

New Music and Aesthetics in the 21st Century

Published in Collaboration with the
Gesellschaft für Musik und Ästhetik

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Volume 6

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Counterparts

For Lucas Fels

"And again, once the alien is familiar,
Something familiar now becomes alien.
I have become an *object* unto myself.
It is another that thinks and acts in me."
(Jason, in Franz Grillparzer, *The Golden Fleece*)

I. Prelude

The prelude in Johan Sebastian Bach's first cello suite realizes harmony. Even though the tension between the free force fields of the piece—melody, harmony and sound material (or more fittingly: the instrument)—becomes considerably more intense in the course of the piece, the unity of the three is never seriously questioned. The conflict between harmony and melody dominates. As a level of compositional meaning, the instrument as material is present almost only in the shape of the four open strings. All other elements of instrumental material—the bow and its specific acoustic qualities, pressure and speed of bow movement, bow position (*sul ponticello*, *sul tasto*), the rhythm of up- and downstrokes—are secondary, only serving to clarify the shapes characterized through melody and harmony.

The four empty strings are fundamental to the disposition of the piece, however: they provide the composition's harmonic foundation (the tonic is G, the dominant and double-dominant are D and A respectively, the subdominant is C). In addition, the sequence of pitches that develop into melody in the course of the piece originate from the open strings of the instrument. Three of the first four notes are open strings (Example 1).

Example 1: Johan Sebastian Bach, *Suite for solo violoncello*, BWV 1007, 1st movement, m. 1



Melody begins as a secondary aspect, an ornament: the neighbor note A₃ is the only melodic element in the progression of arpeggiated chords at the start of the piece. If one reads the melodies as an expression of the "ego" within the "chorale" of the harmonic progression, then this "ego" only speaks on the margins of the music. Melody, however, increasingly dominates the narration of

And even if the physical reality of the instrumental material is not exceeded, the B₁ which this low C is pushing towards appears virtually, as an expectation of resolution—a wonderful metaphor used by Bach for something that might lie beyond the real world.

The chromatic scale and an irresolvable seventh, however, constitute extremes in a musical order while remaining within it. Even if they cast a glance beyond its boundaries, the unity of material, melody and harmony is strained, but never abandoned.

II. Counterpoint

For me, composing means turning contradictions into sounds. Composing as the conception of an order, of semantic connections and construction, is secondary to the search for and realization of contradictions: making these contradictions audible and compositionally fruitful is the central aesthetic program. In my *Cello Counterpart*, this is the contradiction between melody (the linear shaping of pitches and rhythms) and the instrument's physique—meaning the whole sounding and playing apparatus, the open strings just as much as bow movement and bow pressure, not only the resonance body of the cello with its sonic characteristics, but also the physical conditions and possibilities of the player's hands and arms. Since the spectralists' work in sound analysis and Stockhausen's preceding work with sound shapes, if not indeed earlier, the notion of a clear separation between pitches, durations, timbres and dynamics has been recognized as a fiction—an occidental construct from a time in which people wanted to apply the same methods of cartography and analytical control to the world of sound as geographers were simultaneously applying to our planet. Timbre is always also harmony, rhythm is never entirely separate from the inner time of sounds, their attack and decay; and even what one perceives with such supposed clarity as "pitch" is an entire cosmos of diverse, layered vibrations, noise elements and dynamic changes at the temporal micro-level. Melody does not exist without sound, and the mutual influences between what are often called parameters is essential for the experience of musical shapes. I cannot, however, simply ignore the expectation—a culturally-based perceptual category of my time—that melody involves a linearity determined primarily through the categories of pitch and rhythm. Any alternative conception of melody will come into conflict with this expectation, and may even have to come to terms with it. I do not, however, wish to evade the conception of melody as a sonic narration; on the contrary, it is precisely the "other" lines, those that do not base their progression on predefined scale degrees, that interest me—melodies that shift their focus fluidly from pitches to attacks and decays, from rhythmic figures to intensity curves. (And this meta-movement of focus is itself a melody.)

