

Parcours de l'oeuvre: Georg Friedrich Haas

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<https://brahms.ircam.fr/georg-friedrich-haas#parcours>

Though nearly all of Georg Friedrich Haas's works draw extensively on tones outside the familiar twelve-tone chromatic scale, the composer resists allowing his use of microtonality to define his aesthetic:

“I am not really comfortable with being pigeonholed as a ‘microtonal composer.’ Primarily I am a composer, free to use the means needed for my music. There is no ideology regarding ‘pure’ intonation, either as Pythagorean number mysticism or as a notion of ‘Nature’ determined by trivial physics. I am a composer, not a microtonalist.”¹

For Haas, microtonality is a means to an end, not a goal in itself. He draws on a wide range of different theoretical approaches to pitch organization, which are freely combined and contrasted to singular dramatic effect. Haas has been notably reluctant to formalize his microtonal tools into a single overarching system. Such system building was a primary preoccupation of microtonal composers in the earlier decades of the twentieth century and led to such texts as Alois Hába's 1927 *Neue Harmonielehre des diatonischen, chromatischen, Viertel-, Drittel-, Sechstel- und Zwölftel-Tonsystems*, Ivan Wyschnegradsky's 1932 *Manuel d'harmonie à quarts de ton*, and Harry Partch's 1947 *Genesis of a Music*. For these composers, a prerequisite to microtonal composition was the development of a coherent and logical theory, which would constrain and support their musical discourse as surely as classical tonality.

In this context, Haas's theoretical eclecticism is a notable departure. His music combines ideas inherited from European microtonalists like Wyschnegradsky with inspirations from the Second Viennese School (particularly Anton Webern), the French *école spectrale* (Gérard Grisey and Tristan Murail), and American experimental composers working in pure intonation (Harry Partch, La Monte Young, and James Tenney). In works like *Torso* (1999-2000/2001), based on Schubert's unfinished Piano Sonata in C major, and *Sieben Klangräume* (2005), “accompanying the unfinished fragments of Mozart's Requiem,” his music has engaged with the great composers of the Austrian tradition through recomposition and quotation.

Haas's music revels in the dramatic contrasts between these opposing sound worlds, often staging Manichaean contrasts of light and dark, consonance and dissonance. In its focus on intense moments of transcendence and timelessness, his oeuvre recalls the mystical tradition of Alexander Scriabin and Ivan Wyschnegradsky. The use of microtones contributes in important ways to the manipulation of the flow of musical time, sometimes establishing moments of perfect stillness through pure acoustical tunings, sometimes exploring the inner turbulence of a single sustained sound through microtonal juxtapositions and interference effects.

A formative influence on Haas was the reclusive Italian composer Giacinto Scelsi (1905–88), also a touchstone for the French spectralists Gérard Grisey and Tristan Murail. Scelsi's music emerged from a

¹ Bálint András VARGA, « Interview with Georg Friedrich Haas », dans *Three Questions for Sixty-Five Composers*, Rochester, University of Rochester Press, 2011, p. 102.

unique method of composing, with improvised tapes translated into score form through collaboration with hired transcribers. His *Quattro pezzi per orchestra (ciascuno su una nota)* (1959) each focus on a single pitch (with occasional octave duplication) and its immediate neighbors, elaborated by the blurring effect of adjacent quartertones (a technique Haas terms *Klangspaltung* or sound-splitting).

“I realized that he shaped sonority ‘as such,’ purely as a sounding process, evolving instant by instant. Those apparently freely-flowing spaces where the difference in the richness of beat in more or less neighboring tones creates a depth and an intensity which for me, up to that moment, had been ‘unheard of,’ gripped me—I sensed the necessity to take up in my work where Scelsi had left off.”²

While traditional musical syntax built larger structures out of discrete smaller parts, Scelsi’s music presents a single wash of sound: the individual instruments of the ensemble merge into a single complex sonority, gradually changing over time. Haas’s music shares the rich, blurred harmonies of Scelsi’s compositions, their slow development and gradual crescendos to intense climaxes.

Sonority and sound mass

The concern for “sonority ‘as such’” that Haas recognized in Scelsi’s music was part of a broader tendency in twentieth-century music, as seen in such “sound mass” compositions as Krzysztof Penderecki’s *Threnody for the Victims of Hiroshima* (1959) or György Ligeti’s textural works like *Atmosphères* (1961), which built complex clouds of sound out of the superposition of dozens of strictly imitative canonic lines (micropolyphony). Haas’s fascination with Ligeti’s sound-mass techniques is apparent in the first of his *Trois Hommages* (1984), a tribute to the Hungarian composer. A closer look at the piece, among the earliest works still recognized by the composer, offers an insight into Haas’s musical forebears and his compositional language of the 1980s.

The *Trois Hommages* are written for a single pianist playing two pianos tuned a quartertone apart; each piano’s pitches fill in the gaps between the keys of the other, allowing twenty-four equally spaced tones per octave instead of the usual twelve. Numerous composers have written for similar setups of two pianos, including Charles Ives, Alois Hába, and Ivan Wyschnegradsky, a significant influence on Haas’s thought.

The score of the *Hommage à György Ligeti* consists of 160 chords written in unadorned whole notes; one must refer to the performance notes to understand the actions prescribed for the pianist. The sustain pedals of each piano are depressed throughout the piece, letting the full array of strings resonate as each chord is repeated in *fortissimo* at a constant, throbbing pulse. The performer can choose how long to remain on each chord. Transitions between chords are made by crescendos and diminuendos, with new notes fading in “as imperceptibly as possible” and dropped notes vanishing just as gradually. The apparent simplicity of the score, as illustrated by the excerpted whole notes of **Figure 1a** (from the beginning of page 3) gives rise to a surprisingly rich sonic result. In his preface to the score, Haas writes out in full a sample rendition of the passage, including the smooth transitions between chords as individual notes fade in or out (**Figure 1b**).

