place within the pitch gamut of the piano and within the temporal order of the 4/4 measure. All tones of the interior—except the last presented A flat⁴—are positioned on binary/quaternary subdivisions between the beats of the 4/4 meter, and therefore also between the tones of the frame. This opposition of rhythmic “mood” (meter vs. syncopation) in turn highlights the general structural opposition between frame and interior. However, both antithetic rhythms also resolve into a synthetic rhythm in which the oppositions are sublated. Figure 8 shows the rhythms resulting from all single tones and chords played in a measure at the different letters in the score in both frame and interior.^[48] The completely unfolded rhythm at letter L can be analyzed as being constructed out of one elementary figure α (two sixteenth notes and one eighth note) and its mirrored version α' (one eighth note and two sixteenth notes): α - α' - α' - α . Thus, there is mirror symmetry within both halves of the measure, but also higher-level symmetry between the construction of both halves of the measure.

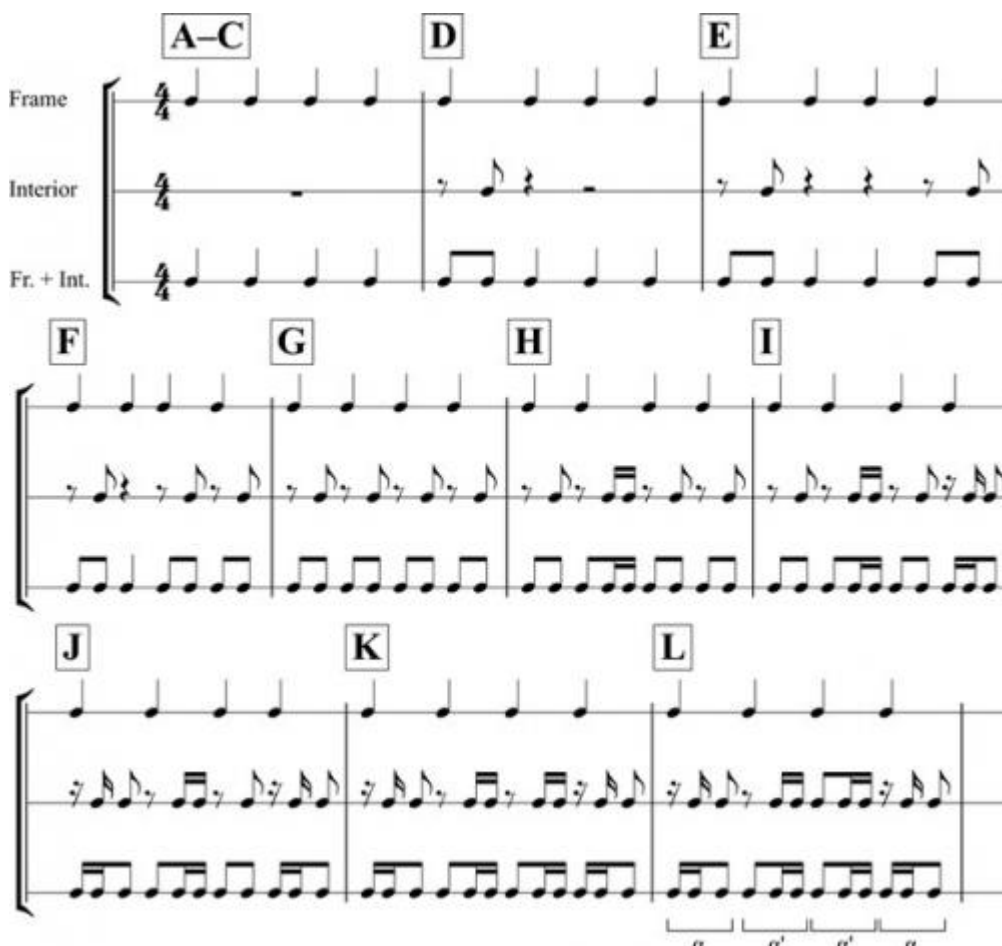


Figure 8: Rhythms of frame, interior, and their synthesis (repeated measures removed)

Kühr did not intend this specific symmetry but is pleased that it emerged in the compositional process.^[49] He rather tried more generally to make the rhythmic aspect of the *Corona-Meditation* “comprehensible, but not exactly predictable” (“nachvollziehbar ..., aber nicht genau vorhersehbar”),^[50] a statement that might also serve as a general motto for the piece’s design. A highly traditional four-measure period in 4/4 meter is established from the very beginning. From letter D onward, listeners will soon recognize that not only is an additional tone introduced after each period, but that these tones are placed between the beats of the meter and therefore also

effect a gradual transformation of the rhythmic gestalt. The predictability on this level causes a high degree of comprehensibility. Yet there is no established traditional or stylistic convention making it foreseeable where the tones are placed in rhythm space and how the rhythm will turn out in the end, thereby introducing a degree of unpredictability that prevents obviousness. After the synthetic rhythm has been heard completely at L, it should nevertheless be easy for many listeners to parse the unusual but not overly complex construction.

The exact way in which the rhythm is unfolded is also characterized by this dialectic of predictability and unpredictability: From letters D to G each quarter note is successively divided into two eighths. However, this is not done in a simple sequence, such as first quarter-second quarter-third quarter-fourth quarter, but rather with maximum variation: first-fourth-third-second. When the quaternary subdivisions are being introduced over the course of letters H to K, the sequence is again transformed through a division of the second eighth of the second quarter, then subsequently the first eighth of the fourth quarter, the first eighth of the first quarter, and finally the second eighth of the third quarter. A final rhythmic surprise, revealed at letter L, is the A flat⁴ on the third beat, which is the only tone of the interior that is played simultaneously with an element of the frame, both linking and contesting the oppositional metro-rhythmic terrain of frame and interior.^[51]

Interior: Pitch Design

Turning now from the construction of rhythm to the spatial and sequential organization of pitch, this aspect of the piece's design is, on a basic level, informed by two different aims: First, Kühr sought to represent all remaining pitch classes in the interior that are not part of an F major triad. In this regard, the dialectic of predictability and unpredictability is also present in pitch space. The introduction of B⁴ at letter D as a pitch that is alien to an F major triad creates a feeling of unpredictability. In turn, however, the constant addition of further non-triad pitches, a new one every four measures, becomes highly predictable and the processual principle comprehensible. Yet in what order and where exactly in pitch space the new pitches are introduced is again unpredictable.

