

Compositional proceedings in Ligeti's Piano Etudes, Books 2 nad 3

Abstract from Fabio Grasso's Lecture-Recital at New York University (April 2010)

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This article concerns some harmonic, rhythmical and formal structures in the second and in the third Book of the Ligeti's Etudes.

The composition of the Books 2-3 starts from 1988 and lasts until the first years of the present century. It was broken off only by the composer's final illness and death.

We can find some elements of symmetry and continuity between the six Etudes of the First Book and the eight Etudes of the Second Book (Slide 2).

- The harmonic materials and often the forms are conceived according to similar principles;

- Both in the 1st Book and in the second one there is one purely meditative Etude: *Arc-en-ciel* in the First, *En suspens* in the Second;

- The last Etude of the First Book ends on the lowest keys of the piano, the last Etude of the Second Book ends on the highest keys.

- The four Etudes of the Third Book show many differences, in the harmony, in the form, and especially in the spirit of the compositional approach, but not so much in the rhythmical organization, mostly founded, like in the others Books, on the increasing ramifications of asymmetrical accents. We can say that the rhythmical organization is the only true common element to the three books.

For the second book, the principle Maximum Variation in Maximum Uniformity is the foundation of all compositional proceedings (Slide 3). We begin our analytical route by fixing some general outlines about how this principle applies to the harmony, to the form, to the instrumental writing and to the rhythm. Subsequently we will see some specific examples drawn from the Etudes.

Starting from the harmonic considerations, we can usually find two complementary harmonic fields, whose sum includes all notes. This is a way of composing in polymodal or polyscalar style that is related to some typical aspects of the hungarian tradition gravitating around Bartok.

There is normally one field for the right hand and one field for the left hand; they can be alternated, but not significantly modified.

The use of fixed harmonic fields is a factor of horizontal harmonic uniformity. However, once these fields have been defined, any interaction between them is accepted, so that there is no strong control on the individual resulting interval combinations. This is a factor of vertical variety (Slide 4).

Ligeti uses frequently as complementary superimposed harmonic fields the two six-tones scales, or a scale of white keys in opposition to a scale of black keys. This kind of superimposition can generate many dissonances at the distance of

an half-tone, as well as aggregations which sound like major or minor triads. In effect we find an interesting mix of completely or partially dissonant and completely or partially consonant combinations. We could say that this proceeding is like a sort of chemical reaction between two simple elements, the modal scales or harmonic fields, that gives rise to a composite element with multiple features, not controlled one by one, but always accepted, whatever they are. Ligeti's interest in the science was extended to the chemistry too: that is clearly shown by his treatment of the musical material, in which all is gradually transformed, and nothing is suddenly created nor destroyed.

Naturally the high speed of the harmonic flow does not allow to perceive clear individual entities, but the global effect gives to the listener a sensation of such a kaleidoscopic harmonic richness, which is probably one of the reasons of the fascination exerted by Ligeti even on the public that is not so experienced in contemporary music.

In the second book we can detect two general types of form (Slide 5):

1. A sort of A-B-A, or anyway a form with a main section "A" that is repeated two or more times, with strongly deforming variations, that make it more and more complex, and secondary sections that connect these repetitions, like in a *rondò*.

2. An open form with continuous transitions from a section to another, as described in the diagram of Slide 5. The piece starts with simple articulations; then they become very complex. A central section comes, in which all is suddenly simplified, and a final section with increased complexity fades out in the disintegration of the material.

These two types of form can be combined or variously modified. For example, in Etude 10, *Der Zauberlehrling*, an apparently open form is closed by a final section which clearly reminds the first one. The Etude 14, *Columna infinita*, is an open form in which the level of complexity and the dynamics remain constant from the beginning to the end. Each forms of type 1 (Etudes 8, 11 and 13) present particular features - see below specific considerations.

The principle maximum variation in maximum uniformity is particularly important as regards the instrumental writing (Slide 6). The space of the keyboard is intended as a continuous space, where the movements of the hands happen almost always with maximum gradualness, without jumping, fast extensions or sudden changes of position, which, on the contrary, are realized through a continuous translatory motion with few passages of the thumb, and with many microvariations of similar but never identical fingering's schemes.

This space can also be considered as a cyclic or circular space: a figuration that reaches its low extremity is sometimes continued at the opposite side, starting from its high extremity. It seems a jump, but it is actually a form of continuity.

These considerations can be extended to the dynamic space: a great crescendo to fortissimo has often as final result a pianissimo, as though this level were the following step of its progression.

The rhythmical organization is one of the most important factors of originality of these works (Slide 7).

It can be described in the following way: on the background of an isochronous beating the composer sets some accents, at first regular and symmetrical; then they are asymmetrically shifted, still with the same meter for both hands, and finally they are set completely out of phase, both as regards the main accents of the metrical structure of the piece (if there is one), and the relations between the hands.

