Formal Organization in Georg Friedrich Haas's *in vain*

Basic Elements at Work

With respect to harmonic language, *in vain* comprises two fundamentally different harmonic fields. First, we have the world of symmetrical configurations, with many references to octatonicism. This harmonic field is almost always governed by equal temperament. The second harmonic field encompasses the world of overtone series. The form of *in vain* revolves around three indispensable phases that govern the relationship between these two seemingly separate realms: initially, the two worlds are set apart, and they are represented one at a time through prolonged processes. Then they begin to happen in close proximity to one another, causing tension to build, and finally, they begin to coexist which brings about their transforming into one another. In the end, the careful observer realizes that, instead of various transformations causing new ideas to be created, the entire piece becomes a stage for the evolution of a single entity back and forth. It is strongly advised to the reader that he/she refers back to this very point in my discussion on a regular basis.

It is far from easy to fit Georg Friedrich Haas's *in vain* into a clearly defined form. This is because, except for one instance, it is difficult to discern where one section ends and the next one begins; the work constantly brings about a series of gradual transformations, establishing a rather organic structure, with many overlaps between sections that are allegedly individualized. One may then ask what exactly is being transformed. Unlike a generic process where one important entity stops and gives way to the initiation of another contrasting entity, *in vain* is saturated with a single important device. This device is prone to a number of evolutions and thus can manifest itself under different guises, enhancing the variety within the work in many spectacular ways. And because of the overly transformative approach that prevails in this work, it retains a single

identity, constantly evolving into other things and then back onto itself. It can come into being through fast runs with leaps (Fig. 1-1); it can appear in the form of fast scalar runs (Fig. 1-2); it can emerge simultaneously in different instruments without any rhythmical synchronization (Fig. 1-3); it can slow down and synchronize other instruments rhythmically with one another (Fig. 1-4); it can accommodate harmonic entities pertaining to either world (equal temperament/natural tuning) (Fig. 1-5); it can manifest itself through repeated notes (Fig. 1.6); and finally it can slow down enough resulting creating sections where chords with long sustained notes begin dominate the texture (Fig. 1-7).

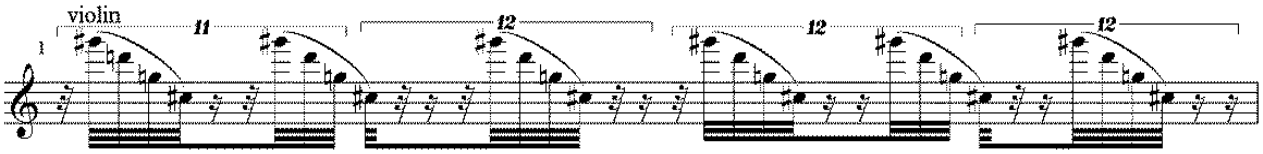

Fig. 1-1, fast runs with leaps

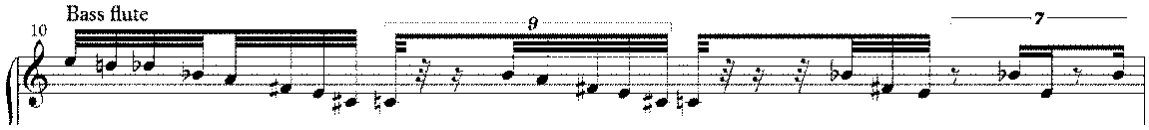

Fig. 1-2, scalar fast runs

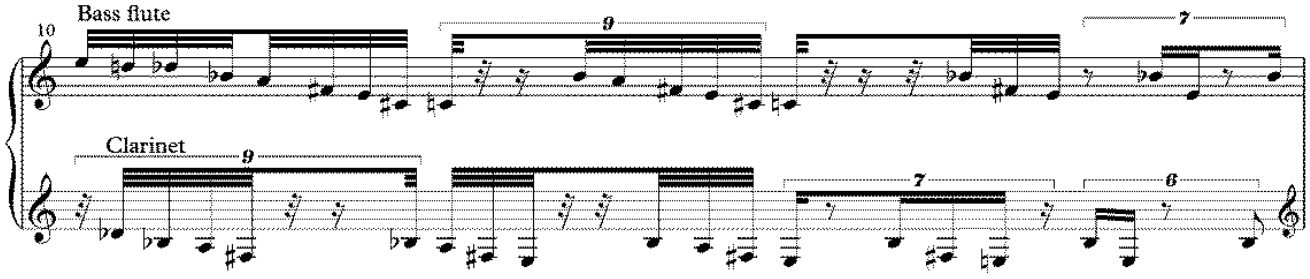

Fig. 1-3, Simultaneous fast runs without rhythmic synchronization

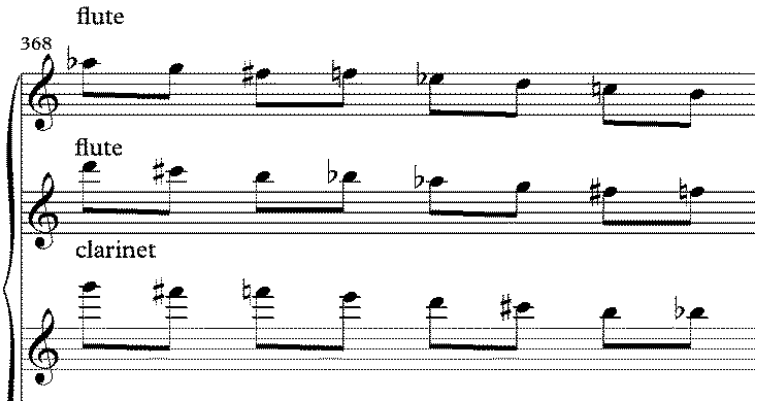

Fig. 1-4, Simultaneous slower runs with rhythmic synchronization

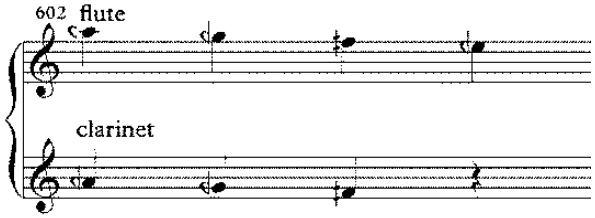

Fig. 1-5, even slower runs with rhythmic synchronization, harboring microtones

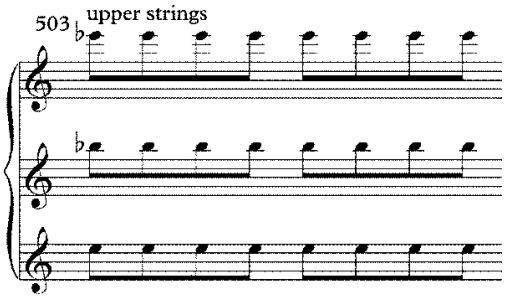

Fig. 1-6, runs with repeated notes

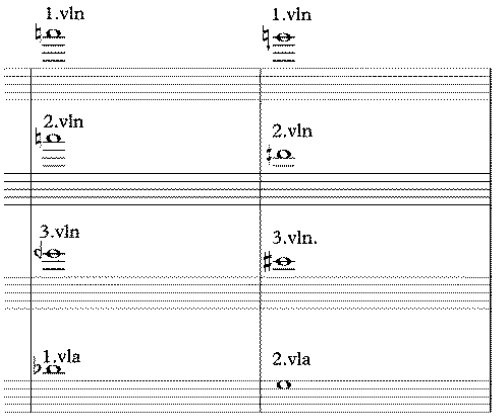

Fig. 1-7, extremely slow progressions

The above mentioned transformation of a single entity is in no way a speculation, because one actually witnesses the gradual transformations that render this single entity under different time configurations.

A General Overview of the Form

One reason why it is difficult to discern the form in this work is because a section that follows is a different manifestation of the one that precedes it; if one was obliged to give letter names to all of the supposedly individual sections, A, A', A'', A''', etc would be the result, which looks redundant. Nevertheless, for clarity purposes, I will assign the first three seemingly different sections the first letters of the alphabet: A, B and C. This will facilitate my relationship-establishing endeavors as I tackle a piece with more than six hundred measures, lasting just about an hour.