Second, Kühr sought to find a constellation where—in spite of this tonal/harmonic opposition between frame and interior—it is possible “that at the end, when all twelve tones are there, one can still say: That sounds beautiful, it has a unity” (“dass man zum Schluss, wenn alle zwölf Töne da sind, trotzdem noch sagen kann: Das klingt schön, das hat eine Einheit”).^[52] As conventional conceptions of musical beauty prevalent among the primary intended audience of the *Corona-Meditation* would exclude harsh and extensive harmonic friction and dissonance, these two aims introduce already in the compositional process a dialectical tension. Kühr has pointed out that his approach to solving this problem was grounded in theoretically informed attention to the development of the resounding harmonic spectrum over the course of the piece, considering what he calls the “overtone laws, ... the laws of friction and the laws of tension” (“Obertongesetzen ... den Reibungsgesetzen und den Spannungsgesetzen”).^[53] Kühr remarked in our interview that paying close attention to the harmonic spectrum reminded him of his studies with Sergiu Celibidache, in whose musical phenomenology the overtone series plays a special role. Celibidache's theoretical ideas may thus help to understand the criteria guiding pitch construction in the *Corona-Meditation*.

Celibidache did not publish anything on his rather peculiar philosophy of music during his lifetime, relying instead on verbal transmission in seminars. A posthumously published lecture

manuscript provides important hints at his conception of the (idealized) overtone series and its role in his theory of musical perception and experience.^[54] Celibidache's attention focuses on the first sixteen partials—the fundamental tone and what he refers to as the fundamental tone's "family" ("Familie")^[55] of second to sixteenth overtone. According to Celibidache's theory, the more partials two tones share, the closer is their relationship and the lower is the perceived tension (for example, F1 and F2). The fewer partials they share, the more distant is their relationship and the higher is their tension. However, Celibidache also acknowledges register and dynamics as factors influencing perceived tension: If, say, F2 and B2 were to be played together, both tones' overtone series would interlock throughout, thus creating, in his words, many "contact points" ("Kontaktpunkte") between the partials of each tone, which are perceived as a high degree of "opposition" ("Opposition").^[56] The more the B is moved into higher octaves, the lower is the amount of interlock between the two overtone series (especially when considering only the first sixteen partials), thus creating fewer contact points, less opposition, and less tension. Similarly, if F2 and B2 are both played loudly, they have a very pronounced overtone spectrum, thus creating many contact points and a high degree of tension. If, in contrast, one or both tones are played more softly, there are fewer contact points, as the softer tones have a less pronounced overtone spectrum, lowering the degree of perceived opposition and tension.

[8] As a general strategy of diminishing tension despite dissonant interval relations in the *Corona-Meditation*, one can point out the "sempre pp" prescription applying to the complete score. Of course, a reduced dynamic serves the intended meditative character of the piece independently of the pitch material. But the amount and intensity of overtones produced by each key attack is thereby also reduced, resulting in fewer potential contact points in the audible surface.^[57] Apart from such an overall strategy, a Celibidachian conception of the overtone series also informs the specific pitch organization of the *Corona-Meditation*. This conception is employed as a means of both highlighting and resolving the harmonic dialectic between frame and interior. A few examples shall illustrate this compositional approach.

B4, positioned on the first beat's second eighth, is the first tone of the interior unveiled after the frame has been firmly established. As B and F form the pitch-class interval of a tritone, this first tone of the interior immediately questions the hitherto seemingly unshakable F major harmony. In the harmonic series on F, a B (deviating in its ideally calculated form only slightly from twelve-tone equal temperament) is included only late in the series, as the forty-fifth partial. Thus, there is almost no merging of the harmonic spectra of F1/F2 and B4. As minor second/major seventh in relation to C and major second/minor seventh to A, B is also in a dissonant relation to the other two tones of the frame and features as the fifteenth and ninth partial in their harmonic series, respectively. However, this tension is attenuated by the positioning of B4 between the lowest and highest tones of the frame, providing less conflicted space for the more pronounced lower-order partials of each tone resonating at this stage of the piece.

The second tone of the interior, unveiled at letter E, is E5 on the final eighth of the measure. Kühr told me that he was interested in the ambiguous quality created by this tone at this juncture: It may be heard as the leading tone to F in the context of the frame, though of course the immediately neighboring F5 is not part of the constellation. There is also a consonant relation to the C and A pitches of the frame. However, the ascending fourth leap from B4 to E5 (or the subsequent fall back to B4), which is still easily perceivable as a melodic gestalt at this relatively transparent stage of the piece, creates, in Kühr's words, "the idea of a different tonic's world" ("die Ahnung von einer anderen Grundtonwelt"), an allusion to an E tonality that serves as "a bit of pepper" ("ein bisschen Pfeffer") within the F major context of the frame.^[58]

The next tone of the interior that is presented, the E flat3 on the third beat's second eighth, could then be heard as reinforcing this E tonality by functioning as a leading tone to the tonic (if enharmonically reinterpreted as D sharp3). Yet the two-octave distance to E5 makes this functional quality melodically less obvious, while also attenuating the spectral tension that would have been created by an E flat5 closely followed by an E5 with continuously pressed sustain pedal. While the chosen octave position keeps the amount of tension low in the mid-register, though, the E flat3, which is the lowest tone of the interior, creates tension in relation to the lower domain of the frame between which it is positioned, thus highlighting the dialectic between interior and frame.