The melodic starting material in *Cello Counterpart* (Example 4) was not developed from the instrument and was not brought into agreement with it, but was rather posited as a melody independent of the instrument. The “instrument,” on the other hand—and by this I mean all physical aspects of sound production not belonging to Western music’s primary parameters of pitch and rhythm—is not subordinate to the melodic structure, but rather is independent of it: the up- and downstrokes do not reinforce the melodic organization any more than the *crescendi* and *decrescendi* underline the pitch structure of the lines; the movements towards *sul ponticello* or *sul tasto* do not illustrate melodic drama with timbral “atmosphere,” but rather follow their own—independent—laws.

Example 4: *Cello Counterpart*, melodic material



The melody of *Cello Counterpart* is presented as a whole at the start of the piece. It does not develop from a cell—it does not develop at all, as it is not embedded in any melodic syntax with a view to development. It is too long to be a motive, but is sufficiently uniform in its reduction to minor and major seconds and (with a few exceptions) eighth and quarter notes not to be perceived as a series of individual motives. The melody is to be played entirely on the A string of the cello, and even if its manifestation without the bow (and right arm) as an “activator” remained purely virtual, it would still be the “left hand material,” as all the morphologically specific information of this melody is defined by the left hand.

This melodic material is subject to external forces, manipulations that I have referred to elsewhere as “filters.”² Here I distinguished between two levels of filter:

- a) temporal filters (excerpt length, time stretch, tempo)
- b) sonic, instrument-specific filters.

Filters of the first kind with a structurally constitutive meaning are above all the “sample length”—the excerpt of the original material appearing in the rep-

2 Hans Thomalla, “Aspekte Analytischen Komponierens,” in *Darmstädter Diskurse 1*, ed. Jörn-Peter Hiekel (Saarbrücken: Pfau Verlag, 2006).

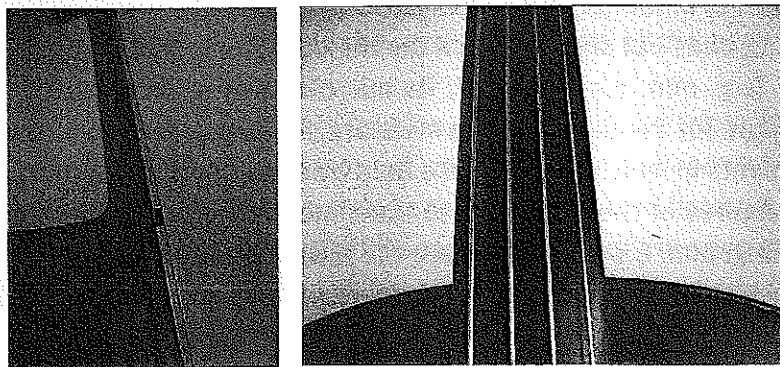
etitions of this melody—and the tempo, which determines the lengths of the eighths and quarter notes.

The sonic filters are all “right hand filters,” as they result from the activities of the right arm and the bow:³

1. Rhythm (up- and downstrokes)
2. Dynamics (bow pressure and above all bow speed)
3. Bow position (*sul ponticello*, *ordinario*, *sul tasto*)
4. Trembling (pulsing bow accents)
5. Excessive or insufficient bow pressure (the former results in scraping sounds, the latter in *flautando*)
6. Drones (sustained on the D string)

The “drone filter” has a particular significance in the piece that requires an explanation. A rubber wedge is placed under the D and G strings at precisely the point where the resulting pitch is a fifth higher; the D string thus becomes a second A string, while the G string, which is already tuned a semitone higher as the A flat string, now becomes the E flat string. The function of this wedge goes far beyond that of a mere cello capo, however: it makes the strings in question more resistant and when bowed, they take on a life of their own that can only be controlled with difficulty. With a bow position between *ordinario* and *sul tasto*, these strings sound at their fundamental pitches (2nd string A₃, 3rd string E_{b3}). If the bow is moved slightly closer to the bridge and pressure is reduced, the second partial of each string results—A₄ and E_{b4}, though approximately one quartertone higher. This microtonally distorted octave, produced through changes in the pitch and the vibration structure of the string, gives the string the character of a young boy’s voice breaking: the note often jumps to the falsetto register and back. The sound of both registers is smoky and less full than a “real” A string.⁴