² *Ibid.*, p. 103.

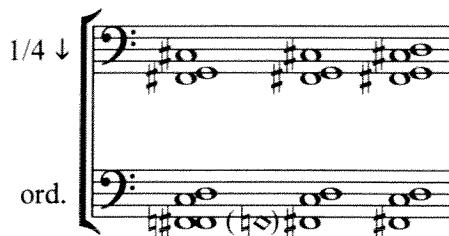


Figure 1a: Excerpt from Haas's *Hommage à György Ligeti*, beginning of page 3

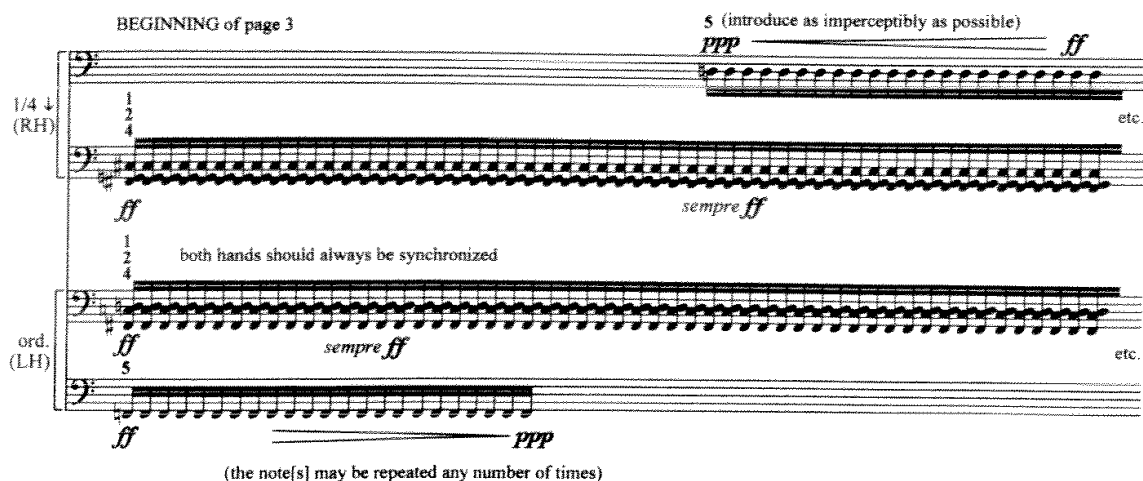


Figure 1b: Haas's sample realization of the passage in Figure 1a

The overtones and swirling resonances set in motion by these pounding low-register chords create a sonic environment far more complex and varied than the simple notation of the work might suggest. As in Scelsi's music, the intense focus on a single held or repeated sonority allows a kind of "hearing inside" the sound—as musicologist Lisa Farthofer writes, this "hearing inside" (*Hineinhören*) "opens a world full of overtones, beats, microintervals, a soundworld outside the twelve tempered semitones, in which a musical microcosm can expand into a sonic microcosm".³

As the piece progresses, the piano chords trace a slowly rising trajectory into the instruments' highest register, passing through occasional major or minor triads (often slightly discolored by a quartertone neighbor). The use of consonant triads (long anathema to modernist composers) in an atonal context reflects Ligeti's own engagement with traditional harmonic materials in such works as the finale of *Le grand macabre* (1974–77) or the *Trio for Violin, Horn and Piano* (1982). Ligeti and Haas share not only a fascination with the plasticity of sound itself, but also a suspicion of strict theoretical systems and an explicitly non-dogmatic, pluralist approach to composition.

In addition to Scelsi and Ligeti, one can also hear echoes in the *Hommage à György Ligeti* of La Monte Young's gargantuan *The Well-Tuned Piano*, with its slow pacing and dense climaxes, in which flurries of notes on a retuned piano project unique timbral effects, often mimicking bells or gongs. The fascination with gradual change and the complex inner lives of musical sounds suggests further affinities to the French *école spectrale* and compositions by Gérard Grisey and Tristan Murail, whom Haas met in Darmstadt in 1980.

³ Lisa FARTHOFER, *Georg Friedrich Haas: Im Klang denken*, Saarbrücken, PFAU-Verlag, 2007, p. 9.

Freedom and constraint

The fascination with sonority in Haas's works of the 1980s and early 1990s coexisted with a predilection for strictly conceived structures—indeed, the Ligeti *homage* is followed by pieces dedicated to Steve Reich, the American minimalist and pioneer of process-based forms, and Josef Matthias Hauer, the Austrian composer who developed (independently of Schoenberg) a method for composing with all twelve pitches of the chromatic scale. Even in the Ligeti *homage*, a close examination reveals the frequent use of strict canon underlying the turmoil of the sonic surface.

Haas describes a significant loosening in his working methods in the mid 1990s, starting with “... *Einklang freier Wesen ...*” and an associated group of works all titled “... *aus freier Lust ... verbunden ...*” (1995/96). The titles are quotations from a rhapsodic excerpt of the 1797–99 novel *Hyperion* by Friedrich Hölderlin, an author who is a recurring reference point in Haas's oeuvre and the inspiration for the chamber opera *Nacht* (1995–96/1998) and the “concerto for light and orchestra” *Hyperion* (2006).