With the unveiling of the further tones of the interior, filling both temporal and pitch-spatial/spectral gaps, this hint of an E tonality is gradually dispersed in favor of new, similarly multi-valent, and—given the growing number of elements as potential reference points—increasingly complex relationships. Instead of attempting to trace all these relationships with regard to each individual new tone, it is more important to consider that Kühr tried to design the complete constellation at letter L towards two specific features: the two whole steps D6–C6–B flat5 in the higher register followed by the two half steps A flat4–G4–G flat4 in the mid-register (see figure 9). He told me in our interview that these two figures started to emerge while he was testing different solutions to his self-posed compositional problem. He was delighted by this discovery, as he understood these figures to display the basic building blocks of the diatonic and chromatic scales—whole and half steps. One could say that he in turn adopted a tactical attitude towards these two figures within the context of his larger compositional strategy, so that in addition to fulfilling the general provisions of the compositional concept, the complete constellation at letter L would encompass these two figures. At the same time, Kühr tried to avoid introducing both figures too early in the build-up, so that they would not dominate the listeners' experience of the piece's tone constellation and render its appearance too simple and unambiguous.

The image shows a musical score for a piano piece, starting at measure 46, marked with a box containing the letter 'L'. The score consists of five staves. A blue oval highlights a whole-step figure in the upper register, spanning the first two staves, which corresponds to the notes D6, C6, and B flat5. A red rectangle highlights a half-step figure in the mid-register on the third staff, corresponding to the notes A flat4, G4, and G flat4. Above the red rectangle, the labels 'm. d.' and '(m. s.)' are written. The score includes various musical notations such as notes, rests, and accidentals.

Figure 9: Whole-step (blue frame) and half-step (red frame) figures in the context of the tone constellation at letter L

A striking aspect of the whole-step figure is that the C6 was originally presented as part of the frame, a structural assignment that is reinforced visually by the score. Thus, conceiving the

whole-step figure as a significant structural feature amounts to a “negation of the negation” with regard to the dialectic between frame and interior. However, I must admit that I find it difficult to discern these two whole steps as an auditory gestalt. For one thing, the slow tempo of the piece does not facilitate a separation of auditory streams in different registers. Thus, I hear a descending melodic leap of a minor tenth from D6 to the prominent mid-register B4, separating D6 melodically from C6; and even the ascending, rather huge leap of a major thirteenth from D flat4 to B flat5 appears to me melodic in nature, thus separating C6 from B flat5. Furthermore, C6 blends in my perception too well with the other tones on the second beat, making it hard for me to single it out as an element of a melodic figure against a chordal backdrop. Performing the passage myself made the whole-step figure a bit more evident, largely because of the distribution of tones among the two hands: The tones of the figure are all in the right hand, and there they are uninterrupted by other tones. Given the participatory *Hausmusik* nature of the piece, performance is of course a highly relevant way of experiencing the piece.

[9] In contrast, the half-step figure is in my auditory perception phenomenally more salient as a connected melodic gestalt, although I cannot help but hear the E5 as an addendum that “pollutes,” so to speak, the “pure” presentation of descending half steps by attaching an ascending augmented sixth (or minor seventh, as the tonal context is ambiguous in audition) to the downward movement. Furthermore, one might ask why one should not consider the A4 from the frame chord on the fourth beat to be part of the melodic gestalt (as one should also consider the C6 on the second beat to be part of the whole-step figure), which would interrupt the half-step descent (A flat4–G4–A4–G flat4). Performing the passage myself was in this case also less helpful than in the case of the whole-step figure, as both hands contribute to playing the half-step figure. Of course, analysis has already shown that the *Corona-Meditation* is infused with ambiguousness that cannot (and need not) be resolved into a single “correct” interpretation. Rather, the opposition between auditory, performative, and notational affordances that the discussion of these two figures brings to the fore might be interpreted as indicating that listening, performing, and reading are aesthetically relevant but not necessarily congruent modes of attending to the *Corona-Meditation*.

Returning to the more tangible features of the complete constellation at letter L, the A flat4 needs closer attention as a final interesting—and, as Kühr told me, intended—aspect of the pitch-spatial organization of the *Corona-Meditation*. This tone is significant not only as part of the descending half-step figure or from the rhythmic viewpoint discussed above but also from a harmonic perspective. Coinciding with the F1/F2 on the third beat, this final interior tone that is revealed suggests an opposition of F minor against the hegemonic F major. Thus, while the opposition of frame and interior is negated from a temporal perspective (the rhythmic segregation of both structural building blocks is suspended at that critical juncture in the measure), a new, hitherto unheard dialectic of harmony is uncovered as a final twist of the build-up and particularly emphasized by the rhythmic coincidence of frame and interior.

While discussing my analysis of the *Corona-Meditation*, Kühr pointed towards another harmonic opposition in relation to the A flat4.^[59] If the written note is enharmonically reinterpreted as G sharp4, it forms an E major relationship with B4 and E5. In the process of the build-up, these were the first two tones that were revealed, and they already afforded a bitonal “E-ish” opposition against the frame’s F major. In the conclusion of the build-up, A flat4 is rhythmically positioned in the middle of them, and all three pitches are positioned within the close range of a minor sixth—unlike the pitches constituting the frame’s F major that are spread across the piano’s range. Thus, in addition to the F minor/F major opposition created by the vertical

relationship between A flat⁴ and the underlying F1/F2, there is an opposition of E major against F major grounded in horizontal relationships embedded in the interior. As in the case of the whole-step and half-step figures, perceiving this opposition is a matter of combined attention to notational and auditory affordances.

Perceiving Frame and Interior

Summarizing the investigation of the microstructure so far, the following can be noted: Frame and interior constitute a foundational structural opposition. The joint structure of frame and interior at letter L can be described as a spectrally balanced but harmonically largely dissonant constellation of tones in a plethora of deliberately ambivalent and only partially intended relations. The order in which the tones are presented over the course of letters A to L as well as their positions within the measure highlight some of these relations while concealing others that might, if they were presented more prominently, dominate the ambivalent structural appearance of the constellation. While the contrary character of frame and interior is presented quite clearly by way of their respective musical design, there are also structural features that suggest a synthetic transgression of this opposition.