This rhythmical process is immediately evident in the first Etude of the Second Book (Slide 8). Its title, *Galamb-Borong*, is a far-eastern onomatopoeic word without literal meaning, related to the Indonesian instruments, sound and harmony who inspired some works of Debussy. Here the right hand has the six-tones field

F - G - A - B - C sharp - D sharp,

the left hand the complementary six-tones field. Each hand keeps its own field from the beginning to the end, with only one exception, that is a consequence of the physical structure of the instrument: when the hands reach the extremity of the keyboard, what happens very frequently in these Etudes, the highest C, that would belong to the harmonic field of the left hand, but that is on the right side of the piano, is included in the notes of the right hand; the lowest A, that would belong to the notes of the right hand, but that is on the left side of the piano, is included in the notes of the left hand.

If we listen to the first page, we easily perceive the progressive asymmetrical proliferation of the accents, according to the scheme of Slide 8. The numbers refer to the groups with accented first note.

A not so different compositional technique is used In Etude 12, *Entrelacs* (Slide 9). Here we find as field for the right hand a defective scale of white keys, and an extended five-tones field for the left hand. During the piece the fields are exchanged between the hands.

Both in *Galamb-borong* and in *Entrelacs* the shifted accents set along the fast successions of sixteenths or eighths are sometimes used in such a way to determinate an approximate hemiola, like in the example of Slide 10 from the Etude number 7. In the Etude 11, *En suspens*, the hemiola, with its exact relations of three against two, is the ground of the entire rhythmical construction. This Etude is the only piece with a form clearly definable as A-B-A', with a varied recapitulation enriched by a faster secondary line.

The spirit of Debussy is present here not only for the timbric atmosphere of the beginning, but also for a curious memory (section B) of *The little shepherd* from *Children's Corner*.

We have to remark that all references to the historical piano repertoire suggested by this article are not to be intended as real quotations, but as instrumental hints, from which the composer draws his inspiration for his own quite personal elaboration.

This is not the only reminiscence of Children's Corner. The Etude 8 (Slide 11), *Fem*, is based on a rhythmical cell which is not so different from those of the final Cakewalk of the Debussy's cycle.

This cell is repeated during the entire Etude, under different masks: it appears with great brightness in the high register (in effect the hungarian word FEM means "bright and sharp"), or with a certain slyness in the low register.

The form refers to type 1 (varied rondò), but the difference between main and secondary sections is extremely slight, perceivable only in virtue of dynamics, registers and use of chromatic insertions; all sections are indeed built on the same rhythmic cell, though always in varied versions, so that one can consider this form as a sequence of variations, followed by an unexpected slow Coda.

The harmonic framework is fairly different from those of the other Etudes: we can track diatonic harmonic fields frequently exchanged between the hands, but this is not the most significant point of view. At the center of the harmonic system there is the bichord of fifth, around which, in the first section, other bichords or single notes gravitate mostly at the distances of one tone or of fourth. These interval relations define a mainly diatonic ambience in each hand, though sometimes in vertical chromatic collision. In the following sections even the inner relations of the fields of each hand are more chromatic, while the chordal aggregations become more dense, through the superimposition of more fifths or derived intervals. A more transparent harmonic texture characterizes, always according to the same principles, the rarefied Coda.

The character of this piece gives us the hint to speak about Ligeti's sense of humour.

One of its earliest manifestations is the *Polyphonic Etude*, the second work of the cycle of five pieces for piano four hands (Slide 12). In this short polyphonic and polyscalar Etude four different very simple melodic lines, one per hand, in four different scales and of four different lengths, are continuously repeated in such a way that they create everchanging rhythmical combinations. The main line, that of the left hand of the second player, has a length of 6 bars, and it is repeated 8 times; the repetitions of the other lines are calculated in such a ratio that allows them to be included in the total 48 bars, plus one for the conclusion. The humoristic result seems to be a strange talk of incommunicability between voices that proceed independently: everyone follows its own route.

Ligeti's taste for the sonorous illusionism reaches one of its peaks in *Der Zauberlehrling*, that is the sorcerer's apprentice (Slide 13). The illusionistic joke is evident in a funny writing that lets appear and disappear rapid figurations in various parts of the keyboard, and in the sudden modifications of the harmonic fields (mostly consisting in scales of white and black keys, these last recalling Chopin's Etude op. 10 n. 5). The form also has something magic, because it reconciles the open form with the varied rondò form – in the last reprise there is a clear simplification of the polyphonic plot.

When the sense of humour crosses over into a paradoxical intent, the pianistic writing becomes even more challenging and provocative than usually. The last Etude of the second book, *Collumna infinita* (Slide 14) is inspired by a sculpture of an hungarian artist, which has the form of a column with countless whorls. It is the human version of a piece for mechanical piano with the same title, and this fact itself reveals the paradoxical character of the work. The congested ascending motions, always fortissimo until 8 f, seem to be the expression of an action-writing, suggested by a certain graphic taste, like in an attempt to fix on the paper one of the infinite possible realizations of an aleatory musical thought.