Movement in *in vain* is propelled by the juxtaposition of a series of climbs and descents, perpetually rising and falling. At the very outset, the listener encounters a rainbow of sound. Fast runs with consecutive leaps permeate the texture. At this point there is no rhythmic synchronization between instruments; each one has its own independent rhythm (Fig. 1-2). Later the intervals of these runs are compressed and they attain a scalar form, while some of the string instruments still retain their disjunct configurations. The runs with consecutive leaps are made up of tritones and fourths (a fourth here refers to an interval class), whereas the scalar runs descend through octatonic-like configurations. Soon after, all instruments attain scalar formations (mm.29). Even though there exists a constant sensation of climbing, the overall gesture over a larger span of time is that of a being stuck in a register; if the registral highs and lows in the

beginning are taken into account, and compared with ones in any other part of this section, one will soon come to the realization that not much progress is being made. Thus, this section mainly manifests itself in a static register. Let us now remember the title of the work and hold on to this thought with all its potentially appropriate allusions for now. I will call this section A. Gradually, one by one, some of the instruments begin to sustain notes over larger spans of time (mm.35), the flurry of notes begin to dissipate and eventually what remains is a long sustained sonority made up of tritones and a fourth at its bottommost register (mm.76).

The individual notes of this sonority begin to change by half steps through extremely gradual glissandi, causing vibrations in due course (Fig. 2-1). The final sonority moves to a virtual spectrum, with B as its fundamental (p.85). The sonority is barely intact, as there is much blur to its fundamental; as it can be seen from Fig. 2-2 below, the upper portion of the B spectrum is accurately reproduced in the harp and in the higher strings, however there is much indeterminacy down below. A little later this texture moves up a step so as to incorporate the partials of a C spectrum, and yet again there still is much indeterminacy, because even though the harp does play harmonies congruent to a low C fundamental, no single low-register note behaves like a fundamental, but simultaneous low notes whose close frequencies cause vibrations (Fig. 2-3). Let’s call this section B.

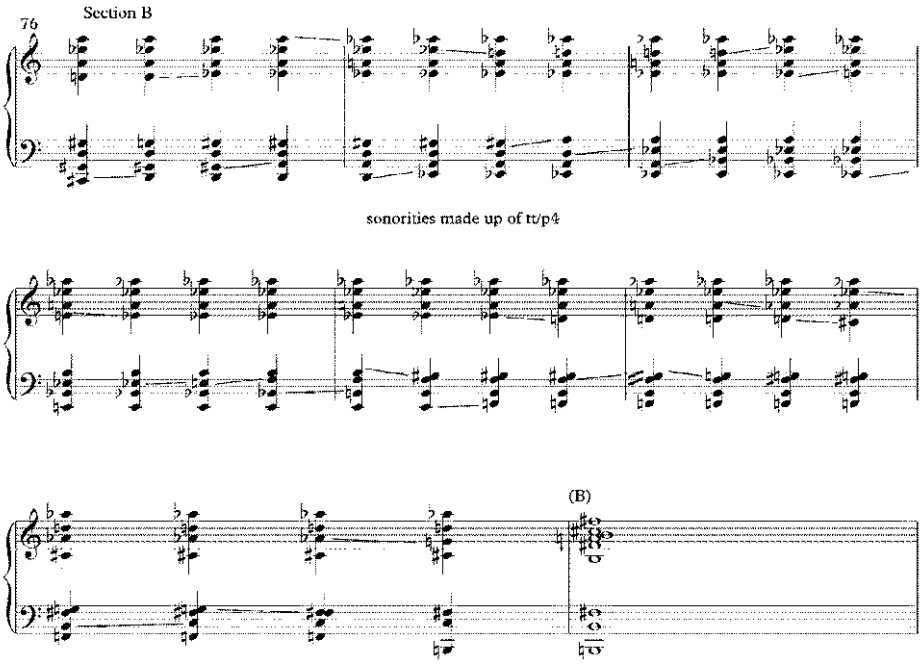

Fig. 2-1, first slow section, dust settles

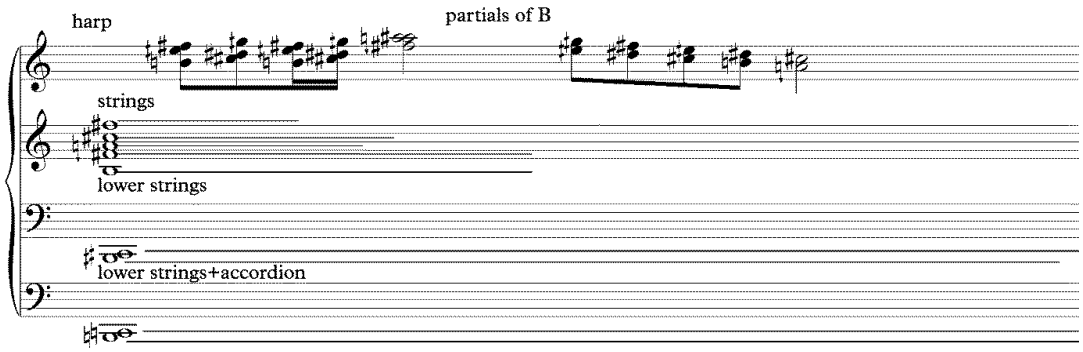

Fig. 2-2, a fuzzy virtual B spectrum

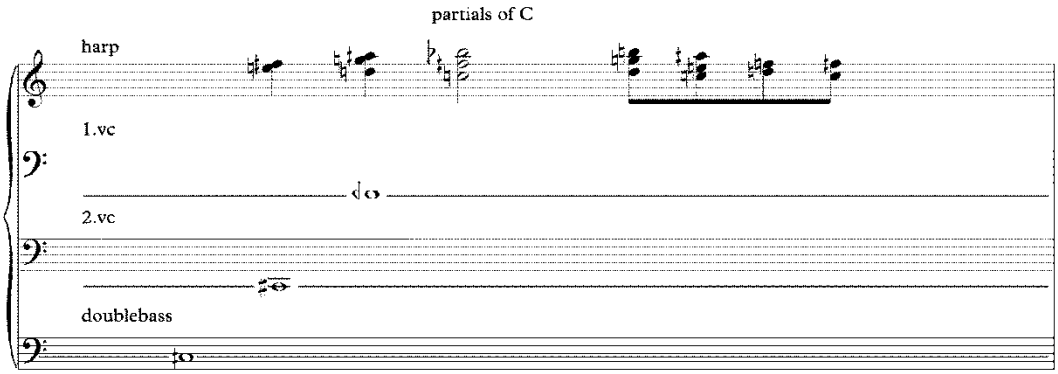

Fig. 2-3, a fuzzy virtual C spectrum

A distinguishing feature of the next section (C) is the large spans of time each sonority is given; the composer allows us to digest details of each chord aurally without any interventions of distractive lines or counterpoint. Another important aspect that sets this section apart is that the harmonic field has clearly moved from the world of octatonicism into the world of natural tuning, as was foreshadowed at the ending of the preceding first slow section. The section begins with a sonority that contains the high partials of a Bb fundamental. Sonorities that follow are also made up of virtual spectra, and they descend in the order shown in Fig. 2-5. Notice that much like the beginning, the main progression moves through a series of descents and rises, however this time around, the overall contour is that of a fall. Initially, the first five or so virtual spectra have no fundamentals (only implied ones). Later on we begin to hear the low fundamentals, first in instruments with no sustaining capabilities (mm.113), like the harp and the piano, and later on, in instruments like the double bass and the celli. Gradually more instruments join in, first woodwinds (mm.90) and then the brass (mm153).