Given this ambiguousness of relations, it might be fruitful to conceive of the tone constellation (including all of its more or less complete presentations) as a sonic “toy” that can be used for auditory play, that is, for trying out differently focused “listenings.” Some of these listenings may be conducted from the vantage point of a non-performing audience member, others from that of a performer. These aesthetically complementary and consecutive listenings would apprehend different sub-sets of relations, thereby carving out different relational features that would be mutually exclusive in simultaneous perception. Such a practice of listening would thus trace the dialectical affordances inherent in the *Corona-Meditation* and, as a result of this cumulative process, create an aesthetic synthesis of these oppositions. The subjective comprehension of a given phenomenon’s dialectical features was referred to by Engels as “subjective dialectics.”^[60] Accordingly, one might speak of “dialectical listening” as an aesthetically fruitful way of attending to the *Corona-Meditation*. If one considers score reading another aesthetically relevant way of experiencing the piece,^[61] as suggested by the issue of the whole-step figure and the E major/F major dialectic, this would also open the possibility for dialectical reading and, in turn, for a compound mode of dialectical perception and cognition encompassing listening, performing, reading, and analytical or critical reflection.

Fine-Grained Microstructure

One important microstructural aspect of the *Corona-Meditation* has hitherto been bracketed, namely the dialectic between controlled execution and random blurring, which is a feature of the piece emerging in actual performance. The dialectic between prescription and liberty discussed earlier with regard to macro- and mesostructure is related but pertains to voluntary actions of performers of the piece. On another level, the piece also allows for—or even invites—non-intentional, involuntary blurring in its performative actualization: imperfect synchronicity of the performers’ tempo and meter and heterogeneous tuning of the different instruments used. Both these factors have random effects on the density (or transparency) of the rhythmic texture and the overall harmonic spectrum that seemingly undermine the careful construction found in the score. Kühr has described these effects as “blurring” (“Unschärfen”),^[62] “differentiations”

(“Differenzierungen”),^[63] “offsets” (“Verschiebungen”),^[64] or “nuancings” (“Nuancierungen”).^[65] These effects should not be understood as peripheral—rather, Kühr has stated that he intended them to be “the center of the piece” (“das Zentrum des Stücks”).^[66]

[10] Kühr’s motivation to embrace these factors of blurring lies in the performance conditions he envisioned for the piece. The unpredictable latency in video conference communication makes it impossible to demand perfect synchronicity.^[67] Kühr even tried to amplify this asynchronicity through his choice of a very slow tempo: “I wanted to get the pulse as low as possible, so that on the one hand it could still vibrate—musically vibrate—for a single person on the instrument alone, and that on the other hand it is so slow that it is extremely difficult—especially over the internet—to play together, to be very close together.”^[68] He accepted a heterogeneous tuning for similarly inevitable reasons from the beginning: “That was due to the fact that I wanted ... everyone to be able to link in, [and] that of course I cannot predict how someone tuned his piano.”^[69]

What are the aesthetic implications of this dialectic of controlled execution and random blurring? A synthesis can be identified if we transform our conception of a performance of the *Corona-Meditation* into an act of dialectical listening: Instead of hearing the performance as the presentation of rhythmically and pitch-spatially defined structures of sound events, one needs to hear it, as Kühr has suggested, as a “sound cloud” (“Klangwolke”).^[70] This means shifting one’s attention from tracing the onsets of tones and chords and their harmonic, melodic, and rhythmic relations to contemplating the phases between the attacks of the piano keys. With this listening attitude, one discovers rich and modulating spectral planes that are sprinkled with the impacts of the hammers hitting the piano strings. Such a sound cloud does not suffer from different degrees of metrical offset, tempo divergence, or out-of-tune instruments; such blurring only modulates the cloud’s texture and timbre.

In conducting this shift in listening, one can experience a dialectical transformation of quantity into quality: The performance of the solo pianist suggests a crystalline and comprehensible structural quality. With the entrance of the other pianists and the resulting accumulation of sound layers, this structural quality is negated; and in this act of contradiction, a cloudy quality is brought to the fore. This cloudy quality was there all the time but appears accidental when one listens for structure. In contrast, the sound cloud sublates as texture those qualities that were crucial in the originally suggested structural parsing of the audible surface. Depending on the course of a performance, such as in the second performance at the premiere, the structural quality may reappear again if a single pianist keeps playing for an extended period after the others have reached the corona measure. But in the very end, it is exactly the cloudy quality of the strings’ decay that is carried over into the final corona measure and is subject to negation in the gradual and dialectical return to silence.^[71]

Perpetual Performance

Having discussed the *Corona-Meditation* as a piece intended for conventional, temporally finite performance, I would now like to revisit the issue of perpetual performance. The basic idea, which was described in Kühr’s words above, is that there is a continually open online forum where pianists can freely log in and join the performance whenever they desire and for how long they desire. People from all time zones of the world participate, and thus there is always a continually

changing group of pianists performing the piece together. This seemingly simple constellation problematizes the guidance provided by score and instructions as well as the conclusions drawn from analysis of the piece in finite performance.

