LIGETI'S 'STYLISTIC CAESURA'?
OR
TOWARD A HISTORY OF HARMONY IN LIGETI'S LATE WORKS

In the Ligeti Collection at the Paul Sacher Stiftung, there are two intriguing pages in the third folder of packet 2/9 of the Piano Concerto materials.[1] The contents of these two pages raise questions about the standard chronology of Ligeti's compositional activity in the late 1970s and early 1980s, as well as the standard narrative of Ligeti's compositional career as it relates to harmonic structures.

This narrative—told by Paul Griffiths, Jonathan Bernard, Michael Searby, Eric Drott, Richard Steinitz, Michael Searby, and others—views Ligeti's compositions primarily in relation to two key events: his emigration from Socialist Hungary in December 1956 and the completion of *Le grand macabre* in 1977 (partitioning his career into three discrete periods). With the exception of Michael Searby, these same scholars focus primarily (though not exclusively, especially in the past few years) on Ligeti's middle period and lay out a narrative that encompasses all the major works of this period rather neatly. This narrative, first proposed by Griffiths and subsequently repeated and refined by the others, is one of a stylistic *tabula rasa* in Ligeti's music of the late 1950s and early 1960s, whereby Ligeti eliminates the hegemony and function of the primary parameters of tonal music (such as harmony, melody, rhythm, and harmonic progression—these vary slightly from theorist to theorist), and then embarks upon 'a process of gradual recovery' of those elements (Griffiths 1983, p. 112) culminating in the finale of Ligeti's opera, *Le grand macabre*. Eric Drott provides a concise, but detailed, summary of this narrative as it stood in 2001:

> Writers on Ligeti's music have often described his stylistic development from the late fifties to the present as a narrative of rediscovery: after eliminating most of the

[1] They are the first two pages in that folder. Both pages are on a single side of large (27x34cm), 'portrait,' 24-staff manuscript paper.

> conventional categories of musical design—including harmony, rhythm and melody—by means of the neutral sound-masses of his static music [e.g., *Apparitions* (1957, 1959), *Atmosphères* (1961), and other like works], Ligeti is said to have slowly recovered that which he had previously forfeited. Thus his music of the mid-sixties begins to incorporate more distinctive harmonic entities, such as the so-called 'Ligeti signals' found in *Lux Aeterna* [1966] and *Lontano* [1967]; his music of the late sixties and seventies reinstates rhythmic pulse, as is apparent in the pattern-meccanico compositions *Continuum* [1968] and *Coulée* [1969]; and his music of the early seventies escaped the specter of the Darmstadt school to such an extent that he wrote a work whose title, *Melodien* [1971], made clear its concern with traditional musical means. [Griffiths (p. 78) and Searby (1989) cite the Chamber Concerto of 1970 as initiating this change.] . . . Beyond the elimination of harmony, rhythm and melody, his static works also seemed to strive after the elimination of Western art music's most defining characteristic: its sense of motion, growth and temporality. With the adoption of audible processes, however, these defining traits of the musical work resurface. (pp. 275-76)

Though each version of this narrative is slightly different—as can be seen in comparing Griffiths's and Drott's tellings of it—its general shape is straightforward, and it leads Griffiths to pronounce that the final scene of *Le grand macabre* (a passacaglia containing 'familiar chords'—i.e., thirds, sixths, and triads; p. 108) represents 'the end of the world' (p. 108) for Ligeti's music, or at least the end of a major period. The *tabula rasa* of the late 1950s has been filled with all the previously withheld elements of tonal music—rhythm, melody, harmony, harmonic progression (the last of which Griffiths claims is first recaptured in this final passacaglia; p. 105), and even a traditional formal structure—and the process is now complete. Further, Griffiths sees in the works immediately following the opera the same kind of extensive working out of the new elements of *Le grand macabre*'s finale that Ligeti engaged following other style-transformative or epoch-making works like *Apparitions*, *Lux aeterna*, or the *Lacrimosa* from the 1965 *Requiem*. Steinitz speaks of a substantial 'refresh' of Ligeti's style (2003, p. 251) with the 1982 Horn Trio after a compositional hiatus and creative block which followed the opera (p. 244). Likewise, Searby writes of a significant 'gap' between the 1978 harpsichord pieces and the appearance of the Horn Trio (2010, p. 101), which was the confirmation of Ligeti's new style which he was seeking during this time of 'stylistic crisis' (2010, p. xv).

The position of the Piano Concerto within this standard narrative is typically one of early struggle—beginning in 1980, squarely in the middle of this period of 'stylistic crisis'—followed by precipitous output—beginning in 1985, once his new style had been confirmed and established in the Horn Trio and the first book of Études for piano (1985). Such a narrative can be seen in Steinitz's biography (2003, pp. 315-16), Constantin Floros's (1994) program notes for the Piano Concerto, and even Ligeti's own descriptions of this work and this time period, which he calls a 'stylistic caesura' (Ligeti 1983 interview with Szigeti; cf. also *Ligeti in Conversation*, pp. 67-71, and Ligeti 2007, vol. 2, p. 300).

However, the two pages of sketch material under consideration in this article provide evidence that contradicts the received wisdom surrounding this time period—namely, the three-period narrative, the significant break in compositional activity from 1979-1981, and the idea of a 'stylistic caesura' (Ligeti 1983) or a 'stylistic crisis' (Searby 2010, title & p. xv). Rather, by examining the contents of these two pages and comparing them to sketch material and finished scores for other works of this time and later, we find a number of commonalities in concept and material between Ligeti's sketchwork and finished scores for the Piano Concerto (1988), his 1977 opera *Le grand macabre*, his work on the two harpsichord works of 1978—*Passacaglia ungherese* and *Hungarian Rock*—the Horn Trio (1982), the first book of Études for piano (1985), and even Ligeti's last two works, *Sippal, dobbal, nádihegedüvel* (2000) and the Hamburg Concerto (2003). My study of these materials suggest that Ligeti began sketching ideas for the Piano Concerto at least as early as 1978; the Piano Concerto material from those early sketches show a relationship with sketchwork for the 1978 harpsichord pieces; later sketchwork for the Piano Concerto, the Horn Trio, the Études—and even works as late as the Hamburg Concerto—contains related materials and addresses similar stylistic issues; and, thus, there is good reason to question the standard narrative which sees the years after the opera as a 'sty-

listic caesura' and compositional break and which dismisses the 1978 harpsichord pieces as largely insignificant to the broader narrative of Ligeti's career.

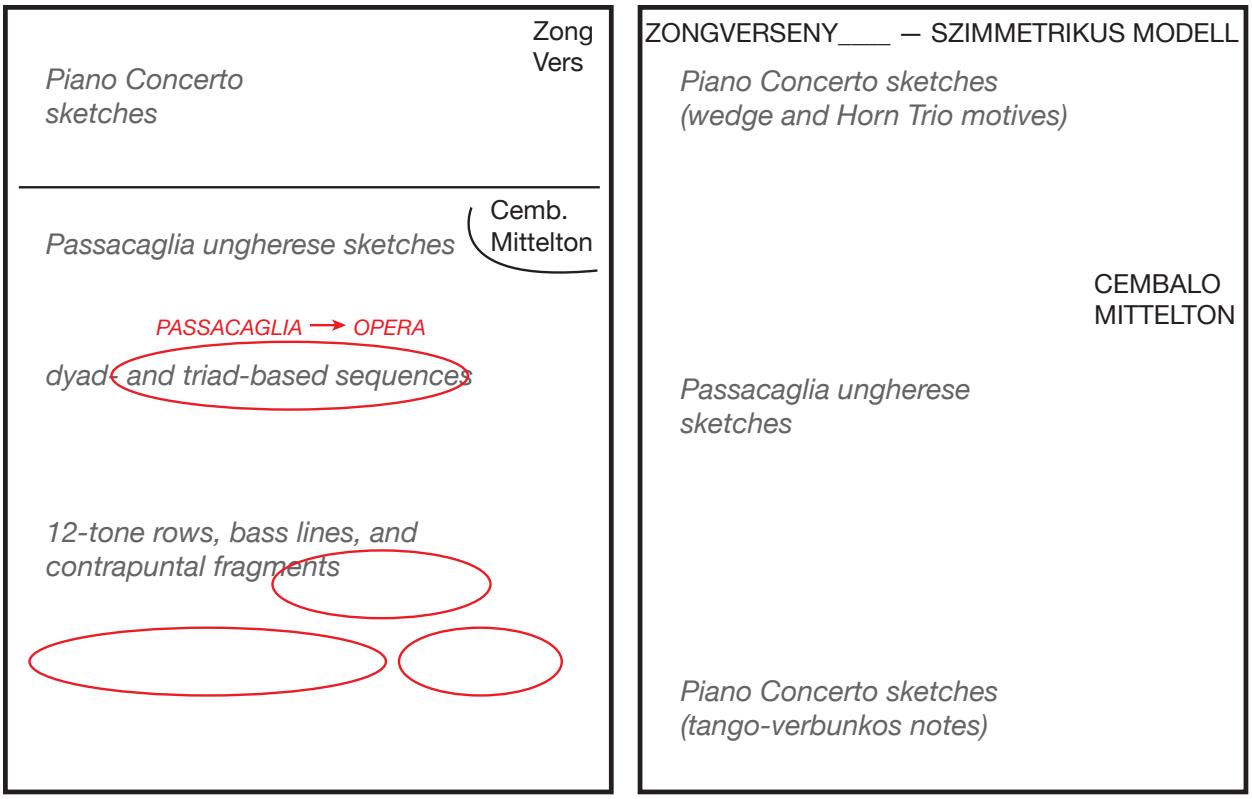

Figure 1. General layout of Piano Concerto sketches, packet 2/9, folder 3, pp. 1 (left) and 2 (right). See appendix for reproduction of the actual sketch pages.

