Klangfarbenmelodie in 1911: Anton Webern's Opp. 9 and 10

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Introduction

In 1911, Arnold Schoenberg theorized *Klangfarbenmelodie* (timbre-melody) in his treatise *Harmonielehre* (Theory of Harmony). That same year, Anton Webern showed works to Schoenberg hoping his teacher and friend would find *Klangfarbenmelodie* in his new compositions. This paper examines Webern's works of 1911 in the context of Schoenberg's formulation of *Klangfarbenmelodie* and shows that Webern uses timbre as a primary compositional parameter in the manner Schoenberg theorized.

A critical reexamination of Schoenberg's music and theoretical writings reveals two definitions of *Klangfarbenmelodie*: (1) a timbre-melody, that is, the directed process of a timbral progression; and (2) a textural style of presentation akin to homophony or polyphony—a type of chromaphony (timbre music).[1] Timbral lines are similar to melodic lines; they are cohesive, autonomous constructive unities connected by their intrinsic values that move forward through the music. Once these timbral lines are arranged with a logic that satisfies, there is a new textural style of presenting music.

The intellectual history of *Klangfarbenmelodie* has been shaped (or misshaped) by critical reception that created two opposing definitions: (1) a quasi-static pitch with morphing timbres, and (2) the fragmentary, pointillistic distribution of linear pitch material among different timbres. Respectively, these notions are often characterized as the composition *of* timbres (*Komposition der Klangfarben*) and composition *with* timbres (*Komposition mit Klangfarben*), and associated with Schoenberg's "Farben" and Webern's works (Ligeti, 2007).[2] I refer to these ideas as static and dynamic *Klangfarbenmelodie*.

The static and dynamic notions of *Klangfarbenmelodie* may accurately reflect how some twentieth-century musical thinkers approached the concept, but they were not the views of Schoenberg or Webern (Zeller, 2020). Both notions are based on the critical response that characterized the two composers' works by their outward manifestations rather than the technique's foundations in musical logic. Static *Klangfarbenmelodie* stems from 1919 when Arnold Schering writes of Schoenberg's *Five Orchestral Pieces*, Op. 16, No. 3, "A certain chord remains immobile for a long time in *pp*, but receives an ever-changing color gradation from half-measure to half-measure" (Schering, 1919, p. 153). And the idea of dynamic *Klangfarbenmelodie* in Webern's music comes from Erwin Stein when he writes about the *Six Bagatelles for String Quartet*, Op. 9, in 1923: "…in the melodies, almost every tone is apportioned to a different instrument, almost every one in a different timbre (harmonics, pizzicato, col legno, etc.). … Schoenberg's idea of timbre-melodies may have been influential" (Stein, 1923, p. 15). Even in this early period of reception, however, some scholars saw through the differences in surface features to grasp the underlying structural aspects of Schoenberg's and Webern's *Klangfarbenmelodie*. Discussing the technique in 1919, Alfredo Casella notes that timbre acts in both the vertical and horizontal dimensions, something melody, harmony, and rhythm cannot do (Casella, 1924). Not only does Casella approach discerning Schoenberg's goal of combining the horizontal and vertical, he foresees a musical twentieth century guided by the beacon of timbre. And in 1924 Paul A. Pisk hints at understanding the concept as a textural principle when he writes, "The juxtaposition of different lines results in stratifications" (Pisk, 1924, p. 1023). Timbral lines creating textural stratification, if it becomes an organizational principle, is *Klangfarbenmelodie*. Unfortunately, historical precedent was set, and both the single-pitch and pointillistic conceptions have been largely attributed as the term's original meaning.

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[1] For a detailed discussion of *Klangfarbenmelodie* see Zeller, 2020, pp. 71–245; for discussion of chromaphony see pp. 4–6.
[2] Also discussed in Iverson, 2009.