The first question is: When should a new participant who was not part of the very first group that started the perpetual performance join in? As the performance would have been set in motion at some past point in time, there is no first pianist serving as a point of orientation, and there is no need to wait for this pianist to have reached letter L, as this event would have already happened. Assuming that there is a certain critical mass of participants present at each point in time and given the various performance options (which include turning back and leaving out notes), it will also be difficult or impossible to infer at which stage of their individual performance contributions every participant currently is. Thus, it would not make sense to stipulate a rule like “Join in after the pianist currently closest to approaching letter L has completed the four measures of L.” For practical reasons—and this has been confirmed by Kühr—any new pianist may therefore start at any time in the perpetual performance.^[72]

The most obvious option for the newcomer to the performance would then be to play one variant of an individual finite rendition that is woven within the communal sonic fabric, starting with a corona measure, playing a build-up, making use of the various further performance options at his or her own discretion, and ending in a corona measure. Assuming again a critical number of performers, a constant inflow and outflow of participants, and a relatively dense overlap of performative layers, such an approach would in sum very likely create a stochastically textured, constantly sounding, and therefore rather monotonous and thoroughly non-dialectical sound cloud, comparable to the middle stage of the second performance at the premiere.^[73] Kühr’s description of his piece as a non-processual still life in sounds, which was quoted above, seems more appropriate for such a sonic result than for a finite performance of the piece that will always retain some degree of differential musical development in its guided movement from beginning to end.

However, Kühr has indicated that such a monotonous sound cloud is not what he has in mind when imagining a perpetual performance. Rather, the sonic result of the perpetual performance should also feature changes in the different dimensions characterizing the piece, similar to those taking place in a finite performance, such as a continuously changing amount and micro-tonal density of pitches present or an increasing and decreasing complexity of (micro-)rhythmic structure.^[74] In this regard, Kühr has said that the notation and instructions in the score should be understood to indicate certain desired features of a performance in contrast to completely random processes.^[75] It follows that such a perpetual performance of the *Corona-Meditation* would also exhibit at least some of the dialectical features identified in finite performances and would lend itself to dialectical listening. Even a transitory tutti corona bar would not be unthinkable, thereby also retaining the framing—or, in the context of perpetual performance, rather: punctuating—dialectic of silence and sound.

[11] The objective of creating a sufficient degree of sonic variation and differentiation entails performers bearing even more artistic responsibility in perpetual than in finite performance: They need to have a shared understanding of the overall structural and processual “point” or “spirit” of the piece; they have to comprehend the momentary performance situation and the direction in which it is developing; and they have to make an individual informed decision about what and how to perform as part of a collective musical action, with the score and instructions providing only a kind of compendium of the performative options but not a map coordinating their

selection. The dialectic of prescription and liberty that is already pronounced in finite performance is therefore further enhanced in perpetual performance.

If this coordination of a principally unlimited number of performers is to take place in a swarm-like manner and without any centralized instance indicating at least rough directions of development, it would appear to require a most acute “mutual tuning-in relationship”^[76] between performers, to borrow a term by Alfred Schütz. Whether and under what conditions such a mutual tuning-in relationship could be sufficiently accomplished in open-ended online performance among performers who are potentially strangers to each other cannot be ascertained in the current context. The possibility should not be dismissed from the outset, and a systematic exploration of this issue in practice would be an intriguing study in artistic research.

Conclusion

The *Corona-Meditation* is an immediate artistic reaction to the COVID-19 lockdown of spring 2020 and its impact on socio-cultural life on individual and collective levels. Kühr has sought to create a kind of *Hausmusik* piece for the atomized conditions of lockdown life that retains some of the social aspects typical of the practice of *Hausmusik* and enables participation by musicians of various degrees of technical skill. Furthermore, the piece draws inspiration from two aspects of contemporary life: First, it is an artistic engagement with presumably widespread existential contemplation among people in lockdown who experience isolation and whose lives have been abruptly and drastically transformed by the crisis. Second, the piece integrates online communication—a pervasive feature of everyday lockdown life—into the compositional design, making creative use of the practical implications of this mode of interaction. The embracing of online communication has in turn opened for Kühr the possibility to envision a perpetual performance of the piece—in addition to conventional, finite performances—by a continually changing group of musicians living all around the world.

A dialectically sensitive analysis of the *Corona-Meditation* as intended for finite performance unearths a set of pervasive and tangibly staged antithetical oppositions that characterize the piece on various levels, such as silence/sound, resting/acting, prescription/liberty, predictability/unpredictability, unity/division, orthodoxy/heterodoxy, or sound structure/sound cloud. An especially important aspect on the microlevel of compositional design is the opposition of frame and interior, which is grounded in a series of dialectical traits: on-beat/off-beat, tonality/atonality (to some extent also bitonality and major harmony/minor harmony), consonance/dissonance, and spectral merging/spectral tension. The structural and processual relations that this constellation of frame and interior affords are deliberately ambiguous. This antithetical and ambiguous character suggests a multi-modal, iterative, and cumulative way of dialectical attending to the *Corona-Meditation* that subjectively traces the different possible syntheses afforded by the piece.

Considering the *Corona-Meditation* in perpetual performance, one might expect a highly monotonous, static, and non-dialectical sound cloud to emerge. But Kühr rather envisions a result that embodies the gradually changing character of finite performances. Achieving such a result without additional aids would apparently require a high amount of artistically responsible action from the individual performers as much as a thorough mutual coordination of the performing collective as a whole.

The discussion in the present article has considered the *Corona-Meditation* predominantly as a self-contained though contextualized structural and processual universe. Putting the *Corona-Meditation* in relation to Kühr's overall oeuvre and to works by other composers—past and present—offers itself as an obvious and auspicious way of expanding analytical engagement with the piece. Furthermore, the discussion in this article has rarely transgressed into a more cultural-hermeneutic mode of critical treatment that would, in John Richardson's words, "relate musical sounds to surrounding discursive formations."^[77] In this regard, the COVID-19 pandemic and its socio-cultural effects offer obvious interpretative opportunities, though the piece is also suited to raise questions beyond this immediate historical context and the field of phenomena that has been referred to as "corona-musicking."^[78] Kühr himself has made a hermeneutic invitation unrelated to the pandemic by hinting at metaphysical affinities of his composition. He has stated that the *Corona-Meditation* has

a little something of the universe, of the cosmos. There are so many phenomena in this space, and yet everything is somehow held together, has a kind of regularity, results in a harmonious whole. Now, of course, one can think and philosophize further; naturally Kepler's world harmony plays a role, his planetary system—so there are many, many points. And that is very, very important to me, because I believe that these are very special fundamental ways of organizing what makes up our world.^[79]

This quote indicates one promising line of hermeneutic inquiry that future studies may pursue. Likewise, the specific kind of performative sociality created—or at least afforded—by the *Corona-Meditation*, this sociality's aesthetic significance and its interrelation with structural and processual aspects explored in the present article, would be worth further exploration independently of the piece's initial historical motivation and would also invite comparison to pieces like Terry Riley's *In C*. The current investigation is, however, content with having illuminated the *Corona-Meditation*'s genetic relation to the consequences of the global COVID-19 pandemic and with having provided a well-founded analytical account of the inner workings of the piece.