The first of the two pages in question is labeled 'ZONG VERS' in the upper right-hand corner (abbreviated Hungarian for 'piano concerto'). The sketch material on this page begins with just over a bar's worth of piano music—four cluster chords—labeled 'Tema.' Surrounding this material are a few written comments. Just below the fourth staff is a slightly wobbly horizontal line extending across the entire width of the page. Immediately underneath that line in the right corner is the label 'Cemb Mittelton.' There is no doubt that this refers to Ligeti's piece *Passacaglia ungherese* for solo harpsichord, which is tuned in quarter-comma mean-tone tuning, and which had the working title 'Um Mittelton' (the title used in numerous letters of 1978 between Ligeti, Ove Nordwall, and several

recital organizers, now located in the Ligeti Collection—Ove Nordwall was planning a series of recitals in which his wife, Eva Nordwall, would perform *Passacaglia ungherese* and several other works for harpsichord, including Ligeti's *Continuum* and *Hungarian Rock*.)

From the fifth staff down to the twenty-fourth are a number of musical fragments written in preparation for the composition of *Passacaglia ungherese*. Among them, we find several sequences of dyads, one of which is based on a twelve-tone row (figure 2), and one of which simply catalogs the seventeen major and minor thirds available in mean-tone tuning (figure 20). There are also sequences of triads, including one based on that catalog of seventeen mean-tone thirds. Ligeti also pens several two- and three-voice contrapuntal fragments (the last of which is shown in figure 11). Lastly, this page contains two twelve-tone rows. One of these rows follows with a note that this row should be accompanied by a counterpoint made up of thirds and sixths. And on a sketch page from the *Passacaglia ungherese* folder at the Sacher Stiftung, we see that Ligeti followed his own instructions: there is a two-voice, twelve-dyad sequence which has this row as its bass line, and an upper voice which forms a major third or minor sixth with each of the bass notes (major thirds and minor sixths are, of course, the sole harmonic intervals of the two-voice ground he ultimately chose for the final version of *Passacaglia ungherese*—see figure 14).

All of this material for the Piano Concerto and *Passacaglia ungherese* is in pencil. However, there is also some red ink in the 'Cemb Mittelton' part of this page. The first sequence of dyads (based on a twelve-tone row, see Figure 2) is circled in red, with the notation (also in red), 'PASSACAGLIA → OPERA.' This is interesting for several reasons.

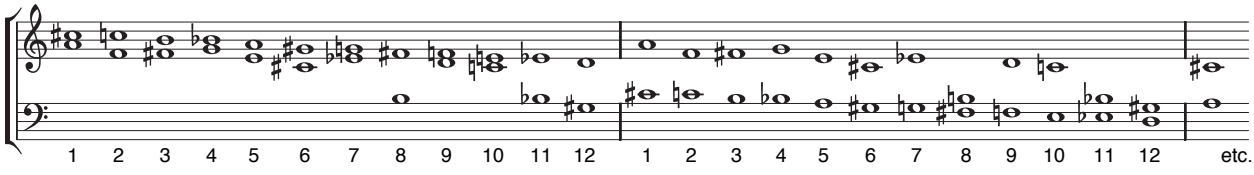

Figure 2. Sequence of dyads based on two twelve-tone rows from Piano Concerto sketches, packet 2/9, folder 3, p. 1.

First, this is not the ground of the passacaglia that finishes *Le grand macabre,* which is twenty-four dyads long, based on all the major and minor sixths (figure 3). Instead, this sequence is twelve dyads long, based on several different intervallic qualities. (Those intervallic qualities are listed on the right side of the page next to this system: NSx, kSx, Qi, qa, NT, kT, TR—or major sixth, minor sixth, fifth, fourth, major third, minor third, and tritone.) However, there are some related structural properties between this 'passacaglia' ground and the one we find in the finished score to the opera. This ground in the 'Cemb Mittelton' sketches is composed of two twelve-tone rows in note-against-note counterpoint, which are then inverted in the second bar, and inverted again into their original orientation (an octave lower) in the third bar. Thus both the upper and the lower voices are composed of two discrete aggregates: one in the first bar, and one in the second (after which the pattern repeats in a new register). The ground of the opera has the same contrapuntal structure (albeit composed out in rhythmic and registral space), but it is not composed of discrete twelve-tone rows. However, in each cycle of the ground, both the upper and lower voices sound each pitch class exactly twice. In other words, though it lacks the twelve-tone rows of the sketched sequence of figure 2, it shares with it the pitch-class homogeneity characteristic of dodecaphonic composition.

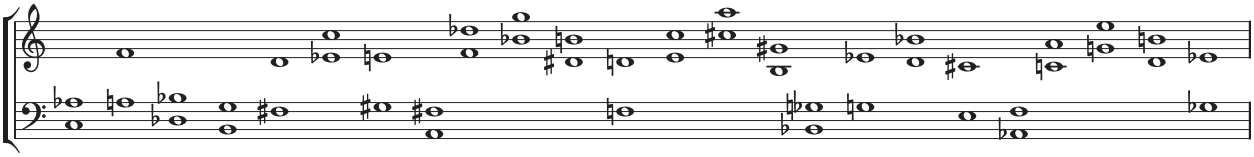

Figure 3. Ground from final passacaglia of Le grand macabre.

The second interesting facet of this sequence of dyads in figure 2 is that all signs point to the opera being finished in 1977 (though it did not receive its premiere until 1978, and he started work on his revision of the opera not long after). If that is the case, and if the red markings on this page mean that he was considering putting this sequence of dyads in the opera, then it is possible (but by no means conclusive) that this page is from as early as 1977. But it is also possible that he considered this

sequence of dyads for the opera revision, or for one of his two incomplete operas following *Le grand macabre*—*Alice* and *The Tempest*. In any case, this looks to be like the earliest of all the preserved sketch pages for *Passacaglia ungherese*, when its content is compared to the other sketch pages and the finished work, and there is a real possibility that it antedates the completion of *Le grand macabre*.

Lastly, the possible relationship in Ligeti's mind between the *Passacaglia ungherese* and the opera suggested by this passage and its 'PASSACAGLIA → OPERA' label is interesting because there is such a clear relationship in the sketches between the opera's closing passacaglia and *Hungarian Rock*, completed a few months prior to *Passacaglia ungherese* in 1978. In fact, in the preserved sketches of *Hungarian Rock* available at the Sacher Stiftung, one finds mixed in with fragments of what eventually became the ground of *Hungarian Rock* an incomplete (though lengthy—51 bars, in all) draft of a 'tango' based on the ground of the opera's final passacaglia. That this draft was in line with the direction Ligeti was going, at least for a time, in composing what eventually became *Hungarian Rock* is clear from all the potential titles he went through for that piece. The working title in his letters with Nordwall was simply 'Tanz,' but on the preserved notes and sketches, one finds many more possibilities. Following is a complete list, with page numbers (according to the ordering of materials within the 'Skizzen' folder of *Hungarian Rock* materials at the Sacher Stiftung): *Tango Pasacalle* (pp. 1, 5), *Passacalle Tango* (p. 1), *Hungarian Rock (Chaconne)* (pp. 1, 3), *Amero-Hungarian Rock - Chaconne* (p. 3), *Hungaro-American Rock - Chaconne* (p. 3), *Les Folies d'Hungarie ? Chaconne* (p. 3), *Ciaccone allo con moto* (p. 4), *Ciaccone alli ungherese* (p. 4), *Hungarian Rock + Tango!* (p. 4), *Tango - Ciaccone* (p. 4), *(Hungarian Rock) and Gassenhauer* (p. 4), *Passatango* (p. 5), *Passacaglia en (an) Tango* (p. 5), *Tango con passacagli* (p. 5), *Passacaglio tango* (p. 5), *Pasacalle tango* (p. 5), *Paso tango* (p. 5), *Passacaglie tango* (p. 5).