The static and dynamic types of timbre-melodies can be techniques of creating a timbral progression, but they are just two of many possibilities. And if present, they must be an organizational principle in the musical logic of the work to create *Klangfarbenmelodie* the stylistic principle. In Schoenberg's estimation, new forms are needed. He writes, "…progressions of tone-colors would certainly demand constructions different from those required by progressions of tones, or of harmonies.… Quite different forms had to be produced by homophony and the art of counterpoint" (Schoenberg, 1975, p. 485). In actuality, the old forms remained, but timbre provided new ways of making them comprehensible.

Method

This presentation uses planal analysis to elucidate musical connections and draw out textural streams and timbral lines. The planes of planal analysis are analytical planes, though they often align with musical foreground and background in textural analyses.[3] Building upon Kathryn Bailey's work with tone-rows (Bailey, 1991), this paper uses musical block topography (Zeller, 2020) defined by both score-based analysis and auditory "chunking" (Goodchild and McAdams, 2018). The musical units I call blocks are one or more textural streams chunked into musically coherent parcels. Musical blocks are organized into textures with varying block topographies: monophonic, homophonic, or polyphonic, and combinations thereof. Block topographies describe the relations of the blocks themselves, not necessarily the internal content that forms each block. Planal analysis is then employed to illustrate the textural relationships of the blocks in however many analytical planes are dictated by the music. Since one of the Second Viennese School's goals was to combine the principles of homophony and polyphony, block topography becomes a powerful tool for analyzing this repertory. Another style of planal analysis employed in this presentation is timbral analysis, where each timbral line is rendered in its own plane.

Results and Discussion

Webern's timbral language: In his *Sechs Bagatellen für Streichquartett*, Op. 9, Webern removes the Bagatelles from the timbral identity of a string quartet, creating a new sound for "the new music" (Webern, 1975). Throughout all six of the Bagatelles there is a pervasive de-emphasis of pitch through playing technique. Above all, Webern's extensive use of *am Steg* (at the bridge or *sul ponticello*) is a concrete, physical move away from pitch primacy. Bowing at the bridge actually reduces the sound level of the fundamental frequency in comparison to its overtones.[4] Artificial harmonics also reduce the fundamental in favor of the much more prominent overtone of the fingered node. Webern regularly employs artificial harmonics with resultant tones two octaves above the stopped fundamental. They are still tones of definite pitch, but compositional weight is placed on the timbre over the pitch. If the pitch was all that was important there would be no need for the harmonics; the instruments could play the same absolute pitches in pure tones if Webern would have wanted that. Tremolo de-emphasizes pitch by creating a constant state of acoustic attack, eliminating the more stable sustain portion of the tone's ADSR spectrum. In combination with *am Steg*, tremolo at the bridge heavily masks the fundamental pitches sounded by the technique. Furthermore, Webern uses mutes extensively. Other playing techniques also work to elevate timbre over pitch in a more understated way. Playing at the fingerboard (*am Griffbrett*) changes the spectral characteristics of the tone. It does not reduce the fundamental in the same way playing at the bridge does, and correspondingly, is not employed with the same regularity. When used, it moves the sound away from prototypical unmodified arco tones, yet it allows a certain degree of continuity with the "normal" arco tones (muted) that Webern employs. Finally, Webern's instruction *an der Spitze*—at the tip [of the bow]—shows the familiarity he had with string instruments and his incredible insight into timbral control. By playing at the tip of the bow, its weakest point, additional bow pressure may be required from the performer. This increase in pressure also increases the amount of bow

[3] For more on planal analysis, see Zeller, 2020.

[4] Physicist Joe Wolfe has shown that the second, third, fourth, and sixth harmonics are much more prominent than the fundamental in at the bridge bowing (Wolfe, 2020).

noise present at the beginning of each stroke. Playing at the tip is yet another, more subtle way to understate pitch.