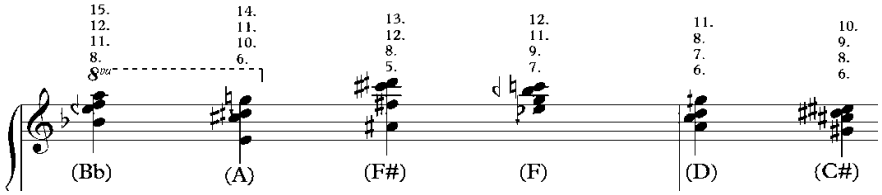

Fig. 2-4, First few sonorities pertaining to the fundamentals shown in brackets

Towards the end of this section, the world of equal temperament begins manifest itself again, with its sonorities that combine tritones, fourths, octatonicism with fast runs. These short interludes are interspersed between sections that feature simultaneous virtual spectra, causing more and more tension to build up, first A + B (mm.315 and mm.325), then A + G (mm.329) and finally G + F# (mm.339) a semitone apart! Finally the realm of equal temperament prevails

(mm.341) and we end up in a section that sounds very much like the beginning of the work (see Fig. 2-5).

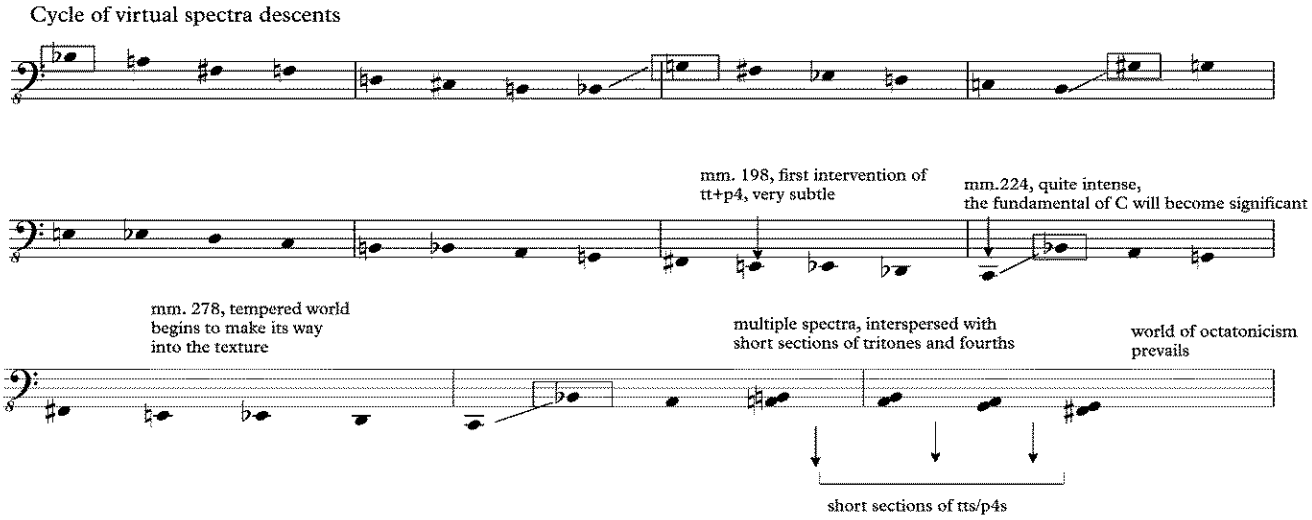

Fig. 2-5, the progression of virtual spectra, notice that the notes shown are only the fundamental tones of the spectra

At measure 357, the runs in all instruments begin to synchronize rhythmically and slow down, eventually settling on a chord entirely made up of tritones (F#-C) at measure 410. Starting with the viola on G#, at measure 419, we then witness yet another descent; in fact, one can therefore confidently assert that since the beginning of section of the piece, the overall gesture has been that of a descent with moments of lingering on static registers. Moreover, the intervals of occasional ascents have gradually gotten smaller and smaller, as if the overall sense movement has run out of steam. (Compare Fig. 2.5 with Fig. 2.6)

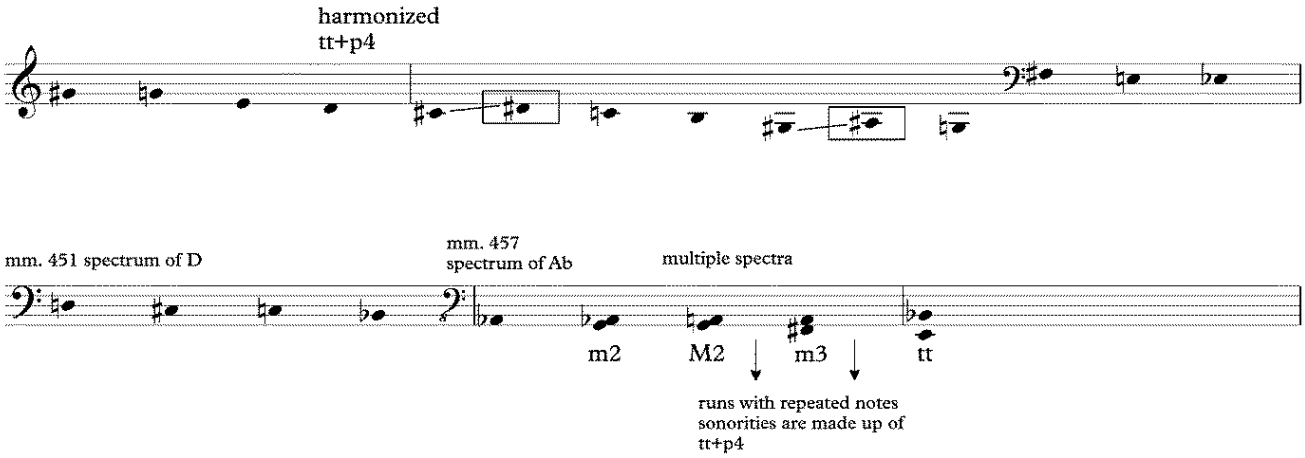

Fig. 2-6, another descent with occasional harmonizations

Once the progression lands on D, it is harmonized by its partials (mm.451), but the descent continues as the D spectrum is sounded out, in the lower voices, ending on Ab, which is also harmonized by its own partials (mm.457). We then start encountering simultaneous spectra, much like towards the end of the C section. And much like the end of the C section, these combined spectra are interspersed between short sections of fast runs, this time guised as repeated notes, once again built out of tritones and fourths; first G+Ab (mm.462), then A+G (mm.473), A+F# (mm.482), and finally B+Eb (mm.519), spectra that are a tritone apart from one another (see Fig. 2.6).

The next section will be named the climactic section (D) (mm.529). The runs in this section are made up of repeated notes, and having been foreshadowed before, now they work their way into the fabric of the texture, bringing the energy level to its zenith. Soon afterwards, the overall spectral harmony ceases to involve multiplicities and all the instruments merge on the partials of a single C fundamental. This is a tremendously effective moment in the piece, and the energy level peaks, notes constantly sliding upwards and being repeated, incredibly loud tam-tam hits are heard towards the end. Once the climax is reached, the sonority disintegrates into one made up of ear-cringing minor 9ths, minor seconds and tritones.

This is followed by the final section, in which the listener encounters three more cycles of overtone descents (see Fig. 2-7). The first overtone descent is achieved through glissandi in the strings, where partials belonging to one virtual spectrum slide into partials belonging to another virtual spectrum (p.216). This process is repeated, and right after the fundamental tone Eb is reached, the overtone descent begins to gather momentum and speed up in due course; this is the moment when one truly realizes the evolution of the single seed (entity) I had mentioned earlier in the paper: As the overtone descent speeds up, it attains the attributes of a series of runs that are rhythmically synchronized between the instruments (mm.553), as the runs take up even more speed, they become unsynchronized rhythmically (mm.578), evolving into very similar gestures observed at the very beginning of the piece (see Fig. 2-8). Notice that in due course one also witnesses the natural tuning gradually evolving into equal temperament. This is clearly shown on the right hand side of Fig. 2-8 (upper portion): the oboe and the flute do play notes (the 11^{th} partials) that exist within the natural spectrum of 'fundamental' tones contained in the double bass, however the clarinet does not play the proper $7^{th}/14^{th}$ partials anymore, as they would have to be lowered by 30 cents, and such an indication is indeed missing. The penultimate overtone descent merges into the texture, this is the first time ever in the piece where fast runs and long overtone descents are fused into a single texture and happen simultaneously. As the fast unsynchronized gestures dissipate, we are once again left with a slow overtone descent, and much like in the previous phase, it once again evolves into fast unsynchronized runs.