This list demonstrates that both the passacaglia form (and, along with the chaccone, the ground-bass variation form more generally) and the tango style were part of Ligeti's general conception of what was to become *Hungarian Rock*. However, we also see the repeated occurrence of the

adjective 'Hungarian' in three different languages, including Italian—'ungherese.' In fact, *Ciaccone alli ungherese* sounds suspiciously similar to *Passacaglia ungherese*. That is all simply to say that the general concepts and some of the specific materials which Ligeti was exploring in the course of composing the opera's finale, *Hungarian Rock*, and *Passacaglia ungherese* seem somewhat fluid. If we can further demonstrate that that fluidity extended also to Ligeti's Piano Concerto and other works from 1982 and beyond, then the notion of a 'stylistic caesura' (Ligeti's phrase) or a 'stylistic crisis' (Searby's 2010 title), followed by a wholly new style, becomes considerably more difficult to maintain.

The remaining red ink one this page provide clues that on this first Piano Concerto/Cembalo Mittelton page, Ligeti is working on refining a bass line which is a twelve-tone row, and experimenting with different contrapuntal possibilities above that bass line. He then takes the final version on this page as the basis for subsequent preparatory work on another page completely dedicated to the *Passacaglia* (currently located in the *Passacaglia ungherese* sketch materials at the Sacher Stiftung). Thus, this first Piano Concerto/Cembalo Mittelton page most likely antedates the other sketch material for *Passacaglia ungherese*.

The second Piano Concerto/Cembalo Mittelton page has significantly less material than the first. Across the top of the page, it is labeled 'Zongverseny__ — Szimmetrikus modell' ('Piano Concerto — Symmetrical model'). The first fragment of material is a wedge motive: beginning with the dyad F-sharp/G (in stemless, filled-in noteheads), two voices move in contrary motion by semitone from the initial minor second, through a minor third, perfect fourth, perfect fifth, major sixth, and finishing with a major seventh and arrows by each line, indicating that the pattern continues.

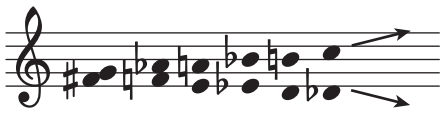

Figure 4. Wedge motive from Piano Concerto sketches, packet 2/9, folder 3, p. 2.

Following in lighter pencil are two short musical fragments and some text of varying legibility, as well as a brief rhythm-contour gesture in red pen and some text notes. Two of these fragments should be noted. First, figure 5 shows the gesture which Ligeti pens in red. We will return to this gesture shortly.

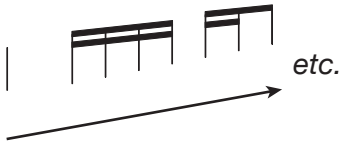

Figure 5. Rhythm-contour gesture from Piano Concerto sketches, packet 2/9, folder 3, p. 2.

The second fragment (figure 6) is noteworthy as its bass-staff material looks suspiciously like the warped 'horn fifths' which open the 1982 Horn Trio:

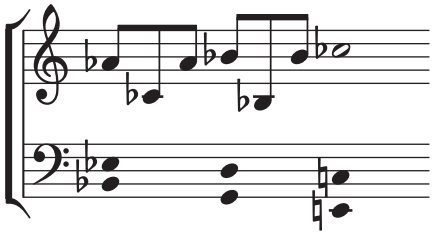

Figure 6. Horn-Trio-like motive (left hand) from Piano Concerto sketches, packet 2/9, folder 3, p. 2.

These are not the exact intervals on which Ligeti ultimately settles in the Horn Trio (see figure 7), but the resemblance is striking.

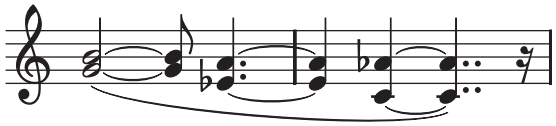

Figure 7. Opening 'horn-fifths' motive from Ligeti's Horn Trio (1982).

Below this section, beginning on the tenth staff of this 24-staff page is material for *Passacaglia ungherese*. On the right side of this staff is written in large letters, 'CEMBALO MITTELTON,' this time with no horizontal line to separate material. The *Passacaglia* material is brief. First is a descending chromatic scale from C5 to C-sharp4, with C4 following in parentheses (figure 8). The pitches of

the scale are numbered from 1 (C5) to 12 (C-sharp4). All are stemless noteheads, with all the notes of the C-major scale (i.e., the white keys—or, rather, the black keys on a harpsichord) as open noteheads, and with B-flat, G-sharp, F-sharp, and E-flat as filled-in noteheads. Oddly, he notates C-sharp as an open notehead, but this is surely a mistake on Ligeti's part. At the top of the first page of the sketch material dedicated to *Passacaglia ungherese*, Ligeti provides a similar scale, but ascending and with C-sharp filled in (figure 9). That scale is labeled 'Tüne' and is accompanied by a list of the seven just-tuned major thirds in quarter-comma mean-tone. ('Tüne' may be short for one of a number of Hungarian words, most of which are related to the concept of 'symptom' or 'phenomenon'—thus, it may refer to this chart as providing the characteristic sounding results of the mean-tone system.) It seems fair to assume that both of these scales are meant to remind Ligeti of the five chromatics used on the mean-tone keyboard.[2]

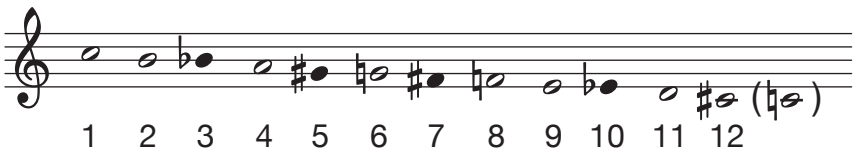

Figure 8. Mean-tone scale from Piano Concerto sketches, packet 2/9, folder 3, p. 2.

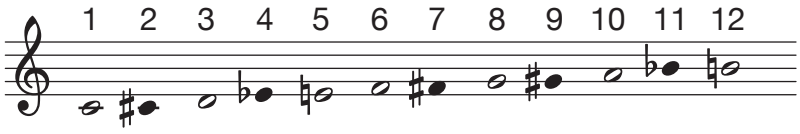

Figure 9. Mean-tone scale from Passacaglia ungherese *sketches, p. 1.*

Following the scale on the second Piano Concerto/Cembalo Mittelton page is a long series of dyads, labeled 'Passac.-__.' This fragment is an incomplete catalog of possible progressions between non-wolf dyads which preserve a single pitch between each pair of adjacent dyads.

[2] So that he uses, for example, F-sharp always instead of G-flat, minimizing the possibility of notating a major third on G-flat (which, as a diminished fourth—F-sharp/B-flat—would sound rather different than one might expect from a just-tuned G-flat/B-flat third).

At the bottom of the page is something odd. Below the sequence of dyads is the label 'Tango-«Verbunkos»,' followed by a (pencil) sketch of the rhythm-contour gesture penned in red immediately above the *Passacaglia* material (figure 5). To the right of this, Ligeti writes:

Suite 1 Verbunk
2 Lassu [slow] coulée
3 gyors [fast]

While I cannot be certain, it seems that one of two things is most likely: 1) after the scale and series of dyads, Ligeti leaves *Passacaglia ungherese* and returns to piano-concerto thoughts, entertaining the idea of three-movement suite rather than a grander multi-movement concerto structure, or 2) Ligeti considers including the 'Mittelton' material as one of three movements in a suite, which also includes a Hungarian-flavored tango (perhaps the tango hiding in the sketches for *Hungarian Rock*[3]) and some other fast movement. I think that the first option is more likely. First, Ligeti and Nordwall constantly refer in their 1978 letters to each other to *two* harpsichord pieces—with the placeholder titles 'Tanz,' for what later became *Hungarian Rock*, and 'Um Mittelton,' for what later became *Passacaglia ungherese*—not a three-movement suite. (There was mention by Nordwall in a letter dated 17 February 1978 of the possible inclusion of Ligeti's earlier composition 'Coulée' on a recital with 'Tanz' and 'Um Mittelton'; however, 'Coulée' was to come between Ligeti's 'Harmonies' and the harpsichord version of the final movement of *Musica Ricercata*, not between a Verbunkos—or a Tango-Verbunkos—and some other fast movement yet to be composed.) Further, there are several other early Piano Concerto sketch references to a 'Coulée' movement (sometimes with a second de-

[3] Much of the latter pages of manuscript-paper sketches for *Hungarian Rock* housed at the Paul Sacher Stiftung, as mentioned above, are devoted to what amounts to the ground of the final movement of *Le Grand Macabre* converted into the rhythmic feel of a tango. Interestingly, the fragments and draft (incomplete, but substantial) of this macabre tango are interwoven with Ligeti's fragmented sketches of material which later became the ground of *Hungarian Rock*, and eleven of the eighteen provisional titles for this piece found in the sketches contain the word 'tango' (v. six which contain some form of the word 'Hungarian' and four which contain the word 'rock'; one title contains all three words: 'Hungarian Rock + Tango!').

scriptor of 'lassu' or 'passac.'). For instance, the sketch page following the two in question here in the Piano Concerto sketch material at the Sacher Stiftung contains three instances of the word 'coulée,' one of which is the title for the first movement of a five-movement frame outlined near the bottom of the page. Two of the other movements (III. Scherzo and V. Presto) are sub-labeled 'gyors.' Thus, while it is possible that Ligeti at some early point was considering a suite of three movements, of which *Passacaglia ungherese* would be a part, it seems more likely that this 'suite' was part of Ligeti's early thinking about the Piano Concerto's multi-movement structure, and thus that both the top and bottom of this page is devoted not to the *Passacaglia ungherese*, but early Piano Concerto work.