Op. 9/5: There are two levels of structural organization in the Fifth Bagatelle—timbre and pitch. A monophonic chain of nine sequentially presented musical blocks comprises the movement (Example 1). Within each block there is a homophonic texture presenting a complete aphoristic musical phrase consisting of a timbral idea, dynamic swell, and unique tetrachord—except Block 8 which is polyphonic. The result is a series of clearly audible, distinct phrases, usually separated by rests. Locally, each block contains an aphoristic *Klangfarbenmelodie* statement, each phrase is a microcosm of a larger musical universe. The movement's form is binary, defined by two complete aggregates of chromatic saturation. In addition, the structure has two concise closing statements: a reflecting statement (x) and a coda (c), resulting in an ABxc form.[5] Speaking specifically about Op. 9 in his 1932–33 lectures, Webern said, "The most important thing is that each 'run' of twelve notes marked a division within the piece, idea, or theme" (Webern, 1975, 51). In the Fifth Bagatelle, each phrase block contributes to the aggregate, and when the chromatic "run" is complete, so too is the large-scale formal unit. The chromatic aggregates provide the skeletal structure, but not the substance of Webern's music. They are the blank canvas stretched across a frame, waiting for the artist's paint. Rendered upon that structure are tetrachords and timbres, and these swells of sound make the aggregates comprehensible as a form.

The Fifth Bagatelle expands timbral-registral space with arco timbres escaping from their encapsulation within those of *am Steg* (at the bridge), to the sounds of pizzicato's exodus from its containment between arco tones (Example 2). Globally, the nested wedges created by the timbral lines delineate the formal divisions of the pitch aggregates. The *am Steg* line matches the aggregates' compositional pacing and divides the binary form. Spanning across the work, a wedge of registral expansion echoes the formal units outlined by the timbral wedges (Example 3). Unity throughout the pitch and timbre domains reinforces the work's cohesion.

Op. 10/1: Symmetry is an important aspect of Webern's musical language, and his *Klangfarbenmelodie* works are no exception. In the First of his *5 Stücke für Orchester* (Op. 10), Webern composes the work's symmetrical form through a continuously unfolding timbral process. Rather than a pitch construction, in this case, the axis of the symmetrical form is the timbre of the brass choir in mm. 6–7.[6] Expanding outward, the structural timbres on either side of the axis are: flutter-tongue flute in m. 8–9 mirroring the flute over celesta trill in mm. 4–5; glockenspiel in mm. 9 and 2; harp in mm. 9 and 1; celesta colored with bowed string harmonics in mm. 10 and 1; and the harp in mm. 10 along with the trumpet in m. 12 mirroring the trumpet combined and harp in the anacrusis (Example 4). Webern reinforces the axial timbre by highlighting muted trumpet at the beginning, mid-point, and end of the form, providing an anchor for the symmetrical form's timbral progression.

A loose symmetrical pitch process also exists, but it is not nearly as well-defined as the strict timbre process, and it lacks the structural vigor to be convincing as a form-bearing element. There is one complete aggregate of chromatic saturation in the work; however, it does not provide structure as it did in the Bagatelles. Particularly noteworthy, however, is that the timbre blocks that make up the body of the work are composed of sets of nine of the twelve tones. As with the tetrachords in Op. 9/5, the nonachords are not structural in this movement, but they are a way of organizing pitch for Webern, and they do have structural implications for the other movements. Op. 10/1 radically minimizes pitch-structure to the point of not allowing it to create the architecture of the work. Timbre's rigorous organization, on the other hand, clearly indicates that it was Webern's primary organizational parameter in the composition of this movement.

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[5] For a discussion of reflecting statements in Webern's music see Zeller, 2020, pp. 198–221.

[6] "Axis of symmetry" usually refers to the midpoint of vertical pitch distribution in post-tonal theory. Here, the brass choir is not an axis of hierarchical timbre space, it is the axis around which a symmetrical form unfolds.