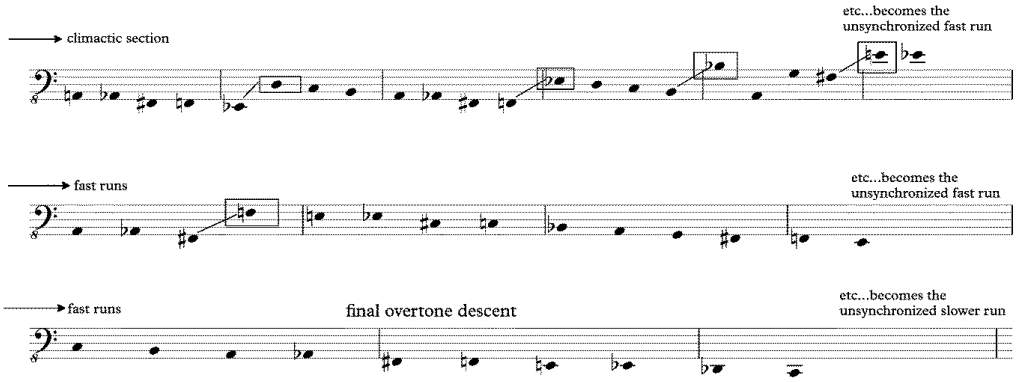

Fig 2-7, final three overtone descents (arrows indicate preceding sections)

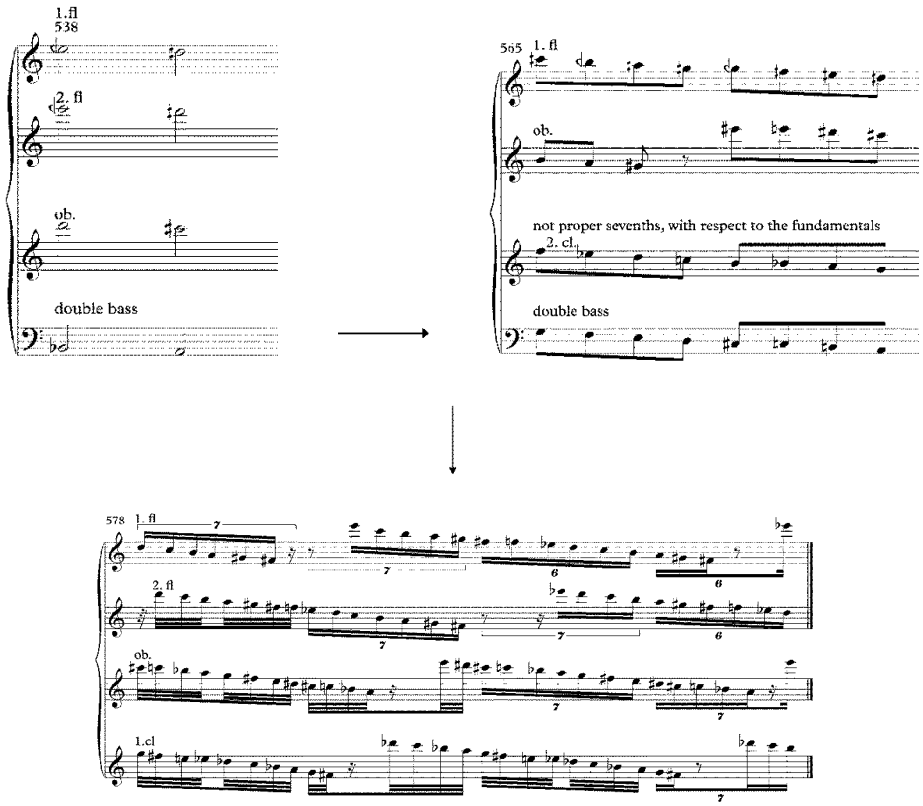

Fig. 2-8, overtone descent evolving into unsynchronized fast runs

The final slow overtone descent reveals itself again among the fast unsynchronized runs. As the fast runs once again dissolve away, the slow overtone descent takes up speed, attempting to once more transform into fast unsynchronized runs, however this process is cut short and the piece concludes abruptly.

A more in Depth View of the Form

As I had mentioned earlier (p. 1), the process in *in vain* traverses three phases: **1-) the realm of fast runs and octatonicism, and the realm of slow, long sustained overtone chords are set apart from one another and are individualized 2-) the two worlds exist in close proximity to one another, and 3-) they become fused and are allowed to evolve into one another.** The last phase finally revealed to us that there was actually one entity being transformed all along. It further showed to us the links between the two worlds through an endless process of speeding up and slowing down, rising and falling. That is not to say that those links were absent in earlier phases, it just means that they were not immediately recognizable, but more abstract. It is the purpose of this section to bring forth less apparent links in between the two worlds.

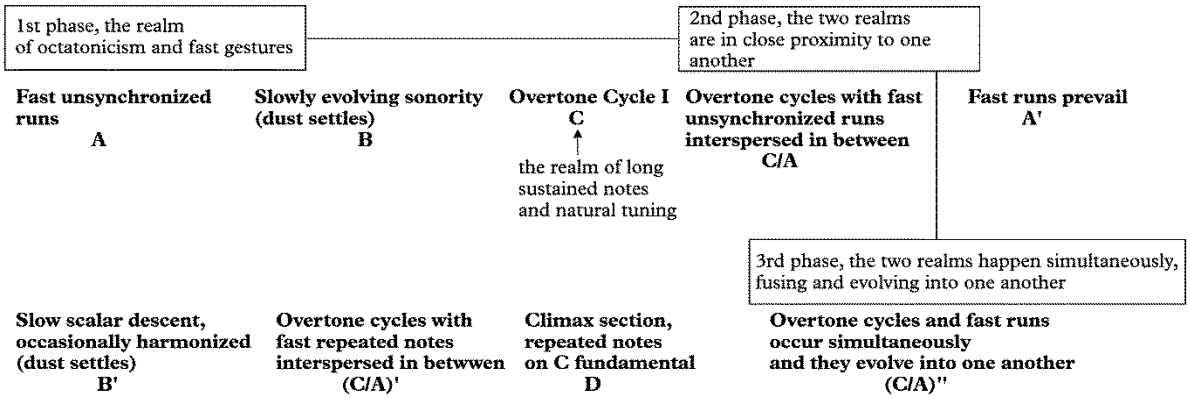

Fig. 3-1, the general form of *in vain*

We are now ready to look into some properties of the octatonic scale. Allen Forte defines this collection as belonging to pitch class set 8-28 (0134679T). It divides the octave in two, by two tritones. It also has the property to map into itself through both the transposition and the inversion (T0, T3, T6 and T9/T1I, T4I, T7I, and T10I). Olivier Messiaen defines this collection as the number two of his modes of limited transposibility; only two transpositions yield new notes

before it maps back onto itself. This collection is entirely symmetrical, and therefore, unlike asymmetrical collections that are used in tonal music, it gives a sensation that every note is of equal weight. Furthermore, the collection has the capability of accommodating a number of vertical sonorities. Messiaen made use of several such sonorities, such as the half diminished, the dominant seventh and minor/major chords. Haas on the other hand, in his usage of octatonic collections, prefers to employ vertical sonorities that contain P4ths, P5ths and tritones. These chord configurations are not arbitrarily chosen; in this particular case Haas pays heed to a composer he has held in high esteem for many years, Ivan Wyschnegradsky. Wyschnegradsky, throughout his career, systematized a number of approaches that made consistent use of microtones. He considered the interval of a major 4th, which spans a space between a perfect fourth and a diminished fifth, to be of particular significance, because of its presence in the harmonic series. This interval accommodates the number of quarter tone steps that lie between the fundamental tone and its eleventh partial, when the latter is brought as close as possible to the former registrally (11:8).