“I believe that we exist through our own being; and only by virtue of our free will and desire (*aus freier Lust*) are we intimately bound (*verbunden*) to the cosmos. [...] What would this world be, were it not a unison of free beings (*Einklang freier Wesen*), were life not the full-voiced expression of every living being's joyous desires since the beginning of time?”⁴

Each individual part of the ten-piece ensemble of “... *Einklang freier Wesen ...*” can be performed separately as a solo piece, under the title “... *aus freier Lust ... verbunden ...*”—Haas also allows these pieces to be combined into certain subsets of the full ten-piece ensemble (e.g., a trio for viola, cello, and contrabass or a quartet for bass flute, bass clarinet, and two percussionists). The composer describes this work as a breakthrough in his compositional approach, a move away from serial approaches to embrace a much more intuitive method of composition.

“I had always taken mathematical processes as a background... Then came “... *Einklang freier Wesen ...*” where I posed myself the absurd assignment of writing ten solo pieces, which could together result in an ensemble piece. I began to compose, then realized that if I continued such constructions in this context, I would be overwhelmed. And thus I worked completely freely, only defining harmonic fields. How long these lasted and how they transformed, I decided freely every time—and to my surprise discovered that it worked well.”⁵

Examining his own desire to justify every aspect of his music through strict mathematical processes and proportion, Haas came to realize “that it is absurd and that music isn't defined by the golden section and exponential equations, but rather through imagination, which *despite* the golden section and equations is still what produces the music” (Farthofer 63–64). The modular form of “... *Einklang freier Wesen ...*” suggests a formal openness reminiscent of works from the 1950s by the New York School composers Earle Brown and Morton Feldman, or the contemporaneous open-form works by European composers like Karlheinz Stockhausen.

Microtonal explorations

The new-found freedom of “... *Einklang freier Wesen ...*” marks the beginning of an explosion of compositional activity in a wide range of genres, including concertos for violin (1998), violoncello (2004), piano (2007), and baritone saxophone (2008), large ensemble works such as *in vain* (2000) and

⁴ Friedrich Hölderlin, *Hyperion*, vol. 2, book 2, chapter 27.

⁵ Farthofer, *op. cit.*, p. 133.

Hyperion (2006), the operas *Nacht* (1998), *Die schöne Wunde* (2003), and *Melancholia* (2007), and numerous chamber works including seven string quartets.

As Farthofer notes, Haas’s music of the 1990s begins to show an increased interest in microtonal resources including “composed-out beats, sound-splitting, and difference tones.” This fascination with acoustic and psychoacoustic phenomena was inspired in part by the composer’s encounter with computer music and a sojourn at IRCAM in 1991. Compared to the relatively limited use of microtones in “... *Einklang freier Wesen* ...”, the String Quartet No. 1 (1997) represents a significant leap into a fully microtonal conception, based on the just-intonation intervals of the overtone series. An interval in just intonation projects a simple ratio between the frequencies of its two pitches: the ratio of a just-intonation perfect fifth, for example, is $3/2$, and a just major third is $5/4$. The acoustical purity of pitches in these simple-ratio relationships was already recognized by the ancient Greeks: the simple ratio between the frequencies allows the precise alignment of the overtones of the two pitches, minimizing acoustical roughness and interference. Today, equal-tempered tuning, which slightly alters the just intervals for greater flexibility in modulation and transposition, has largely replaced just intonation, though it can still be heard in period-ensemble performances of Medieval and Renaissance vocal works.

The String Quartet demands the retuning of the instruments’ open strings based on four just-intonation dominant seventh chords, the sonority formed by the first eight harmonics of the overtone series. **Figure 2** shows how the four pitches of each seventh chord are distributed among the instruments of the quartet.