In the First Orchestral Piece, Webern actively engages with the orchestral tradition from which he is in the process of breaking away. The homophonic texture created by sections of instruments in Blocks 2 and 3 becomes a polyphonic voice as a unit that is then entwined in polyphony with the independent main line in Block 1 (Example 5). Webern finds another way to create the happy mixture of presentation styles. The rigid timbral structure of this movement is consistent, well-formed, and logical.

Representational of Webern's works of 1911, Op. 9/5 and 10/1 show two compositional strategies employing timbre in directed compositional processes—timbre-melodies—that convey clear musical ideas. *Klangfarbenmelodie* is the stylistic presentation of a musical idea by conveying its musical logic through timbre. Schoenberg's concept, and Webern's application of it, nourished the nascent chromaphony of the twentieth century. Schoenberg and Webern did not have diverging notions of *Klangfarbenmelodie*, that belief was created by critical reception after the historical schism of World War I. Webern's aphoristic works display an unprecedented adherence to timbre-based composition. Cohesive timbral statements are defined by strict musical logic developed within each work. In the historical moment of pre-War expressionism, *Klangfarbenmelodie* was one path to the new music the Second Viennese School explored.

Musical examples discussed in this presentation can be found at www.matthewzeller.com/timbre-2020.

References

Bailey, K. (1991). *The Twelve-Tone Music of Anton Webern: Old Forms in a New Language*. Cambridge: Cambridge University Press.

Bregman, A. S. (1990). *Auditory Scene Analysis: The Perceptual Organization of Sound*. Cambridge: MIT Press.

Casella, A. (1924). *L'Evoluzione della musica* (Anonymous, trans.). London: J. & W. Chester. (Original work published 1919).

Cramer, A. (2002) Schoenberg's *Klangfarbenmelodie*: A Principle of Early Atonal Harmony. *Music Theory Spectrum* 24(1), 1–24.

Goodchild, M. & McAdams, S. (2018) Perceptual Processes in Orchestration. In E. Dolan & A. Rehding (eds), *The Oxford Handbook of Timbre*. Oxford: Oxford University Press. DOI: 10.1093/oxfordhb/9780190637224.013.10.

Iverson, J. (2009). *Historical Memory and György Ligeti's Sound-Mass Music 1958–1968*. (Doctoral diss.). University of Texas, Texas.

Ligeti, G. (2007). Eine Neue Wege im Kompositionsunterricht. In M. Lichtenfeld, (ed), *Gesammelte Schriften I* (131–56). Mainz: Schott. (Original work published 1968).

Pisk, P. (1924). Die Moderne seit 1880: Deutsche. In G. Adler (ed), *Handbuch der Musikgeschichte* (pp. 1002–38). Berlin.

Schering, A. (1919). Die expressionistische Bewegung in der Musik. In *Einführung in die Kunst der Gegenwart* (pp. 139–61). Leipzig: E. A. Seemann.

Schoenberg, A. (1975). *Style and Idea: Selected Writings of Arnold Schoenberg* (L. Stein, Ed., L. Black, Trans.). London: Faber and Faber.

Schoenberg, A. (1978). *Theory of Harmony* (R. E. Carter, trans.). Berkeley: University of California Press. (Original work published 1911).

Schönberg, A. (1911) *Harmonielehre*. Vienna: Universal Edition.

Stein, E. (1923). Alban Berg-Anton v. Webern. *Musikblätter der Anbruch* V, 13–16.

Webern, A. (1975). *The Path to the New Music*. (Willi Reich, ed., Leo Black, trans.). New York: Universal Edition. (Original work published 1960).

Wolfe, J. (2020). *Articulation and vibrato on the violin.* University of New South Wales, Sydney. https://newt.phys.unsw.edu.au/jw/violinarticulation.html#sulponti.

Zeller, M. (2020). *Planal Analysis and the Emancipation of Timbre: Klangfarbenmelodie and Functional Orchestration in Mahler, Schoenberg, and Webern*. (Doctoral diss.). Duke University, Durham.