“A turning Kaleidoscope” - György Ligeti’s Fém (1989) as a source of multiplicity for the performer

Elisa Järvi
Sibelius Academy, DocMus Unit
ejarvi@siba.fi

Abstract
This lecture recital and paper approach Piano Etude No. 8 Fém by György Ligeti. Why are there various ways of perceiving the polymetrical structure of the composition? What did Ligeti mean with his performance notes? What kinds of interpretations do justice to the music?
Keywords: Ligeti, piano etude, polymetre, gestalt, performance.

The Piano Etude No. 8, Fém, by György Ligeti (1923–2006) is a prime example of the demands put to the contemporary pianist. It is not so much a question of finger dexterity or technical virtuosity. Rather, the performers are asked to vary their perception of the polymeter with creativity and flexibility.

Ex. 1. Etude Fém by Ligeti, bars 1–6.
(Unpublished copy of the manuscript, Schott Verlag)
Ex. 2. Etude *Fém* by Ligeti. Audio example: 
http://felix.siba.fi/horde/sampo/get.php?id=00d3713fedbff416071c54f1f9f7a10

Live-recording October 30th, 2008. Elisa Järvi, piano

The rhythmical structure of Ligeti’s Etude *Fém* looks first rather simple, because most of the piece consists of quaver notes and quaver rests. The author came across the problem of grouping metre in this particular piece, when teaching the etude *Fém* some years ago. She was at the beginning of her learning process with this composition. But the way in which the other pianist was playing sounded so different from the way she was used to. Finally they found out, that the younger colleague had been practicing with a metronome ticking in 3/8 and she had always had her metronome ticking in 4/8!

According to the performance notes by the composer, the etude should be played “very rhythmically and springy (with swing) so that the polyrhythmic diversity comes to the fore. There is no real metre here; the bar-lines are only to help synchronisation.” Ligeti also requests that the piece should be played “with variety of accentuations ad lib.” thus giving the performer great freedom to make the music “swing” in the best possible way. The principal research question concerns why it is possible to hear the polymetric structure of the etude in multiple ways. What kinds of accentuations do justice to the music?

The compositional background of the etude and also the whole gamut of Ligeti’s interests is wide. Ligeti’s multifarious sources of inspiration range from sub-Saharan folk music through broken mechanisms and dialogue between order and disorder to *trompe l’œil* drawings by Maurits Cornelis Escher and mathematical visualizations.

When analyzing the Piano Etude *Fém* you can recognize rotating rhythmical patterns, *taleae*, characteristic of e.g. 14th century isorhythmic compositions or traditional music by Aka pygmies in Sub-Saharan Africa. The right hand is repeating a talea of 18 quavers and the left hand is repeating a talea of 16 quavers. It is also possible to draw diagrams illustrating the rotating rhythmical patterns in the first half of the etude (Ex.3). A rotating mechanism is revealed, full of symmetries. Later on this “machine” falls apart and starts behaving in an unpredictable way.
Ex. 3. Rotation principle in the bars 1–33.

One round is analogous to 12 bars of the Etude Fém and each narrow coloured block in the two outer circles corresponds to one played quaver note. The narrow grey blocks show the quaver rests. In this picture the semiquavers are coloured so, that the symmetries of the rhythm are visually perceptible. Clockwise rotation. The two inner circles show the beginnings of the rotating rhythmical patterns in both hands.

As noted above, it is also possible to hear elements of different kinds of regular meter in the music. Also, the musical material can be divided into smaller and more irregular units, e.g. groups of quaver notes separated by rests. This problem reminds me of a so called reversible figure, when both “faces” of the same figure are as strong like in the Neckar cube (Ex. 4). It does not present you with some odd mixture of the two alternatives. Also M.C. Escher is playing with this phenomenon in his drawings. Supposedly listening to the etude follows natural grouping mechanisms in perception, studied elsewhere, especially with visual material.
In order to find out more ways of hearing and perceiving the music in this particular etude, the author organized a listening session for four musicians of European and African background with no previous acquaintance with the etude *Fém*. Through the discussion she was confirmed that there are numerous ways of hearing the music depending on the person and on his listening focus, following e.g. only the left hand part. For instance one of the musicians paid much attention to the rotating *taleæ*, some heard the texture in four quaver units and some of them heard the first two quavers creating an upbeat etc. When listening and comparing different recordings of this piano etude, all of these musicians found it interesting to hear various and unpredictable accentuations. The author has understood that in order to do justice to the richness of this complex music, the performer should have the courage to alternate his or her perception of the polymetric texture, even during the performance – although changing perception may sometimes cause a sense of dizziness! When practicing the etude it is advisable to do experiments with all different kinds of accentuations and metrical groupings.

Later this year it will be possible to try out diverse accentuations and to test how tempo changes can affect the audible perception of the music: an experimental internet application has been created by Elisa Järvi and Risto Ranta-aho (2011) at the Sibelius Academy.

The analyses of the possible ways of shaping the metrical structure of this composition may lead the performer to the inner possibilities of the music. It also helps to problematize the primary and probably easiest ways to play the etude – it is likely that a musician with a Western background will easily hear the texture in a regular meter, e.g. 4/8 or 3/8 time signature.
The author’s intuitive metaphor ‘kaleidoscope’ has deepened during the study: kaleidoscopic principles and characteristics (like symmetries, repeats and rotations) were revealed during the analysis of the music. As a result she has gained a better knowledge and deeper understanding of this complex music by Ligeti, as well as greater freedom as a performer. Hopefully this research encourages the performer and the listener to search for new alternative and creative ways of understanding the music. This composition is full of possibilities!

References

Author’s biography
Finnish pianist Elisa Järvı has recently finished her artistic doctoral studies at the Sibelius Academy DocMus Unit. Her written thesis discusses the Piano Etude No. 8 by György Ligeti. Elisa Järvı performs actively contemporary music and also combines that to earlier works including fortepiano repertoire.
www.linkedin.com/pub/elisa-j%C3%A4rvi/14/560/b46