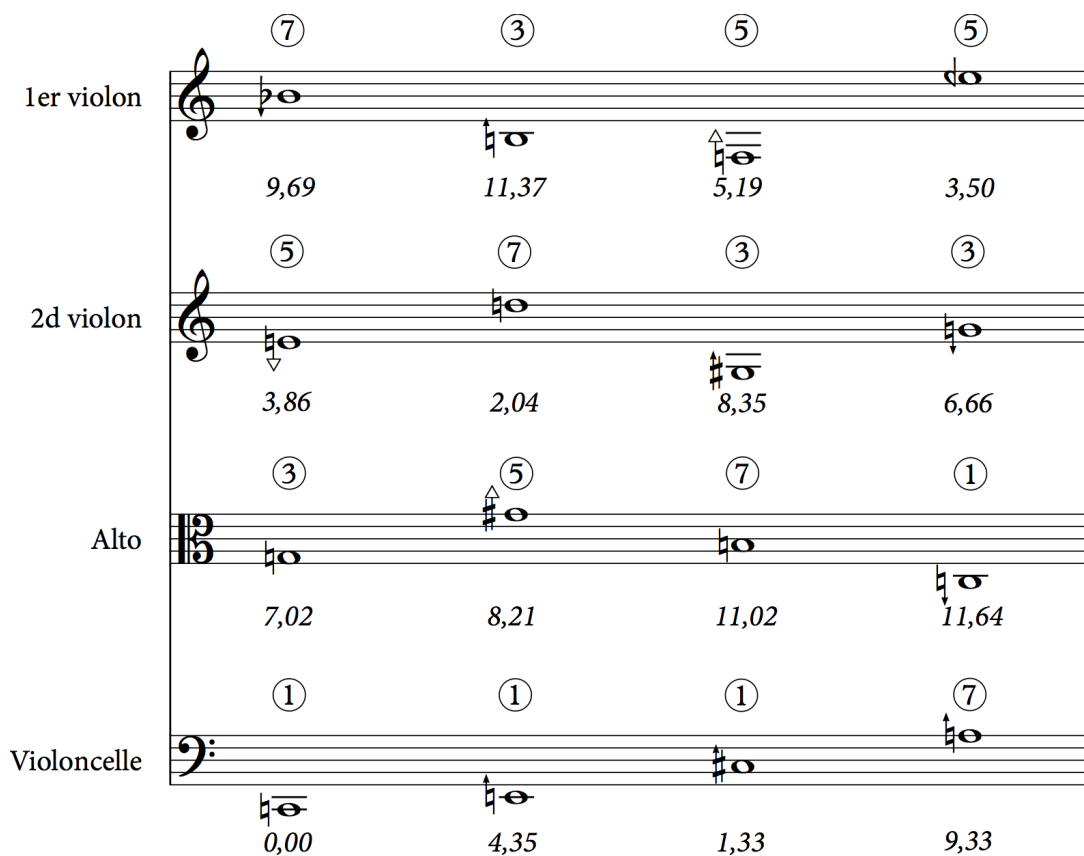


Figure 2: Tuning of each instruments' open strings in Haas's String Quartet No. 1 to produce four just-intonation dominant seventh chords. Circled numbers represent the position of each note in the harmonic series, with the tuning of each pitch indicated in semitones above *do*.

The careful tuning of the open strings allows the quartet to accurately reproduce the precise intonation of each chord at any point during the piece. The roots of the chords (shown below) are also related to one another by just-intonation ratios.

do ±0 cents

mi +35 cents, a frequency ratio of 9/7 (a wide major third) compared to the cello's low *do*

do# +33 cents, a frequency ratio of 54/25 (a wide minor ninth) compared to *do*

do -36 cents, root in the viola—a frequency ratio of 96/49 (a slightly narrow octave) compared to *do*

The first section of the piece is written exclusively using the harmonics of the open strings—with a “flageolet” technique, the players touch the string gently at simple fractions of its length ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, etc.) rather than fully stopping the string, forcing the string to vibrate in thirds, fourths, fifths, etc. and producing higher sounds at vibratory frequencies that are whole number multiples of the open string's frequency. Since each of the sixteen open strings of the quartet is tuned differently, and overtones up to the ninth can be coaxed from each string, there are an enormous number of possibilities for microtonal combination, resulting in “finely differentiated, irregular microtonal scales,” sometimes with up to six subdivisions of a single tempered semitone. These scales form the essential material of the beginning of the piece: at first, we hear complex combinations of harmonics rather than the simple just intonation chords underlying the strings' tuning.

Just-intonation seventh chords drawn from a single overtone series emerge only later in the piece, as brief moments of sonic purity and stillness amidst the unstable microtonal materials. These pure harmonies come to dominate the texture, appearing as soft, ethereal high register chords. However, this repose is only temporary: soon after, aggressively attacked double-stops overwhelm the texture, projecting harsh dissonances. When the just-intonation seventh chord returns, its purity is deliberately sullied by carefully notated microtonal blurrings around each note (another instance of Haas's technique of *Klangspaltung*). The corrupted seventh chord ushers in a lengthy, chaotic passage in constantly climbing double-stopped glissandi. As Haas writes, “The transition between finely graded scales and glissando continuum is one of the essential materials of this piece.” Dualistic contrasts—whether between scales and glissandi, consonance and dissonance, or pure intonation and *Klangspaltung*—are an essential part of Haas's musical language from the 1990s to the present.

Light as a musical instrument—from *in vain* (2000) to *Hyperion* (2006)

Haas produced a number of important theoretical writings in the first decade of the twenty-first century, including “Fünf Thesen zur Mikrotonalität” (2001, “Five Theses on Microtonality”), “Mikrotonalitäten” (2003, “Microtonalities”—note the use of the plural), and “Mikrotonalität und spektrale Musik seit 1980” (2007, “Microtonality and Spectral Music since 1980”).⁶ The article “Mikrotonalitäten” is particularly interesting for its categorization of microtonal practices into four broad headings:

⁶ Voir les références bibliographiques de ces textes dans l'onglet Ressources.

1. Tempered divisions of the octave (or other intervals) into equal parts
2. Orientation to the proportions of the overtone series (just intonation)
3. *Klangspaltung* (sound-splitting, the use of near-unisons)
4. Aleatoric microtonality: prepared piano, percussion sounds, freely detuned strings, etc.

Instances of all of these approaches to microtonality can be found in Haas's own music, which takes a pluralist approach to microtonal writing rather than cleaving to a single theory. In a number of Haas's works, dramatic form arises from the opposition of different modes of pitch organization, particularly the contrast between equal-tempered divisions of the octave and the irregular (but acoustically pure) intervals of just intonation and the overtone series. Equal temperament is exemplified by "Wyschnegradsky chords" based on the Russian composer's idea of "espaces non-octaviants": these alternate tritones and perfect fourths (sometimes replaced by fifths), creating stacks of major sevenths or minor ninths. Due to the many near-octaves, these chords project a brittle, dissonant sonority, a sharp contrast to the "soft and melting" chords built on the overtone series, a sound world Haas associated with the American composers Harry Partch, James Tenney, and La Monte Young. This "tension between fusion and friction" has been essential to Haas's works since the mid 1990s: "For nearly two decades, I composed basically with only two chords. And I have not yet exhausted all the possibilities inherent in the relationship between them."⁷

The chamber orchestra piece *in vain*, perhaps Haas's best-known piece to date, is among the works based on the contrast between these two chord types. *in vain* begins with a constantly descending cascade of fast-moving notes in equal temperament, based on the alternating tritones and fifths of the Wyschnegradsky chord. Just intonation elements emerge gradually over the course of the piece, an opposition both conceptual and visceral to the equal-tempered materials of the opening.