This humour becomes often sarcasm. In Ligeti's spirit there is a sort of mephistophelean sarcasm related to the diabolic virtuosity, like in Liszt or in Paganini. This component appears clearly in *L'Escalier du diable* (Slide 15), one of the most famous Etudes.

We have to say that this approach is fairly conventional: While listening to the long chromatic ascending scales that come to a peak and then fall again in the abyss, it is difficult not to think to Dante's circles of Hell. Moreover the importance of the tritone, the ancient diabolic interval, is absolutely evident.

The most fascinating suggestion is provided by the central section, where an obsessively repeated signal seems to represent a distorted sound of bells, like a sort of infernal bell.

This signal is recalled just at the end of the piece, for a spectacular final.

Just a consideration about the relationship between harmony and rhythm (Slide 16): here the use of an harmonic field is often in strict connection with the rhythmical position of the notes. For example in the first section we find a chromatic scale formed by the notes on the main ictuses, and a defective six-tones field as harmonic source for the notes on the secondary ictuses.

The most interesting aspect of Ligeti's sarcastic spirit concerns a deeper and more intellectual type of sarcasm.

In *Vertige* (Slide 17), the best example of the open form we have described, the main element is the continuous flow of spiral vortexes of restless superimposed chromatically descending motions. Even here there is a resemblance to an Etude of Chopin, the opus 25 n. 10, but obviously here the chromatic fragments are the object of a scientific seeking of asymmetricity and irregularity (Slide 19). There is no logic in the succession of numbers that determines the length of the

fragments, and therefore the rhythmical beating of the work – in effect the first notes of each fragment, that is its highest pitch, is anyway perceived as slightly accented).

These vertiginous movements seem to depict the human disorientation before incomprehensible events, while the ascending melodic lines, sometimes marked with *espressivo* or *cantabile*, appear as an imploring thrust towards the light and the understanding of a logic order. The inexorable answer to this long imploration, that in the central section is more and more fading out, generates a despairing reaction, which shows a raging and hallucinated sarcasm: this seems to be the meaning of the final consonant harmonies, which blink like hopeless sneers, before vanishing in the sonorous ash of a dark non-sense universe.

We see now which are the main factors of distinction of the Third Book (Slide 19). Firstly the harmonic material comes usually from only one field or scale, to which some extraneous notes are added during the development of the piece.

The Etude 15, *White on White*, is composed on a completely diatonic field, only on the white keys, and some black keys appear in the final section.

The same thing happens in the Etudes 16 and 17, which have as field respectively a sort of defective scale of B flat minor and a scale of C minor. This is the sign of a new compositional approach, which involves even other elements (Slide 20):

- a new attention to the counterpoint: both the beginning of the Etude 15, and the entire Etudes 17 and 18 are in form of canon, with imitation at the distance of one or two octaves, at various temporal distances
- a new structuration of the form: both Etudes 15 and 16 have a very slow introduction, that seems to be a memory of far past ages (a childlike lullaby in the first, an hopeless melancholic remembrance in the second)
- in Etude 17 this evocative trend is represented by many allusions to the last movement of Chopin's op. 35, with its well-known funeral meaning. This piece really exerted a great suggestion on Ligeti, who quoted it literally in the 3 *Pieces* for two pianos

In general the style of the third Book appears less aggressive, less extreme and more inward than in the first and in the second Book (Slide 21).

There is a strong enigmatic character, with clearly interrogative phrases used as final elements: the volatile conclusions of Etudes 15 and 16, the sudden chords in *pianissimo* in Etude 17, the mysterious chords in *pianissimo* in Etude 18, with the surprising A minor as conclusive chord of the entire cycle of the three books.

We can say that these last Etudes are veiled by a certain elegiac sadness, a character that we can find in few other Ligeti's works. One among them can be considered the Second Movement of the Piano Concerto, in which this sadness becomes more tragic, even because of its probable connection with the memory of Warsaw's Nazi devastation.

Fabio Grasso's *Étude Impromptu* Hommage à Ligeti (Slide 22), programmed at the beginning of the recital, bears in its first line the same indication that Ligeti chooses for this movement, *Lento deserto*, and naturally even the character of the first section of this Etude aims to remember the atmosphere of the Concerto. The other ligetian work that has been taken as reference for this Etude is *Automne à Varsovie* (Slide 23), whose descending lines emerging from excited waves of sound are recalled in the central section, not through the rigorous rhythmical mechanisms created by Ligeti, but through a controlled aleatory writing that makes each hand independent from the other one. The melody that arises in the final section is a personally elaborated memory of the last part of the Concerto's second movement, as further homage to one of the most impressive masterworks of the 20th century.