Figures 1 and 2: position of the wedge under strings II and III



3 The “natural harmonic filter,” reduced left-hand finger pressure, is an exception.

4 All performers so far have therefore found this wedge an unpleasant “thorn in the cellist’s side” at first.

With its microtonally distorted octave, this filter strikes at the very heart of the melodic structure's formation; this "other" A creates uncertainty for the player and the listener. One A is not the same as any other A; the identity of the pitch, the prerequisite for any construction of meaning in Western music—like the comprehensibility of words in spoken language—dissolves into multiplicity. The fixed identity of pitch classes—constitutive for the syntax of Western music—is not replaced by other (microtonally expanded) identities, nor through finer divisions on the theoretically infinite scale of frequency differences, but rather the unpredictability of the prepared strings enable the listener to experience pitch identity temporally. Pitch becomes a transitional phenomenon that can never be entirely controlled, never entirely grasped, resulting from a change in the shaping of the sound with the right arm and bow, a change of bow position on the string, as well as the reduction or increase of bow pressure. At the same time, the open strings, which so often serve as a solid foundation for pitch relationships (whether as fifths in Bach's prelude or as basic elements of a chromatic pitch structure with *scordatura* tuning), become ambiguous—the foundation begins to drift away. The microtonality "wedged out" of the cello is no longer an extended chromatic pitch order that could function as a fixed syntax for the piece: the category of "pitch" as a rigid, immovable organizational principle is put into question through the distorted octave.

III. Narrative

Cello Counterpart is divided into two parts. The first part (figures 1-7, Examples 6-9) explores the confrontation between the two structural levels, melody and sonic apparatus. The filters follow their own scales of bow pressure, bow position or trembling frequency—scales whose values follow a series of prime numbers (2, 3, 5, 7, 11, 13, 17). The contradiction between the two levels is made fruitful by listening to the dialogues resulting between the two structures and allowing one to influence the other: those moments, for example, in which the drone string does not simply attack the melodic element, but rather becomes integrated (e.g. mm. 2.5 and 2.10), its microtonality influencing the melody's pitch structure for the duration of a measure, making music together with it; or those moments in which pulses make fluid transitions from the trembling and *bariolage* figures of the filter level to the minor or major second trill of the melodic level (e.g. mm. 6.1-6.5). These are the few moments in which the cello is not simply the melody's counterpart, but instead, through almost coincidental points of contact between the two levels, a different form of melody is glimpsed.

Both the filter level and the melodic level are subject to centrifugal forces in this first part of the piece; they are manipulated towards extremes. The melody is increasingly shortened, the excerpt (or sample length) is reduced to the

single pitch A. At the same time, the range of the *ritardandi* and *accelerandi* becomes ever smaller: while section 1 slowed down from quarter = 221 (17 x 13) to quarter = 17, the final section of the first part (section 7) progresses from quarter = 34 to quarter = 17.

The filters increasingly approach “full power,” ultimately reaching *ffff*, drowning out all nuances and details of the timbres and articulations—trembling, swells and *flautando* disappear in the sheer force of the bow on the string. The center of the piece is an anti-cadence on the two open A strings—the “genuine” A string as the endpoint of the melody, and the wedged second string, the drone filter. At that moment, when the composer (like the cellist) steps back and listens to the instrument itself, the melody and the filter coincide. The distinction between the melodic object (the A string as the endpoint of the melody) and the filtering of the object (the drone string) becomes obsolete.