The dramatization of musical oppositions of *in vain* is heightened by the use of the hall lighting. One might recall Scriabin's *Prometheus*, op. 60 (1910), which calls for a "light keyboard" (*clavier à lumières* or *tastiéra per luce*) controlling the projection of specific colors of light into the concert hall, reflecting aspects of the musical structure in the visual domain. In *in vain*, the central section of the piece takes place in complete darkness: the players perform loosely synchronized overtone-series chords in a descending and accelerating sequence, punctuated by isolated flashes of bright light. As the speed of the sequence increases and the hall lights come back up, the descending tones very gradually transform back to the equal-tempered cascade of the opening, "reviving content at the end of the work that had previously been believed overcome." Haas conceived the piece as a despairing reaction to the success of the far-right Freedom Party of Austria (FPÖ) in the 1999 elections: the warm just intonation of the darkened central section gives way to an oppressive return of the initial material, proving the promise of the overtone-series chords fruitless and "in vain."

A far more complex interplay between lighting and orchestra unfolds in *Hyperion* (2006), a "concerto for light ("*Lichtstimme*") and orchestra" developed in collaboration with the German artist Rosalie (<http://www.rosalie.de/deutsch/>), to whom the work is dedicated. As Haas writes in his [introduction to the work](#),

"Light is a musical instrument. Changing colors alter the perception of sounds. Temporally organized light functions like a silent percussion part."

⁷ Varga, *op. cit.*, p. 106.

In performance, a large-scale installation of lights takes over the traditional role of the conductor. The orchestra is divided into four groups (strings, wind, brass, keyboards, each paired with a single percussionist), arranged geometrically around the central audience. Each group is placed so that it can observe the changing patterns of light on the opposite wall of the room; through sudden changes, gradual dimming or brightening, or even a metronomic pulse, these changing patterns govern the temporal unfolding of the work. While the actual design of the lighting (including choices of color) is left to the discretion of the designer, the timings of each cue are carefully preprogrammed, “a machine which—once set in motion—inexorably runs its scheduled course.”

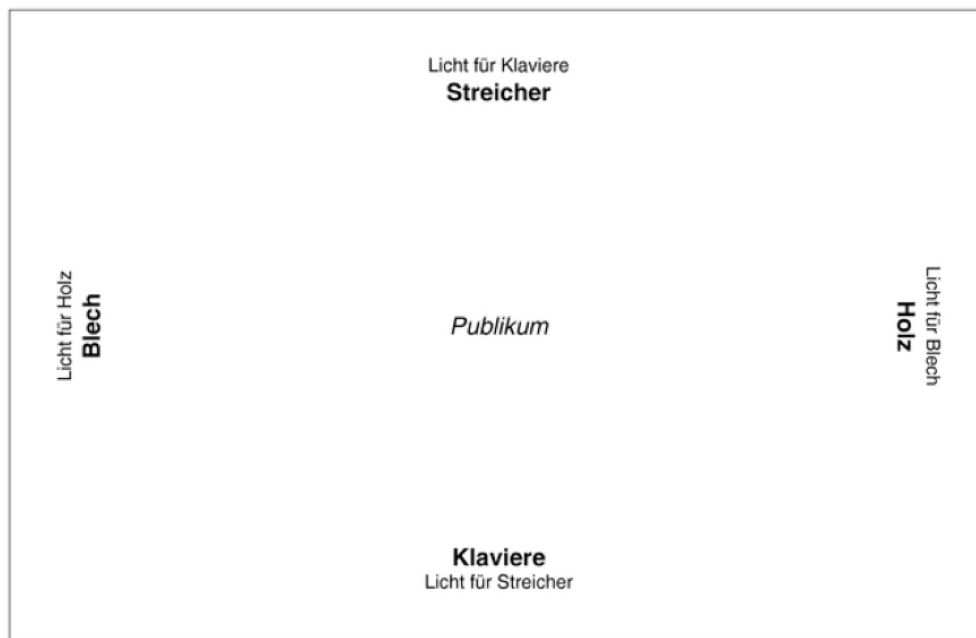


Figure 3: Orchestral layout in *Hyperion*

Like *in vain*, *Hyperion* is a music of oppositions: the harmonic language is again based on a “tension between fusion and friction,” between overtone chords and equal-tempered constructions. *Hyperion* also opposes the predetermination of the light’s timings against indeterminate writing for the instrumentalists, who have a limited freedom of choice in the precise alignment of their sounds against the cues of the light installation. As Haas writes, “the freedom of individually organized time is pitted against the organizational power of the machine.” Without the mediation of the conductor, “the people in the orchestra playing this music are alone with themselves and the light.”

Open form and improvisation

The indeterminate, aleatoric aspects of *Hyperion* reflect Haas’s long-term interest in the experimental tradition of the United States, including composers John Cage and James Tenney. A frequent concern of their music is a transfer of certain elements of decision-making from the composer to the performer, frequently through open-form works that unfold differently at each performance.