These two pages quickly call into question the standard chronology of Ligeti's compositional activity in the years following his opera, *Le grand macabre* (completed 1977, premiered 1978). Specifically, it is typically assumed that Ligeti began composition of the Piano Concerto in 1980—and began work on material which actually made it into the final score in 1985 (cf. Griffiths 1994; Floros 1994; Floros 1996, p. 197; Steinitz 2003, pp. 315-316, 321; Ligeti 2007, p. 300). However, these sketch pages suggest the possibility that Ligeti began work on the Piano Concerto in 1978, perhaps earlier. The reason that many scholars assign a 1980 start date to the Concerto is simply that the earliest date marked on one of the sketch pages for this work is 14 June 1980. However, most of the sketch pages for this work (and Ligeti's others) are undated. The early dated pages were materials sent to Mario di Bonaventura, the dedicatee, to prove that he had indeed begun work on the piece (Steinitz 2003, p. 315). That he would not send him the very first sketch pages is a reasonable possibility. That he would, rather, send the most recent, most polished material seems more likely.

With an understanding, then, that 1980 is a provisional, no-later-than date, the two sketch pages in question here open up the real possibility of sketchwork done in 1978, simply from the way the pages are laid out. The Piano Concerto material comes at the top of both pages, with the *Passacaglia ungherese* material following it. It is much simpler to imagine that Ligeti would write something

at the top of the page first, and use the remainer of the page for later work than that he would compose multiple pages of material starting in the middle of these two pages (and at different points on the pages) but at the top of other pages (in the *Passacaglia ungherese* packet), leaving the top of these two pages blank from 1978 until sometime in 1980 or later when he would use them again for the writing of short Piano Concerto fragments. Thus, absent hard evidence that Ligeti did not begin work on the Piano Concerto until 1980, we can fairly confidently conclude that Ligeti wrote the material labeled Piano Concerto on the top of these two pages before he wrote the material for *Passacaglia ungherese*, which was completed (and received in the mail by Ove Nordwall) by the end of 1978.

These two pages, however, raise far more substantial questions than simply the date of Ligeti's first jotting of material for some piano concerto to be completed in the distant future. The years following his opera, and preceding the completion of the Horn Trio, are typically recounted as a time of minimal compositional activity as well as a 'stylistic caesura' (Ligeti/Szigeti 1983), followed by a radical shift in direction in Ligeti's music, represented by the Horn Trio (1982), the first book of Piano Études (1985) and the Piano Concerto (1986/88) (c.f., Griffiths 1983, pp. 105, 108; *Ligeti in Conversation* 1983, pp. 67-71; Ligeti/Szigeti 1983; Drott 2001, pp. 275-76; Searby 2010, p. xv; et al.). By contrast, the harpsichord works of 1978 are seen as insignificant, not 'real Ligeti' (Searby 2010, p. 101), and evidence of his 'stylistic crisis' (Searby 2010, title). (In fact, Ligeti gives two interviews—Beyer 1992-93/2000; Lobanova 2002; both cited in Searby 2010, p. 101—in which he claims that the two harpsichord pieces are not 'real Ligeti' or even 'real compositions,' but instead are 'musical arguments' with his students and 'ironic comments.' Taylor (1994), Toop (1999, p. 173), Easwaran (2000), and Searby (2010, p. 101) recount these interviews and this interpretation of these two works.) However, if Ligeti began work on his Piano Concerto soon after—or perhaps even before—completion of the opera, and certainly before the completion of *Passacaglia ungherese*, we have cause to reconsider the idea of a break in compositional activity.

Further, if Ligeti worked on the Piano Concerto at the same time as the harpsichord pieces of 1978 and in close proximity to the opera, the possibility arises of shared material or stylistic approaches between the opera, the harpsichord pieces, and the Piano Concerto. Is there shared material between these works and/or Ligeti's sketches for them? And if so, does that shared material persist into later work on the Piano Concerto and other 'late-period' works? If so, we would have significant reason to question the standard three-period narrative of Ligeti's career, which would see 1978-1981 as years of minimal compositional activity and a stylistic break, as well as the common dismissal of the 1978 harpsichord works as insignificant in that broader narrative. Thus far, however, I have only demonstrated the likelihood that Ligeti wrote down a couple small fragments in 1978, or soon before, that he thought would work well for a piano concerto. To establish that these fragments have anything to do with *the* Piano Concerto of 1986/88 or suggest some kind of stylistic continuity across the 'caesura' requires first to ask if there is any relationship between the material labeled 'Piano Concerto' on these two sketch pages and the *Passacaglia ungherese* material on these pages—or any material known to be from this time period—and then ask whether there is any relationship between these works and Ligeti's compositions from 1982 and beyond.

We can, indeed, see a relationship between one Piano Concerto fragment and some of the *Passacaglia* fragments on these pages. The wedge motive, notated above from the Piano Concerto material on the second page in consideration (figure 4, here reproduced with intervallic analysis as figure 10), seems to be the basis for the three two- and three-voice counterpoint fragments for the *Passacaglia* on the first of these two pages.[4] All three of the contrapuntal fragments follow the general wedge shape between the two (or the outer) voices, but the third fragment bears the most specific resemblance to the wedge in the Piano Concerto section of page 2:

[4] The content of these two pages suggests that the second page in the Sacher Stiftung's ordering of the packet was penned prior to the first.

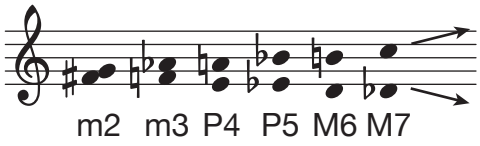

Figure 10. Wedge motive (with my interval analysis) from Piano Concerto sketches, packet 2/9, folder 3, p. 2.

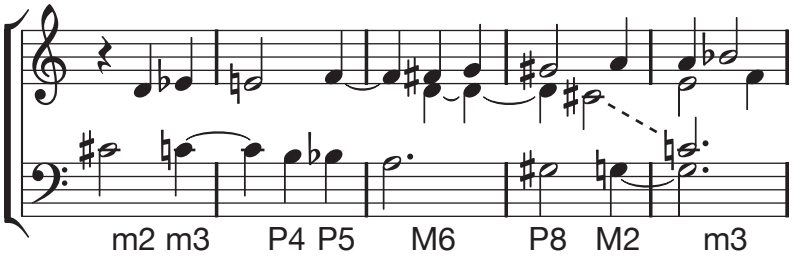

Figure 11. Contrapuntal fragment based on wedge motive (with [my] interval analysis) from Piano Concerto sketches, packet 2/9, folder 3, p. 1.

The relationship between these two is clear: they are both wedges, beginning with a close harmonic interval and moving out in contrary motion to ever wider intervals. The relationship is even stronger, though: this contrapuntal fragment appears to be a composing-out of the exact wedge motive found in the Piano Concerto sketch material (transposed down five semitones), elaborated only with simple upward and downward suspensions.

There is, however, one difference between the harmonic structures of these two wedges. Were Ligeti to follow the pattern of the wedge exactly, he would land not on a major seventh—A-flat/G—but a diminished octave—G-sharp/G—an irregularly tuned instance of interval-class 1, and the same would occur on the following chord, as the voices exchange pitch-classes. Ligeti changes both of these sonorities, as we see in figure 11, and subsequently resumes the original intervallic pattern, with the G/B-flat outer-voice dyad in the final bar. These changes result in a drastic difference in sound: a major seventh becomes an octave, and a minor ninth becomes a major ninth. Both of these intervals, particularly the first, loses significant harmonic bite. However, Ligeti's third voice, which has by now entered the texture, makes up for this, adding a tritone to each sonority. Specifically, it adds a D to the G-sharp octave, and it adds a C-sharp to the G/A ninth. Thus, while we lose

the dissonance of the original pattern's seventh and some of the sting of the minor ninth, we gain the dissonance of the double-tritone chord and the following (026) sonority. Thus, even at the points where the intervallic structure of the original wedge pattern is changed, Ligeti preserves the effect of that original pattern through the specific additions of the middle voice.