The removal of the wedge, with its resulting opening of the lower cello string for melodic structures, begins the second part of the piece (figures 8-13). It is a tentative attempt at some form of melody conceived through the dialogue between the instrument and the pitch/rhythm structure: a narration that does not project an abstract melody onto an instrument, but whose progression is rather determined by the exploration of limits and the transitions of concrete instrumental material and melodic lines. In figure 8 this is the threshold between *bisbigliando*, trill, microtonal melodic step and trembling (Example 10). It is the search for a different form of melody, one of unsecured movement through the as yet uncharted territory between the instrument, with its specific sound-world, and the remains—or rather the memories—of conventional melody in the form presented as an object in the first part of the piece.

After the ninth section, which explores thresholds of linearity (boundaries of tempo and the fanning out of melodic elements across all registers), section 10 (Example 11) focuses on melody as a dialogue of natural harmonics (i.e., those pitches directly derived from the materiality of the instrument) and intervallic structures, taken from the opening melodies. The meta-melody of movements between *sul tasto* and *sul ponticello* does not simply color the harmonics, but in fact prepares the structural focus of the next section: harmony in section 11 (Example 12).

In the chords of this section, the double and triple stops are no longer a melody voice with a drone, but rather harmonic shapes whose intervallic structure opens a dialogue between the second-based harmony of the opening melody and the tritone- and fifth-based harmony of the open strings. The sequence of chords is determined by the movements from *sul tasto* to *sul ponticello* (and vice versa), changes of bow position, and the dynamic progression (pressure and speed of bow movement): these two “other lines” determine which strings can be played as a three-note chord (and which string must be left open for that purpose) so that the bow can reach all the strings as a triple stop.

Sections 12 and 13 effect a return to the counterpoint of the first part—no longer as a counterpoint between melody and sonic filter, however, but almost as a traditional counterpoint of two melodies. Here too, however, the dialogue between “the cello” as sound material and the fragmented melodies of the first part is obvious: even if the microstructures of the line in section 12 follow the second intervals of the first part (in section 13 the intervals are halved to form quartertones and semitones instead of the semitone and whole tone steps of the first part—the microtonality of the drone string leaves certain “reverberations” behind), the macro-form of the melody explores the cello as a sound body: the upper voice consists of natural harmonics moving increasingly towards the nut, further and further upwards: until the end of the instrument’s physical possibilities is reached and no harmonics can be made to speak anymore. The fingerings of the lower voice also move ever closer to the nut, but not played as natural harmonics: here the intervals become smaller and smaller until the boundary between vibrato and melody disappears (Example 13).

IV. Who is speaking?

This short analytical overview has made it clear that the conception of a composition as a sounding realization of contradictions extends to the fundamental structure of the piece’s musical language. There is no predefined language that determines the music’s syntax and semantics, produces shapes or defines the rules of its context. Rather, the narration of the piece arises from a confrontation between different expressive worlds—the melodic expressivity of the opening line and the material expressive world of the cello as a sound body. The contradiction between the two worlds, initially as a sometimes brutal confrontation, then later as a—literally—probing dialogue, is itself expressive; it speaks. The cello itself, however, with all its sonic characteristics, is speaking this language just as much as the composer. “I always try to develop some strategy to make the pictures cleverer than me,”⁵ Gerhard Richter once wrote. Composition as an attempt to make contradictions sonically fruitful aims for a musical language that is “cleverer” than the composer, that does not know in advance what will be “spoken” musically or how, but rather follows the dialogue between its own constructive stipulation (albeit drawing on culturally-conditioned musical rhetoric and personal experiences and memories) and the sonic properties of the physical material. Whereof this dialogue will eventually speak is, at the start of each compositional process, an open matter.

5 “Wer ist Gerhard Richter?,” in *Der Tagesspiegel*, 11/22/2004.