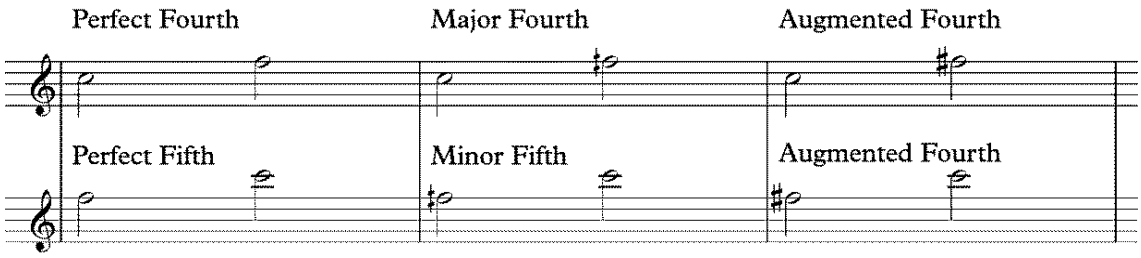

Fig. 3-2, Wyschnegradsky's significant interval, the major 4th

Wyschnegradsky subjects this interval to a cycle of M4s, much like the circle of fifths encountered in tonal music.[1]The resulting configuration of notes is then used in generating his diatonic scale (Fig. 3-5). The composer made much frequent use of this particular scale in his *24 Preludes*. When compared to the diatonic major collection, Wyschnegradsky's scale displays some striking similarities; the major scale features an interval that dominates, in this case M2, with two instances of intervals that are half its size (E-F, B-C). The dominating interval in Wyschnegradsky's scale on the other hand is the semitone, and much like the major scale there are only two instances that feature intervals half the size of the dominating interval (Compare Fig. 3-4 with 3-5).

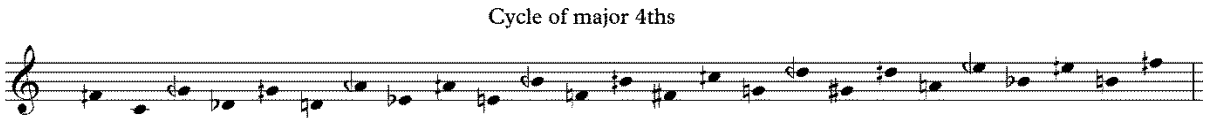

Fig. 3-3, cycle of M4s

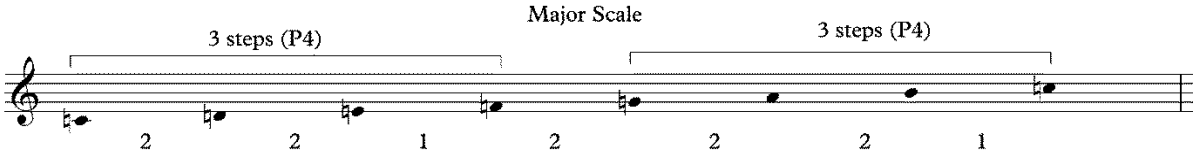

Fig. 3-4, division of the diatonic major scale

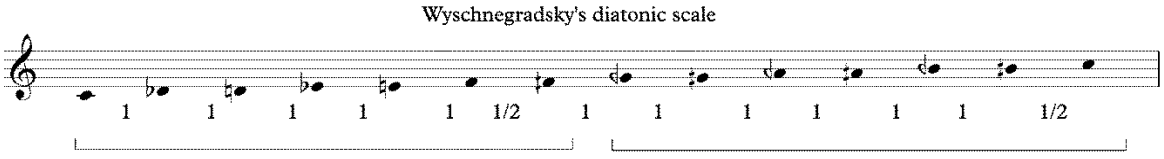

Fig. 3-5, division of Wyschnegradsky's diatonic scale

[1] Myles Skinner, ''Towards a Quarter-Tone Syntax: Selected Analyses of Works by Blackwood, Hába, Ives, and Wyschnegradsky'' (Doctoral Thesis, University of Buffalo, 2007), 146, http://search.proquest.com.libproxy2.usc.edu/pqdtglobal/docview/304777559/30E7D9165955405BPQ/1?accountid=14749

Furthermore, the major scale is divided into two tetrachords, each one encompassing three scale steps to make up a perfect fourth, whereas Wyschnegradsky's diatonic scale is divided into two heptachords, each one spanning twice the number of scale steps as the former, generating an interval of a M4. In the circle of fifths, any transposition by a perfect fifth of the diatonic collection yields another collection with only one note that is different; all the remaining notes are in common. This phenomenon is what Richard Cohn describes as a 'maximally smooth cycle.'[2] This relationship is observed, for example, between C major and G major; these pitch classes require only the alteration of a single note to turn into one another (F natural and F sharp). A similar relationship also prevails in Wyschnegradsky's cycle of M4s; a transposition by a M4 yields another scale which has only one quartertone discrepancy between itself and the original, as shown in Fig. 3-6. In fact, transposition by a M4 plays a major role in Wyschnegradsky's music, in that there happens to be 24 possible transpositions of his diatonic scale, with the availability of maximally smooth cycles at hand. Two transpositions (C natural - F quartertone sharp - B) create an outer interval of a M7, divided into two equal intervals symmetrically, each one spanning a M4 or eleven quartertone steps. The exact configuration is also observed in the harmonic series, between the partial numbers 8, 11 and 15 (see Fig. 3-14).

[2] Myles Skinner, ''Towards a Quarter-Tone Syntax: Selected Analyses of Works by Blackwood, Hába, Ives, and Wyschnegradsky'' (Doctoral Thesis, University of Buffalo, 2007), 159, http://search.proquest.com.libproxy2.usc.edu/pqdtglobal/docview/304777559/30E7D9165955405BPQ/1?accountid=14749

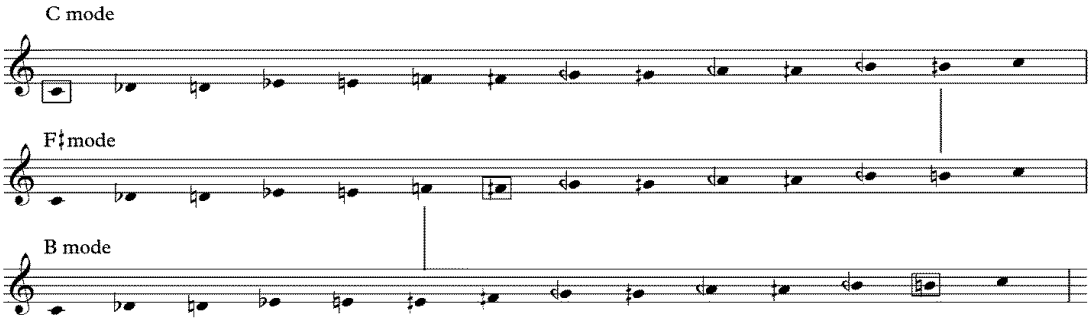

Fig. 3-6, modes that allow least alterations in the cycle of M4s

Such a disposition is obviously present in Haas's work, because of his frequent employment of virtual harmonic series. What is more important however, is that one comes across the M7 interval, in an abstract sense of course, in both harmonic fields; this outer interval remains a constant, however within the realm of equal temperament, it is divided asymmetrically into a perfect fourth and a tritone (see Fig. 3.13). What is remarkable is that the world of octatonicism is generally capable of accommodating this sonority, as long as the occasional fifths one encounters throughout are interpreted as pertaining to the interval class P4 (see Fig. 3-8). Thus Haas remains loyal to Wyschnegradsky's equally- divided-M7-chord through his inevitable employment of it in the sections that feature overtone chords. On the other hand, the asymmetrically-constructed-equal-tempered version of the chord dominates the preceding octatonic-like sections.