But why does Ligeti change these two intervals in the first place? It is possible that Ligeti's avoidance of 'wolf' simultaneities (i.e., diminished fourths, augmented seconds, augmented fifths, and diminished sevenths, which in equal-tempered space would produce the enharmonic equivalent of a major or minor third or sixth) is being extended here to dissonances. That is, Ligeti may be avoiding both wolf consonances *and* irregularly tuned dissonances—in this case, augmented unisons (chromatic semitones) and diminished octaves—within the mean-tone system.

Of course, these two interval changes are not enough to establish a pattern conclusively, and there are no dyad charts or the like in the sketches that demonstrate Ligeti seeking to use minor seconds and major sevenths to the exclusion of chromatic semitones and diminished octaves, as we find demonstrating Ligeti's desire to use non-wolf thirds and sixths and avoid diminished fourths, augmented fifths, etc. (see figures 20 and 22 and related discussion). However, we do see Ligeti employing regularly tuned ic1s liberally and avoiding irregularly tuned augmented unisons and diminished octaves in the finished score to *Passacaglia ungherese*, suggesting that such a principle may have been in operation throughout this compositional process, and thus in the fragments like figure 11.

In the finished score, we find numerous simultaneities which include minor seconds or major sevenths. However, there are very few augmented-unison or diminished-octave simultaneities. By my count, there are 16. But none of these irregularly tuned dissonances are co-articulated; that is, when one of the two notes is sounded, the other has already decayed significantly on the harpsichord. Further, all are relegated to the last 15 bars (where the speed of the melody—and thus the number of notes per beat—and the density of the harmonies have increased greatly). Lastly, only 5 of

them last longer than a sixteenth note: of those, four are eighth notes (m. 60, beat 3; m. 63, beat 2; m. 65, beat 1; and m. 67, beat 1), and one is a half note (m. 74, beat 2). The half note, though, is formed with a note that has been sounding for almost an entire measure (well into the *ritardando*), greatly minimizing any heard irregularity of intervallic tuning. (In fact, it is quite possible that the B-natural sustained between mm. 73 and 74 has ceased to sound at an audible volume by the entrance of B-flat in m. 74.) Thus, we can see that where Ligeti doesn't avoid these intervals altogether, he avoids them to a large extent, and when he does use them, their sonic impact is greatly diminished by the way in which he incorporates them. This suggests that the intervallic changes of the wedge motive in the above contrapuntal fragment (figure 11) is not an isolated occurrence, but rather part of a larger pattern of avoiding harmonic wolf consonances and irregularly tuned dissonances in the composition of *Passacaglia ungherese*.

With all of this analysis in mind, we can read this contrapuntal fragment, then, as a composing out of the original Piano Concerto wedge motive through the filter of the constraints of regularly tuned mean-tone harmonies, noting that where structure cannot be preserved after such filtering, Ligeti largely reproduces the original effect through other means (namely, dissonant harmonic intervals introduced by the middle voice). Thus, we can see a connection here between material which he originally conceives for the Piano Concerto and derivative material worked out in the context of composing *Passacaglia ungherese*.

But, again, this connection may simply be one between a fragment Ligeti generated while thinking about *a* piano concerto, but which was quickly reassigned to *Passacaglia ungherese* without any relationship to later material for *the* Piano Concerto. Thus, we must ask, is there other material in the Piano Concerto or Ligeti's preparatory sketches for it which demonstrate a relationship with this material, *Passacaglia ungherese*, or other pre-1979 works?

Indeed, there is. We find four general traits common to the early sketches for both the Piano Concerto and *Passacaglia ungherese*: twelve-tone rows (with various schemes for building harmonies from them), sequences of major and minor thirds and sixths (often in third-sixth alternation), sequences of triads (and sometimes seventh chords), and a tendency to lay out the 'harmonic palette' (Searby's term, 2001, p. 19)—i.e., the set of possible harmonies within some set of constraints—before composing harmonic sequences.

First, there are numerous twelve-tone basses in Ligeti's sketches for *Passacaglia ungherese*, as he attempts to compose the ground on which the movement is based. Most of the twelve-tone basses can be found in the 'Cembalo Mittelton' pages in the Piano Concerto packets at the Sacher Stiftung. However, one twelve-tone bass from the bottom of the first of those pages does make it into the (later) sketch material found in Sacher's packet for *Passacaglia ungherese*. There it is no longer simply a bass line but is accompanied by a line which forms major thirds or minor sixths with the bass, as in the following figure.

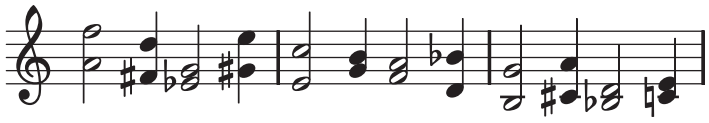

Figure 12. Twelve-tone row bass line with an accompanying line forming major thirds and minor sixths from Passacaglia ungherese *sketches, p. 1.*

Twelve-tone rows are also in plentiful supply in the Piano Concerto sketches, where they often serve as the basis for differing kinds of harmonic-sequence construction. Such is the case with the following row, which is found on the earliest dated sketch page for the Piano Concerto (14 June 1980).

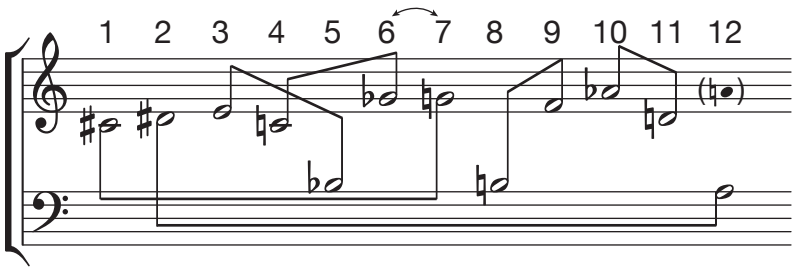

Figure 13. Twelve-tone row from Piano Concerto sketches, packet 2/9, page labeled '14 June 1980.'

Along the left side of this page, Ligeti notates a single orchestral chord to open a movement, but the rest of the page is devoted to harmonic material, almost all of which is based on this row. At the top of the page is the row, and below it are its 'mirror' (inversion), retrograde, and retrograde inversion forms, and below that a series of harmonic sequences. The first of these harmonic sequences is a series of dyads derived from the row. The first dyad is comprised of notes 1 and 2 from the row, the next dyad notes 2 and 3, then 3 and 4, and so on. The next sequence is a series of triads constructed the same way: notes 1, 2, and 3; notes 2, 3, and 4; and so on. The same type of series of tetrads and pentads follow. Such a generation of harmonies from a twelve-tone row occurs several times in the Piano Concerto sketches. Though the mechanisms for generating the harmonic sequences are different, using a twelve-tone row along with some mechanism for generating harmonies from it is a recurring compositional procedure in both the Piano Concerto and *Passacaglia ungherese* sketches.

In the cases of both *Passacaglia ungherese* and the Piano Concerto, row-based melodies and bass lines do not find it into the final score. Twelve-tone rows remain something Ligeti engaged early in the compositional process for both pieces, but which he left out of (or abandoned before composing) the final score. However, aggregate completion in short, closed passages *is* a process we find in both finished works. In the case of *Passacaglia ungherese*, we see it most clearly in the ground: two eight-note lines combine to form a complete aggregate with the minimum four pitch classes repeated.

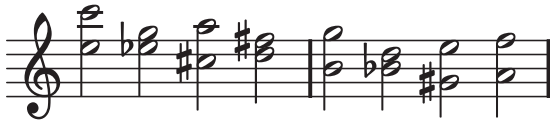

Figure 14. Ground of Passacaglia ungherese, *mm. 3-4.*

In a brief essay, 'Über meine Entwicklung als Komponist' (1989, unpublished in the original English, trans. Lichtenfeld in Ligeti 2007, vol. 2, p. 119-21), Ligeti remarks that the third movement of the Piano Concerto contains several passages in which the two complementary whole-tone scales form different but simultaneous 'harmonic fields' ('*harmonische Felder*') that together form a complete aggregate (ibid., p. 119). In one of these passages, we find the framework of this aggregate completion to be quite similar to the ground of *Passacaglia ungherese*. At rehearsal M, the solo piano plays a sixteenth-note line in conjunction with a series of sustained chords. Those chords are major/minor chords, played as major-sixth dyads in each hand. As figure 15 shows, in the first four chords, each hand completes its whole-tone collection, and together they complete the twelve-tone aggregate. Just as in the *Passacaglia ungherese* ground, the aggregate is completed in sixteen notes, with four pitch classes repeated. (It is worth noting that within Ligeti's chosen framework of performing each whole-tone scale as a series of major-sixth dyads, the aggregate cannot be completed in less than four chords, or sixteen notes.) After the first aggregate is completed, the four chords are repeated, presenting a second aggregate. Then Ligeti changes the melodic pattern followed by the two hands, but again completes the aggregate through a series of four major/minor chords. Finally, Ligeti returns to the opening pattern, which degenerates mid-pattern as Ligeti abandons this process.