Haas’s third string quartet “*in iij. Noct.*” (2001) embraces this open approach while also incorporating his ongoing explorations of just intonation, “Wyschnegradsky chords,” and quotations of music of the past. The title refers to the third nocturn of the Holy Week Tenebrae service, during which candles are

gradually extinguished until the service ends in darkness. The quartet is to be performed in complete darkness, with even the emergency lights of the concert hall covered or extinguished. The players are separated spatially in the four corners of the room, and communicate only sonically with one another. The darkness is not merely a theatrical effect, but an intrinsic part of the work, allowing a “more precise and intense perception”:

“I want to move people with my music, and that succeeds more intensely and powerfully in the dark. The hearing becomes more aware, the listener surrenders much more to the sound.”⁸

The score consists mainly of text, with a sparing use of musical notation. The form of the work as well as many of the sonic details are left to the discretion of the performers, following an ingenious system of “invitations” linked to 17 sections (A-Q) plus a “beginning” and “end.” Each member of the quartet can issue a sonic invitation to the others for any of the sections (due to the total darkness, the members of the quartet can’t communicate visually). On hearing an invitation, another member of the quartet may either ignore it or accept it, by performing a pre-arranged signal. An acceptance triggers a controlled improvisation by the full quartet; ignoring the invitation allows space for other quartet members to issue invitations of their own.

Figure 6 is Haas’s sample realization of how one section—section C, “overtone chord, type 2”—might unfold. The second violin plays the invitation: a G plucked *fff* on the third string, and sustained *ppp* on the fourth. To accept the invitation, one of the other instruments must interpret the sustained note as one of the four pitches of a just-intonation seventh chord, and reply with another note of the same chord. Once one other performer has accepted the invitation, the remaining two join in to complete the chord. Chains of overtone chords can be unfolded, each taking the third or seventh of the preceding chord as a new root. At any time, members of the quartet can break off the section, moving on with invitations to new material.

Figure 4: Sample realization of section C (overtone chord, type 2) from *in iij. Noct.*

A focal point of the work is a quotation from Carlo Gesualdo’s *Tenebrae Responsoria* (1611, *Répons des Ténèbres*), to be played only once, and in the last quarter of the piece’s length. The composer requests the use of meantone intonation, with pure thirds and a distinct difference in size between small chromatic semitones (e.g. *do–do#*) and larger diatonic semitones (*do#–re*). In the unsettled

⁸ Farthofer, *op. cit.*, p. 46.

environment of the work as a whole, the emergence of the pure triads of the Gesualdo quotation “*wie aus der Ferne*” (as if from a distance) is an uncanny moment, at once familiar and unfamiliar.

Homages to other composers, such as this citation of Gesualdo and the previously discussed *Trois Hommages* (1984) and *Sieben Klangräume* (2005), remain an important strand in Haas’s works of the 2000s. Haas’s fascination with American experimentalism, particularly extended just intonation, is evident in *Open Spaces*, written in 2007 in memory of James Tenney (1934–2006). The work for twelve strings and two percussionists uses a scordatura reminiscent of Haas’s String Quartet No. 1 (see Figure 2), allowing the string players to play extremely precise harmonic relationships using open strings and artificial harmonics. The open strings of the ensemble are tuned either to an overtone series on C and a second, “shadow” overtone series a sixth-tone below. Many of Tenney’s long-term fascinations—drones, gradual processes, dynamic swells, glissandi, and the complex intervals at the upper reaches of the overtone series—are also essential to Haas’s aesthetic. *Open Spaces II* is a version of the work adapted for spatialized performance, with the two percussionists and two halves of the string ensemble separated into four distinct points in the hall. In one of Haas’s most complex microtonal works of recent years, *limited approximations* (2010), the object of tribute is Wyschnegradsky, specifically his *Arc-en-ciel* (1956) for six retuned pianos, each tuned a twelfth-tone from the next. Haas (who conducted the first performance of Wyschnegradsky’s piece in 1988) uses the six pianos as a concertino group supplemented by full orchestra. *limited approximations* presents a rich and flexible spectrum of pitches, enhanced by the ability of the piano ensemble to precisely strike any of seventy-two tones per octave. Haas’s favoured overtone-based and Wyschnegradsky chords are present, but any sense of strict dualistic opposition is blurred by clusters and clouds, by “processes of diffusion, clouding, friction” that allow a freely unfolding sonic landscape.⁹

Recent works

After previous professorships at the Hochschule für Musik in Basel and the Kunstuniversität in Graz, Haas relocated to the United States in September 2013 to join the composition faculty of Columbia University, occupying a post previously held by Tristan Murail. These recent American years are arguably the most productive period of Haas’s career, with an astonishing outpouring of new compositions ranging from intimate solos to operas and massive orchestral works.

Haas’s personal life became the focus of journalistic interest at the time of his marriage in 2015 to Mollena Williams (now Williams-Haas), a writer, performer, BDSM/kink educator, and storyteller. For the intensely private Haas, his “coming out” as the dominant member of a “master/slave” relationship brought a considerable notoriety in musical circles.¹⁰ The couple was the subject of the 2018 documentary *The Artist and the Pervert*, directed by Beatrice Behn and René Gebhardt. The composer’s prolific work from this period is marked by a greater engagement with political issues and, I would argue, a more urgent sense of expressivity.

⁹ Georg Friedrich HAAS, Note de programme : *limited approximations*, Universal Edition, 2015, <https://www.universaledition.com/georg-friedrich-haas-278/works/limited-approximations-13386>.