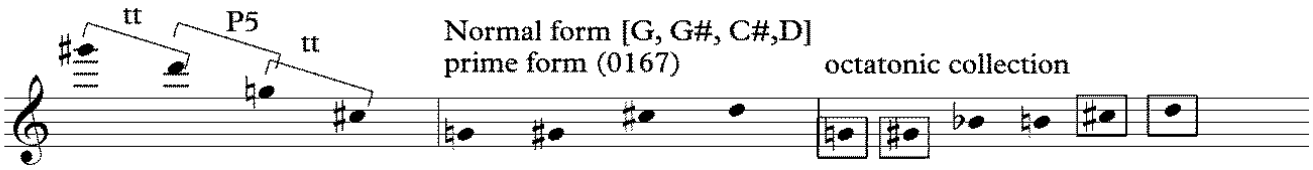

Fig. 3-8, many of the chords built out of 5ths, 4ths and tritones are actually subsets of the octatonic collection; (0167) is a subset of 8-28.

Many of these sonorities are the subset of the octatonic collection (0167). One can interpret the relations between the elements of this subset in a number of ways; the set contains two tritones separated by a half step, or two half steps separated by a tritone. Notice that this half step can be inverted into a M7! At the very onset of the piece, Haas employs the octatonic collection in both its scalar form and as the subset (0167) with leaps of tritones and fourths, and sometimes fifths.

At certain times the collection is disrupted with half step fill-ins (see Fig.3-9). These subtle shifts not only obliterate the traces of predictability, they also bring about the other two transpositions of the collection as a mode with new notes. The resulting collections are composed out throughout the piece, and this notion provides one of the most significant abstract links that is at play in terms of the large scale construction of *in vain*. For example, as it could be observed in Fig.3-10, the fast runs of the beginning contain very similar, octatonic-like collections that also operate in the slow overtone cycle phases, (014) being the domineering configuration.

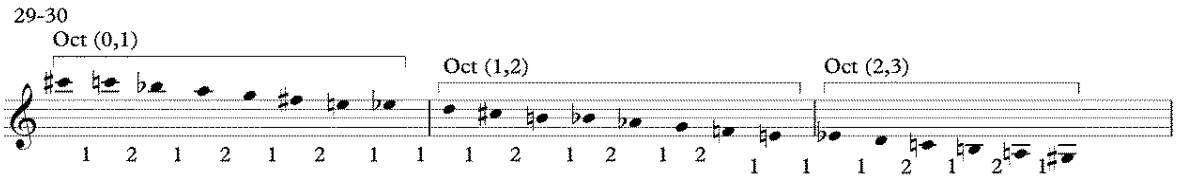

Fig.3-9, the disruption of the octatonic collection through half step motions

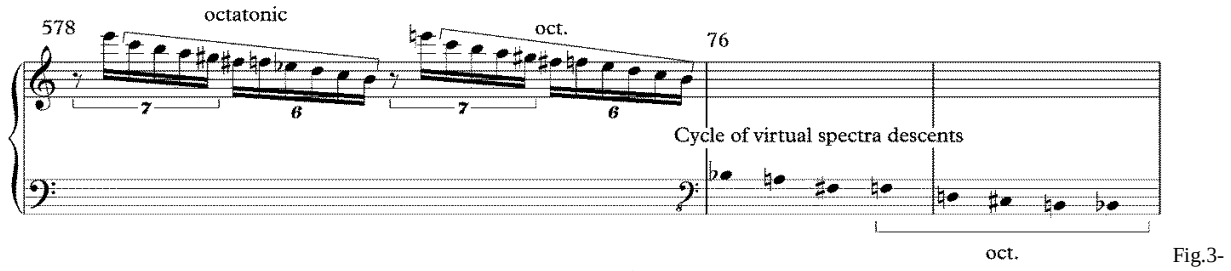

Fig.3-10, the prolonged composing out of the octatonic-like collections

The disruption of the octatonic collection by means of half step shifts sometimes creates other types of collections whose elements maintain similar relationships to those that are purely

octatonic. A good example of this is in the piano part at measure 2 (012678). When we compare this collection to (0167), not only is the latter a subset of the former, but instead of two tritones separated by a half step, we have three of them separated by half steps. These disrupted octatonic collections behave in accordance with Haas's choice of sonorities when they are spread out. For example, the chord at measure 76 is not fully octatonic, but its verticalization in this case happens to be exclusive to fourths, fifths and tritones.

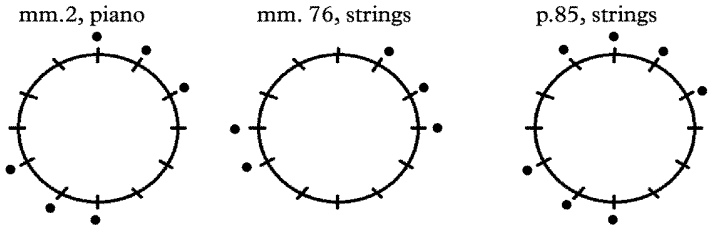

Fig.3-5, (012678), (01267), (0123678)

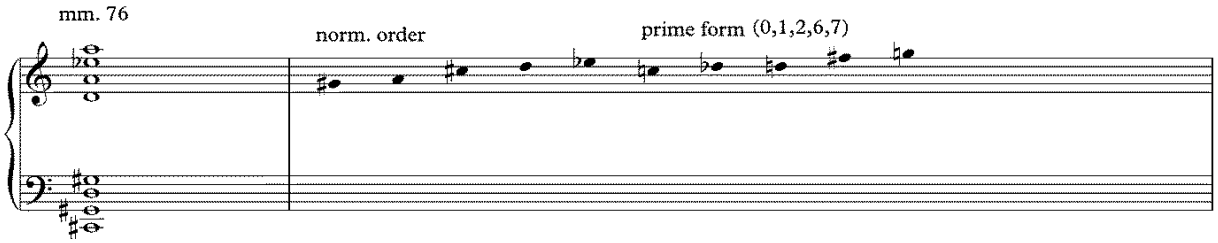

Fig. 3-11, the formulation of (01267)

More important than all of the notions mentioned above, these half step shifts disrupt the symmetry of movement. I had mentioned earlier that the octatonic collection does not have a root; in this sense, shifts in symmetry create weight for certain notes. The music becomes dismantled from the realm of equality only to settle in the world of hierarchies. In a large scale sense, half step motions are responsible for the shift from equal temperament to natural spectra, and thus they provide another abstract link between the evolutions of gestures.

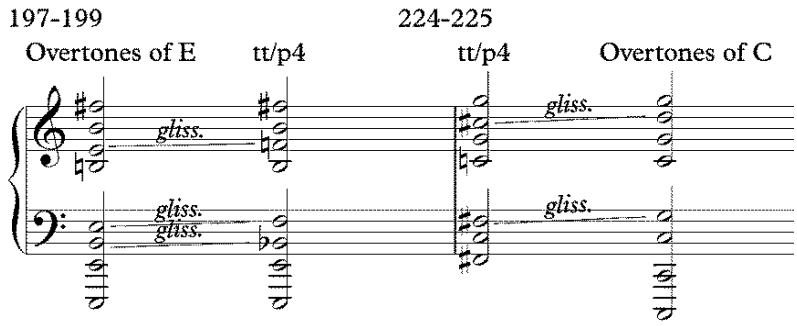

Fig. 3-12, half step motions are the links between two harmonic worlds, one symmetrical/octatonic, and the other, the overtone series

At measure 197, section C, when the overtone chords are the main feature, we witness the first interruption by the world of symmetry and equal temperament, as a single glissando motion that spans a semitone turns an overtone chord into one made of fourths, fifths and tritones (see Fig. 3-12). The same motion is responsible for the reverse process; if one takes into account the half step motions at mm. 224-225, they seem to fix the tritone intervals, turning them into perfect fifths and fourths, so that lower register ends up taking the form of a harmonic series on the fundamental C. This motion is encountered in various moments throughout the piece; right before mm.76, at mm. 264, mm.289, etc. A similar phenomenon is also at hand in terms of quarter tones. In Fig. 3-13, it takes a quarter tone alteration of the middle note in order to switch between Haas's equal tempered P4/tt chord and Wyschnegradsky's perfectly divided M7 interval (by to M4s) that operates in harmonic series. (This is however not realized as a direct transformation within the work). In other words, the realm of equal temperament and the realm of overtone series seem so close in that they require subtle shifts of small intervals, yet they are represented in this piece, at least initially, so far apart.