Example 5: Cello Counterpart, figure 1

rit. poco a poco

1

Eni, als benachteiligter Flügelspiel (Quartettgenosse) spielen
auf und abwärts mit Rhythmus im oberen System
auf und abwärts mit Rhythmus im oberen System
auf und abwärts mit Rhythmus im oberen System

rit. poco a poco

2

Auf und Abwärts mit Rhythmus im oberen System
Auf und Abwärts mit Rhythmus im oberen System
Auf und Abwärts mit Rhythmus im oberen System

rit. poco a poco

3

Example 6: Cello Counterpart, figure 2—dialogue between melody and drone filter

rit. poco a poco

1

Eni, als benachteiligter Flügelspiel (Quartettgenosse) spielen
auf und abwärts mit Rhythmus im oberen System
auf und abwärts mit Rhythmus im oberen System
auf und abwärts mit Rhythmus im oberen System

rit. poco a poco

2

Auf und Abwärts mit Rhythmus im oberen System
Auf und Abwärts mit Rhythmus im oberen System
Auf und Abwärts mit Rhythmus im oberen System

rit. poco a poco

3

Example 7: Cello Counterpart, figure 4 (end) —dialogue between trembling and melody

Example 7 is a musical score for the cello, consisting of two systems. The first system starts at measure 327 and ends at measure 344. It features a tempo marking of $♩ = 65$ (♩ = 170) and a dynamic of ppp . The score includes markings such as *molto sul pont.*, *accel.*, *rit.*, *molto fine.*, and *all. ff.*. The second system starts at measure 345 and ends at measure 352, with a tempo marking of $♩ = 67$ (♩ = 174) and a dynamic of ppp . It includes markings like *molto fine.*, *rit.*, *molto sul pont.*, and *all. ff.*. The notation shows a complex interplay of tremolos and melodic lines.

Example 8: Cello Counterpart, figure 6 —transition from trembling to bariolage to melody

Example 8 is a musical score for the cello, consisting of two systems. The first system starts at measure 65 (♩ = 170) and ends at measure 100. It features a tempo marking of $♩ = 65$ (♩ = 170) and a dynamic of ppp . The score includes markings such as *molto fine.*, *molto sul pont.*, *accel.*, *rit.*, *molto fine.*, and *all. ff.*. The second system starts at measure 101 and ends at measure 137, with a tempo marking of $♩ = 68$ (♩ = 174) and a dynamic of ppp . It includes markings like *molto fine.*, *rit.*, *molto sul pont.*, and *all. ff.*. The notation shows a transition from trembling to bariolage and then to a melodic line.

Example 9: Cello Counterpart, figure 7

The musical score for the Cello Counterpart, figure 7, is presented in three systems. The first system begins with a tempo marking of $\text{♩} = 54$ ($\text{♩} = 68$) and a dynamic of *rit.*. It features a complex rhythmic pattern with many sixteenth notes. A performance instruction reads: "Auf und Abwärts / Up and Down". The second system continues the rhythmic pattern with dynamics ranging from *ppp* to *mf*. A performance instruction reads: "dim. poco a poco". The third system includes a section marked "rit." and contains several performance instructions: "Voller Ton / Full tone", "Lauter / Loud", "Kell. mit hoher Hand / Kermuscheln (wachtelnd z.B. ans Spiel)", and "Wachelt nur mit der linken Hand (white right hand plays arco)". Dynamics in this section include *pppp*, *ppp*, *pp*, *mf*, and *ff*. The score concludes with a *pppp* dynamic and a final instruction: "Wachelt nur mit der linken Hand (white right hand plays arco)".

Example 10: Cello Counterpart, figure 8

8

♩ = 34 (♩ = 34)

pppp cresc. poco a poco

scordatura, senza vibrato, scordatura sentimento higher

Alzando il braccio sempre via Bogen
 Accenti sharper and clearer sempre tinge bow

ppppp and.

Example 11: Cello Counterpart, figure 10

10

♩ = 34 (♩ = 34)

con sordina

pppp cresc. poco a poco

scordatura, senza vibrato, scordatura sentimento higher

Alzando il braccio sempre via Bogen
 Accenti sharper and clearer sempre tinge bow

ppppp and.

Example 12: Cello Counterpart, figure 11

Example 13: Cello Counterpart, figure 12