References

1. See, for instance, the activities of the "[Musicovid](#)" [research network](#), such as the articles in different *Frontiers* journals collected under the research topic "[Social Convergence in Times of Spatial Distancing: The Role of Music During the COVID-19 Pandemic](#)," or the "[Musicians in America during the Covid-19 Pandemic](#)" [documentary project](#) conducted by the Society for Ethnomusicology (all accessed June 26, 2021). ↑
2. See the remarks in the following section. ↑
3. One could of course argue that this holds for any type of music piece based on a prescriptive score (see, for example, Charles Seeger, "Prescriptive and Descriptive Music-Writing," *The Musical Quarterly* 44, no. 2 [1958]: 184–95). However, the score of the *Corona-Meditation* provides intentionally far-reaching liberties for performers that cause a significant parallax between score and realization in performance. This parallax can hardly be considered negligible in any scrupulous analytical investigation of the piece. ↑
4. The following account of the genesis of the *Corona-Meditation* is based on my interview with Kühr, September 2, 2020, and on remarks made by Kühr on the radio program *Zeit-Ton* (interview by Franz-Josef Kerstinger, broadcast on Ö1, May 18, 2020) and at the press presentation preceding the premiere

of the *Corona-Meditation* ("[Corona-Meditation—Pressepräsentation](#)," YouTube, April 24, 2020, conversation between Mathis Huber, Gerd Kühr, Olga Chepovetsky, and Matthias Wagner, accessed June 26, 2021). ↑

5. Kühr in "[Corona-Meditation—Pressepräsentation](#)," April 24, 2020, 6:13–6:40. Original wording: "Offenbar sind eben jetzt wirklich unglaublich viele Menschen zu Hause, viel mehr zu Hause als sonst, eben auch tagsüber, unter der Woche et cetera. Was machen die? Die haben mehr Zeit, die haben Zeit wahrscheinlich auch zum Nachdenken, zum Besinnen, wie sich das ganze Leben geändert hat; oder mit der unsicheren Aussicht, wie geht es weiter; und gleichzeitig, als Musiker war das natürlich naheliegend, dass ich mir ganz optimistisch gedacht habe: Zeit für Hausmusik." All translations from German are the author's. The term *Hausmusik* is intentionally left untranslated throughout in order to preserve the connotations of "a sociological significance not found in similar terms such as the English 'music at home' or 'household music'" ([Grove Music Online](#), s.v. "[Hausmusik](#)," updated 2001, accessed June 26, 2020). ↑
6. A social scientific perspective on the general adaptation of online communication platforms for joint performance by musicians during lockdown is provided by [Kelsey E. Onderdijk](#), [Freya Acar](#), and [Edith Van Dyck](#), "[Impact of Lockdown Measures on Joint Music Making: Playing Online and Physically Together](#)," *Frontiers in Psychology* 12 (May 2021). Note, however, that Kühr stated in hindsight in our interview that he does not consider mediation via the internet essential to the piece and that he could very well imagine performances in which the musicians are, for instance, distributed among different rooms of a building, performing with open doors. ↑
7. The choice of piano can be interpreted as an allusion to classical bourgeois *Hausmusik* culture. However, in spite of this prescribed instrumentation, Kühr stated in our interview not only that he was content with a guitarist participating in the second performance at the piece's premiere but that he would also have agreed to any other plucked string instruments featuring a sufficiently extended decay phase, such as harpsichord. He only asked *Styriarte* not to include organs among the instruments used in the premiere. This request is easily comprehensible, as an organ would likely dominate the overall texture with its markedly different sonic features in comparison to hammered/plucked string instruments. ↑
8. Kühr, interview with the author, September 2, 2020. ↑
9. Kühr in *Zeit-Ton*, Ö1, May 18, 2020. ↑
10. A recording of the premiere was published a day later. See "['Corona Meditation' by Gerd Kühr—World Premiere](#)," YouTube, May 1, 2020, accessed June 26, 2021. ↑
11. Fifty-six pianists originally signed up to participate in the performance and are also listed in the credits to the recording of the premiere. Kühr (telephone conversation with the author, May 19, 2021) informed me that in the end only forty-eight or forty-nine of them actually performed at the premiere. ↑
12. The full list of performers and other people involved can be found in the [credits of the published recording of the premiere](#). ↑
13. See, for example, Felix Jurecek, "Die einsamen, gemeinsamen Töne," *Kronen Zeitung: Steirerkrone*, May 2, 2020, 47; Michael Tschida, "'Kosmische Gefühle' durch 58 Pianisten," *Kleine Zeitung*, May 2, 2020, 50; [Reinhard Kriechbaum](#), "[Wohnzimmer und Partitur gut aufgeräumt](#)," *DrehPunktKultur*, May 4, 2020, accessed June 25, 2021; and Michael Stallknecht, "Nach den Regeln des Internets," *Süddeutsche Zeitung*, July 1, 2020, 11. ↑
14. Kühr, interview with the author, September 2, 2020. ↑
15. [Anderson & Roe Piano Duo](#), "[The Corona Meditation](#)," August 1, 2020, accessed June 26, 2021. ↑
16. "[Das Lied am Donnerstag—Lydia Maria Bader](#)," YouTube, May 21, 2020, accessed June 26, 2021. ↑
17. David Lewin, "Behind the Beyond: A Response to Edward T. Cone," *Perspectives of New Music* 7, no. 2 (1969): 61–64. ↑