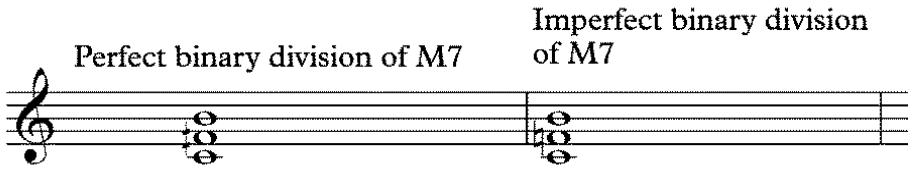

Fig. 3.13, divisions of M7, quarter tone shifts are also links in between the two worlds

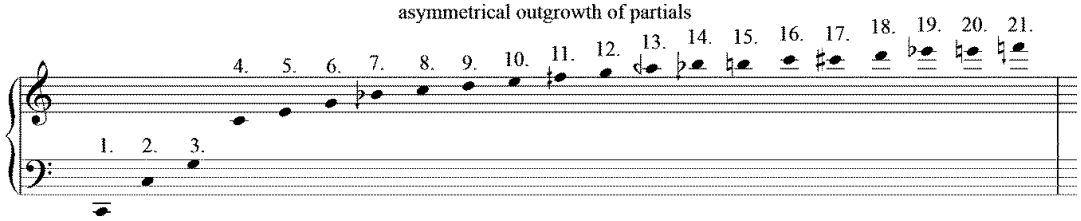

Fig. 3-14, the realm of harmonic series

The shift between the two worlds is further emphasized by the sonorities that are a part of an overtone spectrum. Unlike sonorities extracted from octatonic collections, these overtone chords contain tonal associations that dismantle symmetry altogether. Some of these chords are provided in Fig. 3-15.

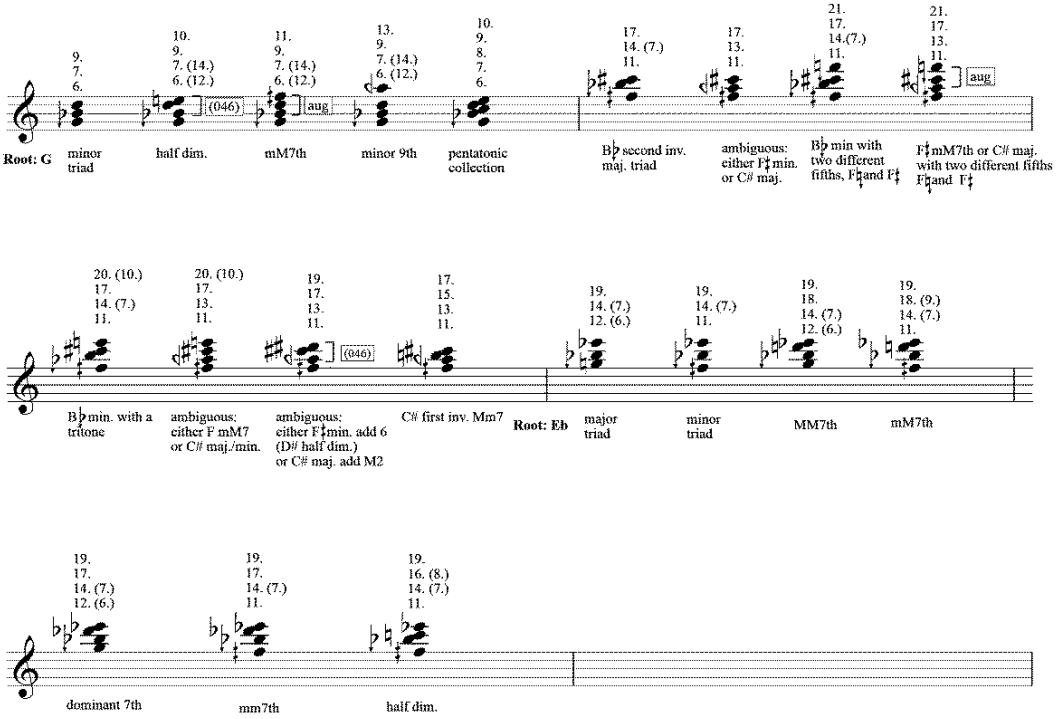

Fig. 3-15, sonorities derived from the overtone series of the C fundamental, quite asymmetrical and therefore ambiguous

At page 10 of this research article, I had illustrated that towards the end of the piece, at phase 3, separate worlds ended up evolving into one another. I had made this observation because the most clearly distinguishable sections in the piece, slow overtone descents and fast runs, evolved into one another before our very eyes. This part of the paper has focused on links between the two worlds when they were represented individually, set apart from one another. The non-immediate links I have presented here in fact make a direct evolution towards the end of the piece more viable. To summarize, the first link involves the composing out of the octatonic collection; the octatonic collection seems to disappear from the texture at the beginning of the C section, where overtone chords are allowed to take their place. However, the link between the two sections is reiterated, because the fundamentals in the overtone cycles move through octatonic-like subsets, in a much more gradual, prolonged setting. Secondly, Wyschnegradsky's M7 interval is present in both worlds; its equal division into two M4s is a prevalent sonority in the overtone series (the linkage between partials 8, 11 and 15), whereas it's unequal division into a fourth and a tritone is used to derive many of the sonorities in sections featuring octatonic modes and equal temperament. It could now be asserted that the equal and unequal divisions of the M4 render portals between the two main harmonic realms. Thirdly, there is this notion of the disruption of symmetry through subtle shifts of semitones. The semitone shifts introduce other transpositions of the octatonic scale in the A section, however that kind of a subtlety is far from easy for the ear to perceive in this section, because the gestures that contain them are indeed quite swift. When the C section begins on the other hand, such half step shifts in the fundamental tone cycles <u>do</u> play a role in dismantling the rootlessness of octatonic formations and therefore disrupting the symmetry. Such shifts obliterate symmetrical configurations in a vertical sense as

well (see Fig. 3-12), opening portals between the world of symmetry with it's vertically constructed multiple tritones, fourths and fifths, and the world of asymmetry, the overtone series.

Another abstract link in play has to do with similarities of gestures. In the beginning of the A section, runs with leaps may in fact be regarded as equal-tempered imitations of lower portions of the overtone series. When the density increases, many of the instruments begin to play scalar formations, and conversely these diatonic runs imitate the upper portions of a harmonic series, constantly climbing up in register.

The last link between the two realms has to do with the intertwining of simultaneous spectra. In addition to moments when the two worlds are in close proximity to one another, the sections that involve simultaneous spectra also allow instability to arise; one virtual spectrum by itself is quite stable, but when two virtual spectra occur simultaneously, tension and therefore more energy and dynamism is introduced into a passage. If one then interprets the world of overtone series, with its slowly evolving sonorities as stable, and the world of octatonicism, with its fast moving gestures and runs as unstable, then the intertwining of two overtone series prefigures a move away from stability.

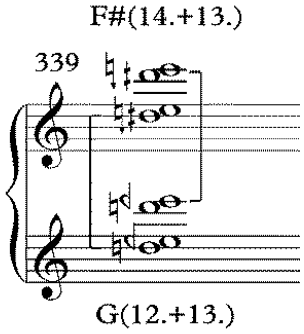

Fig.3-15, a virtual spectrum that combines the partials of F# and G

In measure 339, the spectrums of both G and F# are combined; the resulting sonority is quite significantly unstable, because notes that are smaller than a half step apart are sounded together. The twelfth and thirteenth partials of G are already close to one another by less than a half step (50 cents) and so are the thirteenth and fourteenth partials of F# (70 cents). Furthermore, the fourteenth partial of F# (E lowered by 31 cents) and the thirteenth partial of G (E lowered by 49 cents) have a sent difference of 51 - 31= 20 cents. Such combinations are bound to cause a lot of unstable vibrations and out-of-spectrum difference tones.