¹⁰ Zachary WOOLFE, « A Composer and His Wife: Creativity Through Kink », *The New York Times*, 24 février 2016, <https://www.nytimes.com/2016/02/24/arts/music/a-composer-and-his-wife-creativity-through-kink.html>

“The piece starts like a sentimental twelve-tone Kaddish. What I do technically, the process is, that this Kaddish is taking away the space to breathe. You are singing freely and the space gets closer and closer. And what I did technically is just to transcribe and transform the melodic elements into smaller intervals. As I reduce it, the melody is squeezed into 16th tones. The music is really very difficult, and Marco in this performance really is able to sing emotionally within these small intervals. There exists a *cantabile* in these 16th tones. And I still have this very traditional translation of a huge range of intervals describing the entity of the free world, and therefore it starts with the spaces between the lowest pitches of the trumpet and the highest, soft.”¹¹

Figure 5 shows how the intervals “constrict” and the twelve-tone dirge “becomes more and more smothered”¹² as the piece continues. At the outset, the smallest interval is a semitone, and all the larger intervals are multiples of this basic unit. By measure 25, the unit has shrunk to a third tone (0.67 semitones), which again serves as the building block for larger spans. With some switchbacks and detours, the melody gradually is reduced to a span of less than a whole tone (measure 82), with the smallest step a 16th tone. Throughout the piece, the dirge melodies are interspersed with long notes and quasi-improvised *altissimo* lines, taking advantage of the trumpet’s “extreme registers and changing colours” with the use of a variety of mutes.¹³ The result of the shrinking of the intervals is a palpable unease, but also a sense of mourning made all the more intense through the restricted means of expression.

HYENA (2016) is a collaboration with Mollena Williams-Haas, who draws on her expertise as a storyteller in a one-hour work for narrator and chamber orchestra.¹⁴ *HYENA* is autobiographical, and Williams-Haas describes it as “based on the section of my journey towards sobriety that deals with me being in rehab, and going through detox, and having a profound experience.”¹⁵ Her spoken text is harrowing but with brilliant flashes of humour. Rehearsal letter N (22:58) marks the first appearance of the eponymous hyena during the narrator’s first night in rehab. The hyena is at once a hallucination brought on by withdrawal and an avatar of the subconscious’s urge to drink—at first, it speaks cajolingly and seductively:

“We need to go. You’ve made your point. You went into rehab. You showed them you can do it. But now you’re taking it a little too far. I think we should leave. This is a *voluntary* program. And it would be SO delicious right now wouldn’t it? To go down to the bodega on the corner, wouldn’t it? To go put your ten dollars on the counter, wouldn’t it? To go get that fifth of Jack Daniels, wouldn’t it? To feel the delicious obliteration of that gleaming, sparkling whiskey as it brings you back to where you need to be with us...”

Haas’s music has integrated lessons in cueing from open-form pieces like *in iij. Noct.*, which means that the narrator is not bound to a strict timeline, but that the ensemble can move on or repeat segments to synchronize with the pace of the spoken text. The result is a score which is primarily linear, but with some *ossia* passages allowing flexibility. The harmonic motion is summarized in **Figure 6**, which shows how common tones in the upper voices regulate the just-intonation intervals from one

¹¹ George E. LEWIS, Georg Friedrich HAAS, et Marco BLAAUW, « I Can’t Breathe : A Virtual Dialogue », NewMusicBox, 20 novembre 2020, <https://nmbx.newmusicusa.org/i-cant-breathe-a-virtual-dialogue/>

¹² Georg Friedrich HAAS, Note de programme : « I Can’t Breathe », Universal Edition, 2015, <https://www.universaledition.com/georg-friedrich-haas-278/works/i-can-t-breathe-13965>

¹³ *Ibid.*

¹⁴ A full recording of *HYENA* by the Talea Ensemble conducted by Jeffrey Means is available on Williams-Haas’s website: <https://www.mollena.com/hyena/>. Timings in the text refer to this version.

¹⁵ Beatrice BEHN and René GEBHARDT, *The Artist & The Pervert*, Limonero Films, 2018, 1:10:13.

bass note to the next, each with its own overtone-series chord.¹⁶ As in Figure 2, the circled numbers represent the position of each note within the harmonic series of its bass note, and arrows indicate the reinterpretation of each held note in a new harmonic context. Even though the intervals between bass notes invoke complex ratios and unfamiliar microtonal intervals, the progression is closed: it ends near where it began, just a perfect fifth away. The final A-flat (7.02 semitones from the initiating C-sharp) is essentially back in equal temperament and becomes the bottom pitch of a low-register chromatic cluster in the following section.

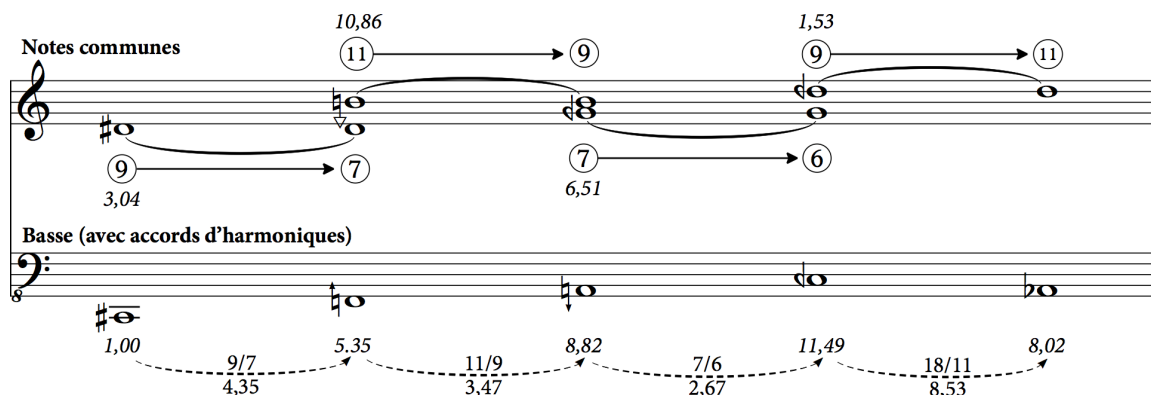


Figure 6: *Hyena*, rehearsal letter N: overtone chords linked in just intonation by common-tone pivots.