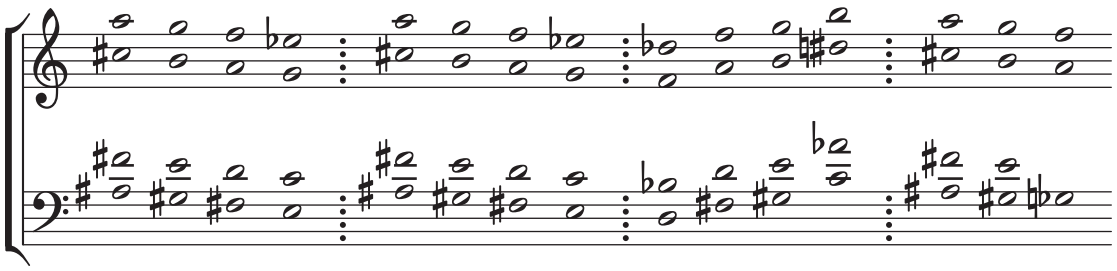

Figure 15. Harmonic progression in the solo piano part of Ligeti's Piano Concerto, movement III, rehearsal M.

These two examples demonstrate that in composing both the *Passacaglia ungherese* and the Piano Concerto, Ligeti explored the possibility of twelve-tone-row-based composition during the sketch process, and later abandoned the row but preserved aggregate completion through short, economical processes in the final scores of both works.

Sequences of consonant dyads—notably major and minor thirds and sixths—are also prominent in the sketches for both works. And unlike the twelve-tone-row-based harmonic sequences, sequences of consonant dyads appear not only in the sketches, but in the final scores of these two works, as well. Figure 12 above demonstrates one early attempt at a sequence of consonant dyads in the sketches for *Passacaglia ungherese*, but most of the two-voice harmonic sketches for *Passacaglia ungherese* are sequences of consonant dyads (with the exception of the contrapuntal fragments mentioned above). And, of course, the two-voice ground on which Ligeti settles for the final version of the movement is composed entirely of major thirds and minor sixths (figure 14 above).

We also find such third- and sixth-based sequences in the Piano Concerto sketches. For instance, on a page dated 10 August 1981, we see Ligeti attempting to compose a sequence of the twenty-four equal-tempered major and minor thirds which can be divided into four bars of six dyads, each of which comprise the chromatic aggregate. He was ultimately unsuccessful—at least on this page—but the goal is unmistakable when viewing this series of sequences.

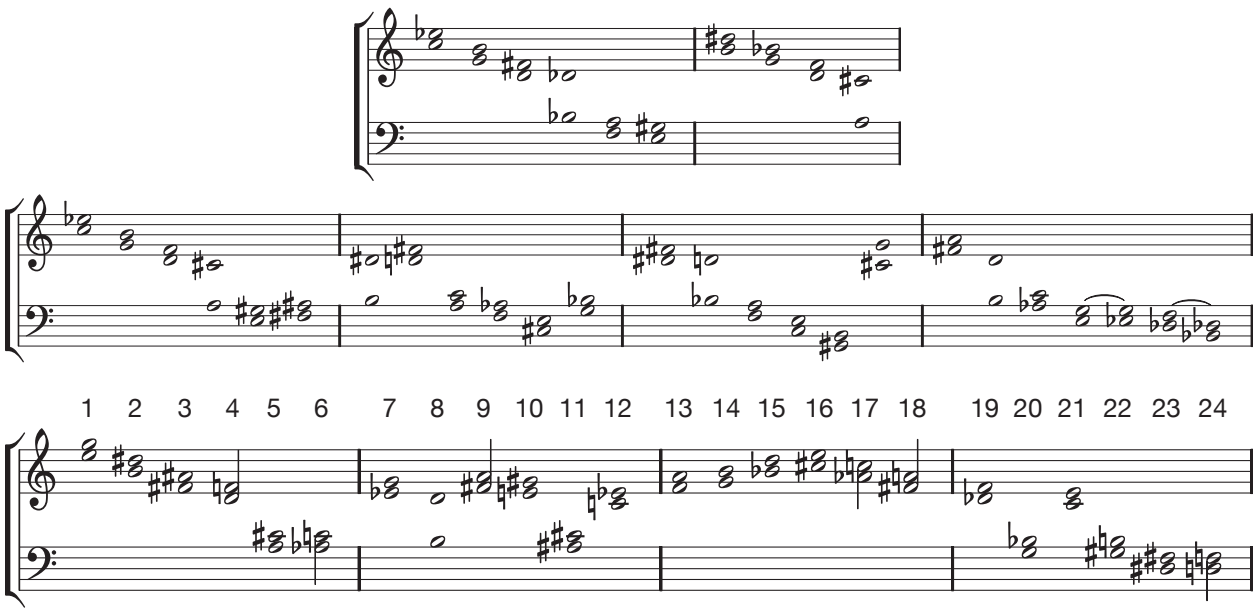

Figure 16. Series of three sequences of thirds from Piano Concerto sketches, packet 2/9, page labeled '1981 Aug 10.'

These are by no means the only third- and sixth-based sequences in the Piano Concerto sketches, but they are particularly interesting because they show that Ligeti's experimentation with twelve-tone-derived processes and consonant dyad sequences (and their combination) continued beyond the 1977 opera and the 1978 harpsichord pieces through at least late-1981.

Another, much later, sketch page for the Piano Concerto (dated January 1987) presents a number of melodic fragments for the fifth movement in parallel major sixths. In fact, we can find passages in the solo piano part for almost every movement of the concerto which contain such parallel-third or -sixth melodic writing. This includes rapid passages like movement I, rehearsal Y; movement II, rehearsal K; and movement V, rehearsal C. It also includes slower, more obviously melodic lines like movement IV, rehearsal C (minus two bars), rehearsal F, and rehearsal T. It also includes the *molto cantabile* line in the solo piano part at movement III, rehearsal M (figure 15 above), where both hands play parallel-sixth lines, which combine to form major/minor chords. Taken altogether, we see in these sketches and scores the prominence and regular recurrence of consonant-

dyad sequences in Ligeti's sketchwork and compositions from 1977, 1978, 1981, 1985-86, 1987, and 1988.

Sequences of triads—often sequences exclusively of major triads—are also a common occurrence in sketches for both of these works. In the case of *Passacaglia ungherese*, these sequences of triads are often generated from a sequence of consonant dyads which appeared earlier in the sketch material. Such is the case with figure 17, below.

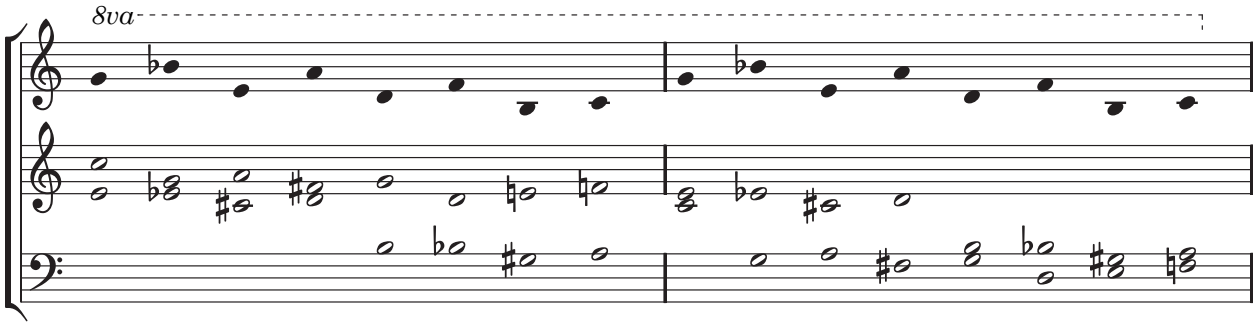

Figure 17. Final Passacaglia ungherese *ground with added third voice from* Passacaglia ungherese *sketches, p. 1.*

Here, the sequence of dyads is the final version of the ground which appeared as the basis of the piece, and a third voice is added to complete the *major* triad to which each major third or minor sixth belongs.

There are numerous triadic sequences in the Piano Concerto sketches, as well. Following is one simple example, undated, where Ligeti composes a series of root-position triads (one minor, and the rest major) based on a stepwise bass progression.