18. Ibid., 62. ↑
19. Bruno Nettl, *The Study of Ethnomusicology: Thirty-Three Discussions*, 3rd ed. (Urbana: University of Illinois Press), 99–101. ↑
20. Kofi Agawu, “How We Got Out of Analysis, and How to Get Back In Again,” *Music Analysis* 23, no. 2/3 (2004): 267–68. ↑
21. John Rink, “The (F)utility of Performance Analysis,” in *Artistic Practice as Research in Music: Theory, Criticism, Practice*, ed. Mine Doğantan-Dack (Farnham: Ashgate, 2015), 129. ↑
22. For reviews of Marx and Engels’s concepts and methods of dialectics, see Gerd Reichenberg and Dieter Schweitzer, “Karl Marx,” and Lothar Kuhlmann, “Friedrich Engels,” in *Modelle der Materialistischen Dialektik: Beiträge der Bochumer Dialektik-Arbeitsgemeinschaft*, ed. Heinz Kimmerle (The Hague: Martinus Nijhoff, 1978), 32–54 and 55–84. ↑
23. Frederick Engels, “Ludwig Feuerbach and the End of Classical German Philosophy,” in *Collected Works of Marx and Engels* (New York: International Publishers, 1990), 26:384. ↑
24. Passages addressing key concepts of Marx and Engels’s interpretation of dialectics are, among others, Frederick Engels, *Anti-Dühring: Herr Eugen Dühring’s Revolution in Science*, trans. Emile Burns, in *Collected Works of Marx and Engels* (New York: International Publishers, 1987), 25:110–32; and Frederick Engels, *Dialectics of Nature*, trans. Clemens Dutt, in *Collected Works of Marx and Engels* (New York: International Publishers, 1987), 25:356–61, 492–93. ↑
25. For the score of the piece in the version used at the premiere, see [Gerd Kühr, Corona-Meditation für Klavier \(Internet-Basisversion\)](#), accessed June 26, 2021. ↑
26. Kühr in *Zeit-Ton*, Ö1, May 18, 2020. Original wording: “Ein wesentlicher Teil meiner Ausgangsidee war ja auch, dass ich mir vorstelle, dass man dieses Stück ins Internet stellen kann und es ist zu jeder Tages- und Nachtzeit abrufbar. Und das heißt, es kann durch die verschiedenen Zeitzonen vierundzwanzig Stunden am Tag und sieben Tage die Woche et cetera immer laufen, denn es können immer Musiker, die in verschiedenen Zeitzonen leben, einsteigen dazu. Das ist eigentlich so meine Wunschvorstellung, ein perpetuum mobile, das sich um den Erdball ... bewegt. Das wäre mein Ideal; und scheinbar für uns ohne Ende.” ↑
27. Gerd Kühr, email to the author, January 26, 2021. ↑
28. Reiner Wimmer, “Meditation,” in *Enzyklopädie Philosophie und Wissenschaftstheorie*, ed. Jürgen Mittelstraß (Stuttgart: Metzler, 1995), 2:828–29. ↑
29. Kühr in [“Corona-Meditation—Pressepräsentation,”](#) April 24, 2020, 9:43–9:55. ↑
30. Kühr, interview with the author, September 2, 2020. ↑
31. [Kühr, Corona-Meditation für Klavier, 2](#). There are further specifications on how the additional pianists may enter the performance, which are discussed below. ↑
32. This is at least correct for temporally bounded performances: Kühr, email to the author, January 26, 2021. See also below. ↑
33. [Kühr, Corona-Meditation für Klavier, 2](#). ↑
34. See the discussion of the second performance below. ↑
35. Kühr, email to the author, January 26, 2021. ↑
36. Ibid. ↑
37. The first performance at the premiere is a transparent example using this option. See below. ↑
38. Kühr, email to the author, January 26, 2021. ↑

39. As Scheucher's part is mixed with a lower volume than Chepovetsky's in the recording, I aided my listening assessment by spectrogram analysis conducted in the software *Sonic Visualiser* in order to determine whether certain notes which I found missing were in fact played so silently that they are difficult to hear in the mix. Generally, though, my listening experience and the spectrogram were in agreement. This does, of course, not rule out the possibility that certain notes were played so silently that they were not registered by Scheucher's recording equipment or were eliminated by dynamics processors (such as noise gates) possibly used in the creation of the published mix. ↑
40. Kühr, *Corona-Meditation für Klavier*, 2. The rationale behind this provision is that it facilitates participation by pianists of limited technical skills and thereby supports the intended *Hausmusik* character of the piece. ↑
41. Indeed, if the instructions to the piece are read pedantically, a pianist playing nothing other than, say, the tone constellation at letter A for forty-eight measures (or even only an F1 on the first beat, a C6 on the fourth beat, or any other fragment), who is then joined by a second pianist doing the same, would produce a compliant—though somewhat cheerless—performance of the *Corona-Meditation*, a fact that Kühr confirmed in our interview. ↑
42. Kühr, email to the author, January 26, 2021. ↑
43. There may be other variations, but if this is the case, they are hard to discern within the increasingly dense texture of the recording. Furthermore, *Styriarte's* audio engineers seem to have mixed Chepovetsky's part into the background during certain passages, thus making it even more difficult to trace its details. ↑
44. Note that the development of a composition out of a minimal basic cell has been claimed to be a characteristic trait of Kühr's instrumental pieces. See [Sonja Huber and Wolfgang Fuhrmann, "Gerd Kühr," version March 15, 2017, in KDG—Komponisten der Gegenwart](#), accessed June 26, 2021. ↑
45. Kühr in *Zeit-Ton*, Ö1, May 18, 2020. ↑
46. Ibid. Original wording: "Also ich würde zu allem eher sagen, es ist ein Klangbild und in dem Sinn keine Komposition, die sich dynamisch entwickelt, weil das hat's überhaupt nicht. Das hat praktisch nichts Prozessuales, nichts Dramatisches." See also the discussion of perpetual performance below. ↑
47. Note that Kühr did not intend any symbolic meaning in choosing 37 BPM. Kühr recounts in the [press presentation](#) that he wanted to have a slow tempo for musical reasons discussed below. When playing the piece, he had settled somewhere between 35 and 38, then chose 37 because of a personal affinity to prime numbers. Only later did Mathis Huber point out that the number 37 is significant in the COVID-19 context, because 37° C marks the boundary between normal and increased body temperature, used as an indicator of possible infection. ↑
48. As the sustain pedal is continuously pressed, all tones are extended beyond the actual value notated in the score, in principle until the same key is hit again. Figure 8 thus does not always display the note values notated in the score but attempts to represent the rhythmic development in an easily readable manner. ↑
49. Kühr, telephone conversation with the author, May 19, 2021. ↑
50. Kühr, interview with the author, September 2, 2020. ↑
51. This A flat is of course not only rhythmically significant but needs to be equally discussed from a harmonic perspective (see below). ↑
52. Kühr in *Zeit-Ton*, Ö1, May 18, 2020. ↑
53. Ibid. This attention to overtone series can also be found in other works by Kühr. See [Huber and Fuhrmann, "Gerd Kühr."](#) ↑
54. Sergiu Celibidache, *Über musikalische Phänomenologie: Ein Vortrag und weitere Materialien*, 2nd ed.