Thus the transformative nature of the work is governed by juxtapositions of such notions, and at the end, with all the links at hand, one realizes that a single entity has been present all along. The music starts with fast unsynchronized runs, and then continues through slowly moving overtone cycles, the two worlds get closer and closer, and finally are allowed to intertwine and evolve into one another. Seemingly separate entities have been the transformation of one single seed from the beginning. These were linked, at least in an abstract sense all along, until they evolved to one another in a less abstract and more direct manner towards the end. Thus the obvious evolution of one world into another towards the end only exposes relationships that were more concealed before.

Conclusions and Philosophical Connotations

In his preface to the score of Haas's masterpiece, Bernhard Günther makes several references to significant authors from the last two centuries. Two of such particular references are especially striking. The first is an excerpt taken from Samuel Beckett's novel, *How it is*. I present it here as it is quoted in the preface to the score of *in vain*:

‘then before I can find myself again at the same point and in much the same state I shall have been successively’[3]

The second quote is taken from Charles Sealsfield’s *The Cabin book*:

‘I was utterly unable to understand how I had followed my own track. It became plain to me afterwards. What I had taken for the track of another had been my own track. Without sign, without waymark, I had ridden in a circle, and while I thought I was going on wards, I was riding backwards.’[4]

Such allusions are appropriate because they bring to mind the title of the work; something is being done, progress is seemingly being made, however it all turns out to be ‘in vain’. This phenomenon is very effectively captured in the piece. The motions that encapsulate unceasing rises and falls brings about a sensation of being stuck; this gesture permeates not only the opening section, or any other section that operates with fast runs, but even the slow sections of overtone sequences, and therefore the entirety of the work.

Furthermore, the gradual evolution of one material to another back and forth obliterates any sign of large scale progress. This of course does not have any pejorative implications, on the contrary, it comments on the original ideas at play in the construction of *in vain*, as localized sections still retain their contrasting features.

It is curious to consider what exactly Haas considers to be in vain, or what exactly would have been earned had the process not been in vain. Concert lights might provide an answer to that. As section A ends, the intense unsynchronized gestures begin to dissipate and eventually disappear, and much to the surprise of the audience, the lights are gradually dimmed until the whole stage and its surrounding environment is left in utter darkness. And so section B and the following section C begin in pitch black. The lights only gradually make their way back

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[3] Georg Friedrich Haas, *In Vain*, (Vienna: Universal Edition, 2007), X.

[4] Idib., XII.

throughout the overtone sequences, and finally the whole stage and its surroundings are completely lit again. This happens one more time in the piece, at measure 507, just before the merging of two overtone series, E and Bb, the lights are again gradually dimmed until complete darkness is attained, and they are only turned on, with short flashes this time, throughout the climactic D section. Let now consider the notion that lights disappear in sections that involve most tension and intensity; on the other hand they resurface when there is a sensation of stability, or in other words, moments that incorporate virtual spectra. An analogy can then perhaps be enacted between darkness and something antagonistic that constantly poses threats. One may be able to assert that the music is striving to reach for moments of stability, but even in slow sections such stability is in no way perpetual, but is hammered again and again as antagonistic forces creep up again. The world of octatonicism with all its symmetries and rootless configurations pose a menacing threat to the stable world of overtones and asymmetrical contours; in fact, octatonicism is still operational as a background entity, even when the overtone sequences begin. And moreover it is the same exact force that eventually wrenches the music out of stability.

Indications for Further Research

I had initially made up my mind to utilize a proto-Schenkerian-type method to decipher the methodology in *in vain*. As I learned more about the work and Schenkerian analysis, I began to realize that such an approach would not yield satisfactory results. Although *in vain* is not the type of post-tonal music Joseph N Strauss analyses in his article, *The problem of Prolongation in Post-Tonal Music*, his conditions are still valid even in this case, if such an approach is to provide plausible results. Strauss argues that there are four conditions that have to be met if a piece of music is operational within the boundaries of chord prolongation. Condition #1 according to him is the consonance-dissonance condition. He asserts that ‘consonant harmonies or pitches with

consonant support have greater structural weight than dissonant harmonies or pitches with dissonant support.'[5] It can be argued that in *in vain* the world of overtone series is more consonant compared to the world of octatonicism. But when overtone chords appear, they do not feature intermediate dissonances, instead they generally follow one another as an array of consonant harmonies. There is much equality in terms of how dissonance and consonance manifest themselves in *in vain*, because the alleged worlds of dissonance and consonance are set apart, they do not prolong each other, they are prolonged as processes.

Strauss's second condition is the scale-degree condition; each scale degree corresponds to a unique place in the hierarchy of consonances in a tonal work. [6] Haas's methods do not end up assigning structural weight to any scale degree, if the term is even applicable in the first place, because of the nature of the material he is working with. There is much symmetry in the opening phases of the work that discourages one to assign weight to a particular note, and that same symmetry, as I have earlier, is still operational even when the overtone sequences steal the stage. The overtone chords by themselves can indeed have asymmetrical configurations, but the sequence of fundamental tones is mostly regulated by symmetrical collections. The symmetry is sometimes disrupted, but that is one of the many attempts in the piece that is <u>in vain</u>, because symmetrical configurations prevail over and over again.

Strauss's penultimate condition is the embellishment condition. According to him, this condition comprises 'a consistent set of relationships between tones of lesser and greater structural weight'; he mentions that for a tone to be prolonged, another tone(s) must act on it

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[5] Joseph Strauss, ''The Problem of Prolongation in Post-Tonal Music,'' *Journal of Music Theory,* 31, no. 1 (Spring 1987), 2.

[6] Joseph Strauss, ''The Problem of Prolongation in Post-Tonal Music,'' *Journal of Music Theory,* 31, no. 1 (Spring 1987), 4.

either as a passing tone, a neighboring tone, or an arpeggiation (notes that are consonant within the overall harmony).[7] *In vain* seems to fulfill only the last of these prolongation types. Separate sections indeed contain strings of notes that pertain to one particular world. Mostly however, this is ruled out in the octatonic sections, when one takes into account scalar configurations of runs, no one note can be said to have an embellishing role, and therefore lesser structural weight, when there is so much symmetry. In the overtone sequences for example, many of the chords are prolonged by means of consonant notes, coming to life after fundamental tones are initiated. However, without localized dissonances it becomes impossible to prolong any sonority by means of passing or neighboring tones, at least in a Schenkerian sense. It seems to me that *in vain* is made up of various prolonged processes, not tones or chords.

It is even more ridiculous to say that *in vain* potentially meets the last condition that Strauss mentions, the condition of harmony and voice leading.[8] This is obvious, because the work, at least in a large scale sense, does not feature a descending diatonic scale (Ursatz), but a cemented symmetrical one that perpetually falls and rises.

In a recent interview Haas had mentioned that he is a composer in between continents; one who blends his European heritage (Theodor Adorno) with the ideological freedom of America. In another interview he had said: "I trust sound analysis just as little as I trust sequential tables." This is perhaps why his music is so elusive to rigorous analysis. A kind of approach that incorporates computer programs capable of sound decoding might be successful in unveiling valuable information about Tristan Murail's *Gondwana*, or Gerard Grisey's *Partiels*, however the

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[7] Ibid., 5.

[8] Joseph Strauss, ''The Problem of Prolongation in Post-Tonal Music,'' *Journal of Music Theory,* 31, no. 1 (Spring 1987), 7.

intuitive methods of Haas would undoubtedly elude them. Much more is to be written about one of the new superstars of the current world of music composers. As for an eligible method of analysis, it is my prediction Haas's ways will keep baffling many other researchers.