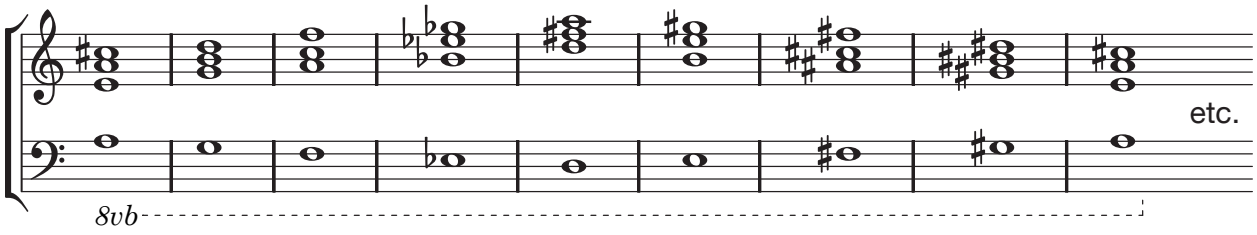

Figure 18. Sequence of root-position triads from Piano Concerto sketches, packet 2/9.

Sequences of triads (or seventh chords) appear in several prominent passages of the final version of the Piano Concerto as well, typically generated by several voices moving in parallel motion. In the first movement, we see such passages at rehearsal A (woodwinds, figure 19), rehearsal C (woodwinds and trumpet), rehearsal G (strings, dominant-seventh chords), and rehearsal H (upper woodwinds playing augmented triads with the bassoon and brass playing major triads, all playing in parallel to form what amounts to parallel sharp-eleventh chords). The fourth movement presents similar parallel progressions, with parallel major thirds in the woodwinds throughout the opening bars, parallel major triads at rehearsal C, and parallel dominant-seventh chords at rehearsal D. These salient passages, from both the 1986 score and the 1988 addition, demonstrate the prominent role that simple triadic sequences play at every stage of the compositional process for the Piano Concerto.

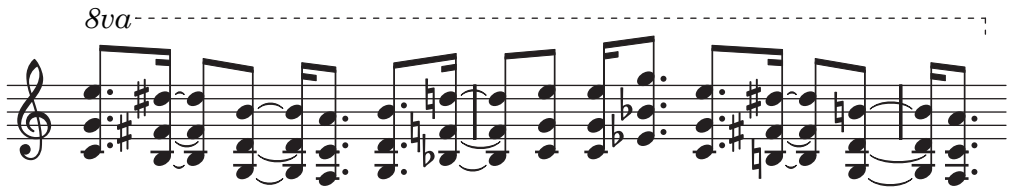

Figure 19. Flute, clarinet, and bassoon lines forming a series of parallel major triads in the Piano Concerto, movement I, rehearsal A.

Lastly, we see a commonality in the way Ligeti lays out his 'harmonic palette' ahead of composing sequences of harmonies in his sketches for the Piano Concerto and *Passacaglia ungherese*. Figure 20 is a chart of all 17 major and minor thirds possible within the single-chromatic mean-tone system, which we find in Ligeti's sketchwork for *Passacaglia ungherese*.

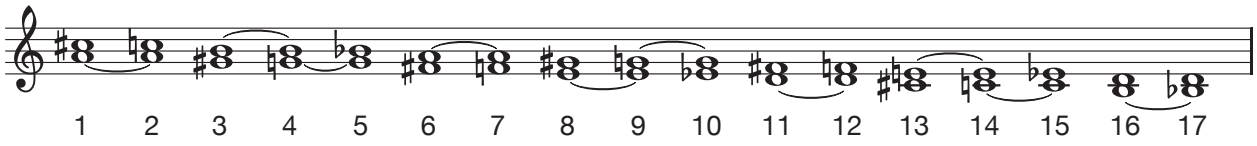

Figure 20. Chart of major and minor thirds in mean-tone tuning from Passacaglia ungherese *material in Piano Concerto sketches, packet 2/9, folder 3, p. 1.*

In an undated Piano Concerto sketch page, he does the same thing for the equal-tempered system (and this is one of several such equal-temperament charts in the Piano Concerto sketch material). On that page, he writes out on an upper staff all of the thirds (minor and major on E, minor and major on F, . . . minor on D-sharp and major on E-flat) numbered 1-24, and on the staff below it, their inversions numbered 25-48.

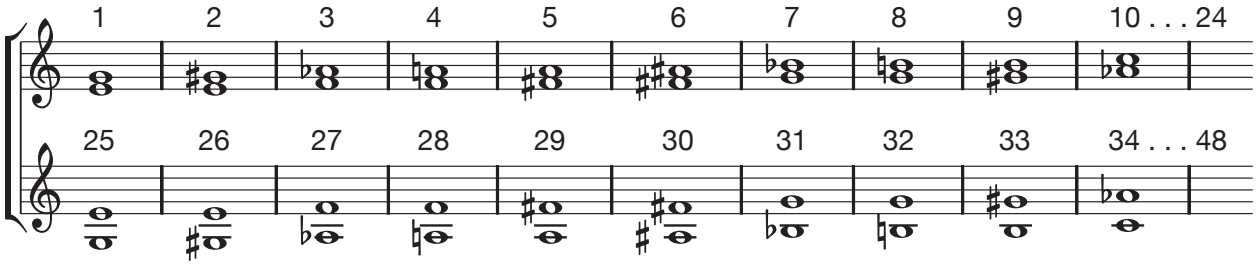

Figure 21. Abbreviated chart of major and minor thirds and sixths in equal temperament from Piano Concerto sketches, packet 2/9, folder 3.

It is difficult to speculate why Ligeti would create such a chart in equal temperament. The utility of a chart of the seventeen mean-tone thirds serves as a reminder of which thirds he can and cannot use in mean-tone tuning without a change in intonation, but presumably Ligeti would have no difficulty in remembering all 48 major and minor thirds and sixths! Further, in passages where he seeks to use all twelve pitch-class transpositions of a particular interval, writing the names of the twelve pitch-classes in the side column and crossing them out or writing a mark next to them as they are used suffices in many of his sketches (and there are no such marks on the charts for mean-tone or equal temperament suggesting that they were used for such a purpose). However, the fact that he produced and preserved several of these charts, and the similarity between these charts and the corresponding mean-tone diagrams suggest Ligeti was doing more than just doodling when he made them. And in any case, their resemblance to their mean-tone counterparts is worth noting.

There is another similar chart in the *Passacaglia ungherese* sketches. Once he has settled on the idea of using only major thirds and minor sixths for the ground, he writes out the eight mean-

tone major thirds at the top of a page, followed by sketches based thereupon. However, after the first ground attempt on that page (which incorporates both thirds and sixths), he takes a step back and reorients himself, laying out a chart of all the major thirds *and* minor sixths available in mean-tone tuning.

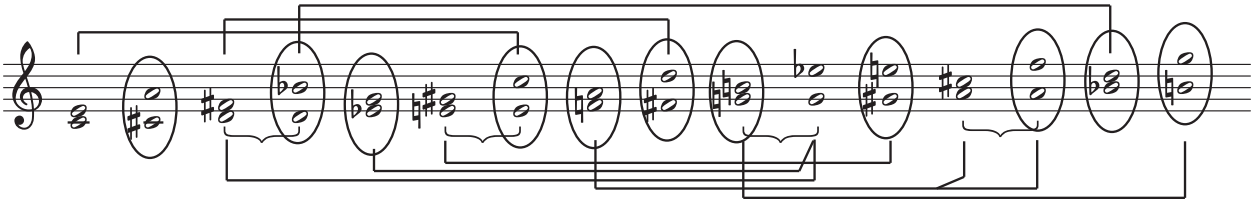

Figure 22. Chart of all just-tuned major thirds and minor sixths in mean-tone tuning from Passacaglia ungherese *sketches, p. 1.*

Interestingly, and further demonstrating the significance of these features across the boundaries of Ligeti's 'stylistic caesura,' these four traits (twelve-tone rows, sequences of consonant dyads, sequences of consonant triads, and pre-sketch laying out of the 'harmonic palette') are shared with the sketches—and sometimes the final scores—for other pieces, as well. For instance, as has already been mentioned, *Le grand macabre* ends with a passacaglia based on a sequence of consonant dyads—a ground comprised of all 24 major and minor sixths—and there are notable relationships between its structure and some of the row-based sketch fragments in the sketches for *Passacaglia ungherese* and the Piano Concerto. *Hungarian Rock* also contains a ground which involves generating a series of triads over a bass. The Horn Trio sketches contain instances of 12-tone rows and triadic sequences (in addition to the strong resemblance between its opening 'horn fifths' theme and the early Piano Concerto sketch mentioned above). Sequences of triads and of seventh chords are common in the sketches for 'Fanfares' (the fourth piano Étude), as well as for much later works like *Sippal, dobbal, nádihegedüvel* and the Hamburg Concerto, and even a pre-opera work in *Clocks and Clouds* (1973) (Quinn 2009).