(Augsburg: Wißner, 2008), 13–19, 29–31. Of course, Celibidache stands in a long tradition of music-theoretical and aesthetic speculation by authors like Jean-Philippe Rameau or Hugo Riemann mobilizing the overtone series for explanation and justification of theoretical propositions. ↑

55. Ibid., 13. ↑
56. Ibid., 31. ↑
57. Note that Chepovetsky played the F1 very softly throughout at the premiere. Kühr told me (email to the author, January 26, 2021) that this was done with the intention of providing spectral space in the higher octaves. ↑
58. Kühr, interview with the author, September 2, 2020. ↑
59. Kühr, telephone conversation with the author, May 19, 2021. ↑
60. Engels, *Dialectics of Nature*, 492. ↑
61. In this regard, Kühr has confirmed that the ancient notion of *Augenmusik* did inform his conception of the piece (telephone conversation with the author, May 19, 2021). ↑
62. Kühr in *Zeit-Ton*, Ö1, May 18, 2020. ↑
63. Ibid. ↑
64. Ibid. ↑
65. Kühr in "*Corona-Meditation—Pressepräsentation*," April 24, 2020, 11:07–11:11. ↑
66. Kühr in *Zeit-Ton*, Ö1, May 18, 2020. ↑
67. Likewise, the Glasgow Improvisers Orchestra has incorporated such technological shortcomings as artistic properties in the online improvisation sessions that they initiated in 2020. See [Raymond MacDonald, Robert Burke, Tia De Nora, Maria Sappho Donohue, and Ross Birrell, "Our Virtual Tribe: Sustaining and Enhancing Community via Online Music Improvisation," *Frontiers in Psychology* 11 \(February 2021\).](#) ↑
68. Kühr in "*Corona-Meditation—Pressepräsentation*," April 24, 2020, 10:27–10:47. Original wording: "Ich wollte den Puls so tief wie möglich kriegen, dass er einerseits noch schwingen kann—musikalisch schwingen kann—für eine einzelne Person am Instrument für sich und andererseits aber so langsam ist, dass es äußert schwierig ist vor allem übers Internet zusammenzuspielen, dass man haarscharf zusammen ist." See also corresponding remarks in *Zeit-Ton*, Ö1, May 18, 2020. ↑
69. Kühr, interview with the author, September 2, 2020. Original wording: "Das war geschuldet der Tatsache, dass ich ja wollte, ... dass jedermann sich einklinken kann, dass ich natürlich nicht vorhersagen kann, wie hat der sein Klavier ... gestimmt." ↑
70. Kühr in *Zeit-Ton*, Ö1, May 18, 2020. ↑
71. See above. ↑
72. Kühr, email to the author, January 26, 2021. ↑
73. Note in this context that the function of the corona measures would be reduced to a moment of individual collection for performance and contemplation of the ongoing sound cloud, as there would no longer be phases of communal musical silence. ↑
74. Kühr, email to the author, January 26, 2021. ↑
75. Ibid. ↑
76. Alfred Schütz, "Making Music Together: A Study in Social Relationship," *Social Research* 18, no. 1 (March 1951), 79. ↑

77. John Richardson, "On Music Criticism and Affect: Two Instances of the Disaffected Acoustic Imaginary," in *Critical Musicological Reflections: Essays in Honour of Derek B. Scott*, ed. Stan Hawkins (Farnham: Ashgate, 2012), 140. ↑
78. Niels Chr. Hansen, John Melvin G. Treider, Dana Swarbrick, Joshua S. Bamford, Johanna Wilson, and Jonna Katariina Vuoskovski, "A Crowd-Sourced Database of Coronamusic: Documenting Online Making and Sharing of Music During the COVID-19 Pandemic," *Frontiers in Psychology* 12 (June 2021). ↑
79. Kühr in *Zeit-Ton*, Ö1, May 18, 2020. Original wording: "Ein bisschen was von Weltall, von Kosmos. Da sind so viele Erscheinungen in diesem Raum und trotzdem wird alles irgendwie zusammengehalten, hat eine Art von Gesetzmäßigkeit, ergibt ein harmonisches Ganzes. Jetzt kann man natürlich weiterdenken und philosophieren, selbstverständlich Keplers Weltenharmonik spielt eine Rolle, sein Planetensystem—also da kommt man auf viele, viele Punkte. Und das ist mir ganz, ganz wesentlich, weil ich glaube schon, dass das so ganz spezielle grundsätzliche Ordnungsmöglichkeiten sind von dem, was unsere Welt ausmacht." ↑