After a brief passage of low chromatic clusters at rehearsal letter O, a new series of overtone chords begins at P (25:37). Shifting tactics, the hyena’s tone shifts from beguiling to brutal, urging the narrator towards a relapse into drinking or even suicide.

“What do you have to live for really? Your family? They don’t really care and in fact you being gone would give them a good opportunity to close that filthy chapter in their lives. Your friends? Who is left?”

While the passage at N used a variety of intervals, from rehearsal letter P to U the same interval of 7/5 (5.83 semitones) is repeated up to seven times (the final two steps are optional in case the narration needs more time)—see **Figure 7**. Unlike the previous passage (Figure 6) which circled back towards its starting point, this progression is open-ended. The bass notes succeed one another by intervals of a slightly flat tritone, resulting in the interweaving of a G gradually flattening one sixth-tone at a time towards F# and a slightly flat D-flat similarly drifting downward to a slightly flat C. There are no musical points of orientation here, perhaps suggesting the narrator’s disorientation and vulnerability. In just intonation terms, the seven-fold iteration of the same interval results in the eye-poppingly complex ratio of $(7/5)^7 = 5,764,801/390,625$, distant indeed from the starting point. This time there is no harmonic link with the next section: rehearsal letter V begins afresh with chromatic scales in quasi-glissandi, describing the nausea and shakes of alcohol withdrawal. Many of the musical devices of *HYENA*—overtone chords, clusters, glissandi, stacked tritones and fourths—are familiar from other works by Haas, but in their close pairing with Williams-Haas’s narration, they take on a new expressive specificity.

¹⁶ For a discussion of similar procedures in Haas’s earlier works, see Robert HASEGAWA, « Clashing Harmonic Systems in Haas’s *Blumenstück* and *in vain* », *Music Theory Spectrum* 37/2, 2015, pp. 204–23.

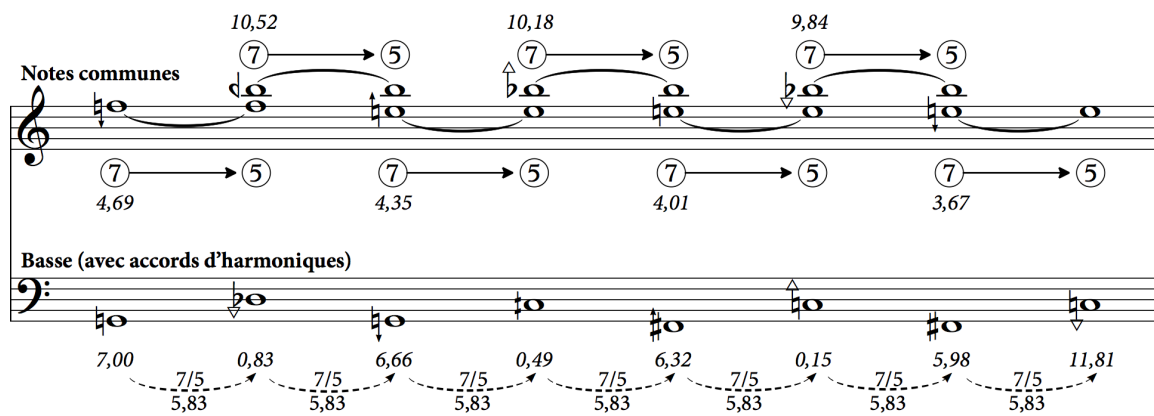


Figure 7: *Hyena*, rehearsal letters P–U: repetition of the interval 7/5 (5.83 semitones)

As Haas writes in the last of his “Five Theses on Microtonality,” “Microtonal music demands its own unique shaping of time.” The unique and subtle features of microtonal tunings can take time to “lock in” from a perceptual standpoint, and their complexities leave a wealth of detail for the listening ear even in moments of apparent stasis. If there is a common element in Haas’s oeuvre, it is the ongoing concern with varieties of temporal experience: his works combine disparate approaches to the shaping of time ranging from the cool-headed minimalism of James Tenney’s sonic landscapes to large-scale, symphonic dramas which have brought comparisons to Bruckner and Wagner. There is an intense physicality to Haas’s music that encourages taking the time to listen deeply.

As Haas’s colleague at Columbia, composer George Lewis, describes, “I’m going to call it neuronal resonance. He is looking for neurons to fire, he’s trying to tickle neurons in bodies, in unusual places, to respond... you’re supposed to respond bodily to the music, it’s not a head space.”¹⁷ Haas’s recent engagement with new modes of expressivity and engagement as well as unusual expanded ensembles (e.g. *concerto grosso Nr. 1* for four alphorns and orchestra or *Limited Approximations* for six retuned pianos and orchestra) has allowed him to explore on a grand stage the dualistic oppositions that animate his music: stillness and turmoil, fusion and friction, light and dark.

¹⁷ *Ibid.*, 3:43

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