Ligeti's technique of laying out his 'harmonic palette' in the sketches for *Pasacaglia ungherese* and the Piano Concerto can be found in sketches for other late works, as well. For example, the sketches for Ligeti's last two works contain charts that show the dyads created by playing notes on adjacent partials in a given overtone series simultaneously (Hamburg Concerto) or by blowing air through two adjacent holes of a Höhner Chromonika (*Sippal, dobbal, nádihegedüvel*), similar to the charts of dyads formed by adjacent pitches in a 12-tone row found in numerous Piano Concerto sketches and the chart of major and minor thirds possible in the mean-tone chromatic scale in the sketches for *Passacaglia ungherese*. There is another interesting chart in the sketches for the Hamburg Concerto (figure 23). It is incomplete, but on this chart, he notates a number of major and minor triads and the keys and partials of natural horns required to compose the chord, trying to limit himself to two or three natural-horn keys in producing these chords. These kinds of schematic charts are quite useful when Ligeti writes, as he does in the second movement of the Hamburg Concerto, a four-voice chorale for natural horns, based on an original, but pre-conceived, melody and limited largely to a single chord quality (the major-seventh chord—a significant harmonic sonority for Ligeti's later works, as sequences of major-seventh chords can also be found in the sketches for the Piano Concerto and several of the Études for piano). These types of charts also show that the approach Ligeti took in composing consonance- and triad-based harmonic material within the constraints provided by the mean-tone harpsichord (*Passacaglia ungherese*) remained with him until his latest pieces, as he composed consonance- and triad-based harmonic material within the constrains provided by other instruments.

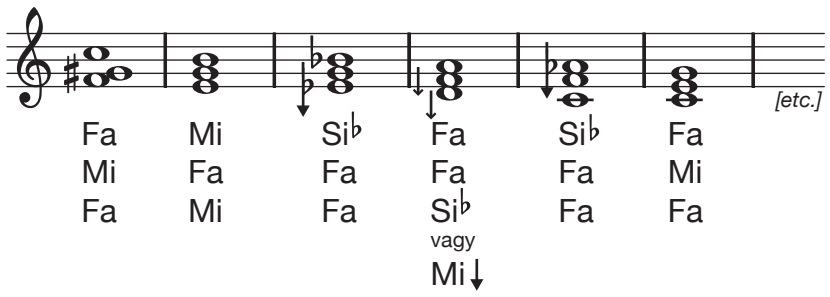

Figure 23. Excerpt from a chord-construction chart in the Hamburg Concerto sketches, packet 1, folder 3. Solfege syllables refer to the key of the natural horn producing each pitch (as in the published score), with the top solfege syllable referring to the upper voice, middle to the middle voice, and bottom to the lower voice. Arrows refer to tuning deviations relative to equal temperament, with the same nomenclature as used in the published score: solid arrows refer to notes tuned approx. 30c below equal temperament (7th partials), lined arrows to notes tuned approx. 15c below equal temperament (5th partials). Hung. 'vagy' means 'or' in English, and refers to the fact that the D4 can be played on a natural horn in B-flat (15 c low) or in E (30c low).

In these examples of twelve-tone rows, sequences of dyads, sequences of triads, and pre-sketch 'harmonic palette' charts, we can see significanrt continuity in the harmonic domain of Ligeti's compositional approach from the mid-1970s to the end of his life, with the two pages of Piano Concerto and 'Cembalo Mittelton' material being a significant early engagement with these concepts.

CONCLUSIONS

The evidence provided in this article from the sketches housed in the Paul Sacher Stiftung's Ligeti Collection suggest several conclusions. First, it seems highly likely that Ligeti began work on his Piano Concerto as early as 1978. Second, it seems plausible that Ligeti began work on the Piano Concerto and/or *Passacaglia ungherese* even before he finished composition of *Le grand macabre* in 1977. Third, and most importantly, there are significant commonalities in concept and material between Ligeti's sketchwork for the Piano Concerto and *Passacaglia ungherese*, and some of these commonalities reach other works, such as *Clocks and Clouds*, *Le grand macabre*, the Horn Trio, the first book of Études, and even Ligeti's last two works, *Sippal, dobbal, nádihegedüvel* and the Hamburg Concerto (though only a subset of these commonalities make it into the final scores). These three conclusions suggest a need to rethink the common approach to the period in Ligeti's career between the opera and the Horn Trio.

As discussed in the opening pages of this article, the standard three-period narrative of Ligeti's compositional career sees the late 1970s as the second major turning point in his career, marking off the middle and late periods. According to this narrative, the middle period begins in the late 1950s with a stylistic *tabula rasa*—a stripping away of some of the primary elements of tonal musical structure, such as harmony, melody, rhythm, and harmonic progressions—followed by a process of gradual recovery of those stylistic elements that ends in the late 1970s with a 'stylistic crisis.' There are certainly ways in which this narrative works and insights which it can provide. For instance, the narrative describes well the relative absence of anything that might be labeled a *melodic line* in Ligeti's major works of the early 1960s, and the slow return of recognizable melodic writing in the early 1970s, culminating in *Le grand macabre*. However, as a controlling narrative of Ligeti's stylistic development as a whole, this narrative falls flat. Not only was this narrative widely accepted well before the end of Ligeti's career and even the composition of many pieces that are the subject of the narra-

tive (Ligeti put this view forward in his interviews of 1983, and Griffith's 1983 biography largely fixed its place in the English-speaking scholarly community), but the evidence put forward in this article demonstrates the dissonance that exists between this narrative and the way in which Ligeti engages several key stylistic elements, not least among them *harmony* and *harmonic progression*.

Further, and perhaps more importantly, this three-period narrative predisposes analysts to (and away from) certain interpretations of Ligeti's pieces of the late 1970s and early 1980s and the harmonic structures employed within them. The interpretations this narrative privileges are difficult—if not impossible—to build from the ground up when examining the harmonic structures present in these works. For instance, the three-period narrative directs the analyst to understand *Le grand macabre* as the culmination of the process of gradual recovery—and specifically to the Finale, a passacaglia, where Ligeti makes his final rediscovery: 'harmonic progression, the natural next step in Ligeti's progressive re-absorption of the elements of Western music' (Griffiths 1983, p. 105). The narrative then dictates that we skip ahead to the Horn Trio and the first book of Études for piano to see what Ligeti makes of this discovery in his new, late style. If we are to consider *Passacaglia ungherese* or *Hungarian Rock* at all, they should be seen as compositional exercises: uncertain what to do after the opera, Ligeti either reworks his most recent 'discovery' from the opera's Finale, or he simply sketches out some possibilities for the upcoming masterpieces. In their own right, these two pieces are usually not even worth naming (not even by Ligeti—cf. 1983 interview with Szigeti). And, of course, the narrative discourages analysts from even looking for meaningful harmonic progressions before the finale of the opera.

The analysis of these works presented in this article—both the finished scores and Ligeti's preserved sketches—tells a different story. First, this analysis suggests that there is much greater continuity in activity and in stylistic content across the 'gap' (Searby 2010, p. 101), stylistic 'refresh' (Steinitz 2003, p. 251), or 'stylistic caesura' (Ligeti 1983) of the late 1970s-early 1980s. Second, this

analysis, along with some other recent scholarly work, suggests that *Le grand macabre*'s pride of place in the standard narrative is unjustified, at least for the domain of harmony. For instance, Ian Quinn (2009) demonstrates the salience and structural significance of a sequence of tertian harmonies in *Clocks and Clouds* (1973), well before the 1977 opera's finale. Thus, *Le grand macabre*'s significance as the moment of reintroduction of 'tonal' harmonies and harmonic progressions is suspect. And the analysis in this article suggests that the two 1978 harpsichord works—and *Passacaglia ungherese* in particular—play a more significant role than *Le grand macabre*'s passacaglia in such a history, as *Passacaglia ungherese* shares more structural features with the harmonic sequences of Ligeti's later works than does the passacaglia from the finale of *Le grand macabre*.

With all of this in mind, I would advocate not a wholesale discarding of the three-period narrative for Ligeti's career, but rather a detailed examination of Ligeti's stylistic history, focusing on one piece or stylistic element at a time. In doing so, we may find trends which align well with the standard three-period narrative. We will also likely find elements whose histories—like that of harmony and harmonic progression—do not line up with this narrative. In the end, whether the various histories bind together into a singular, simple overall narrative, or whether they form a complex, interconnected web, we will reach a more accurate and nuanced picture of Ligeti's career as a whole.

APPENDIX

[include reproduction of two sketch pages from the Ligeti Collection of the Paul Sacher Stiftung]

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