

SYMMETRY IN CREATIVE WORK OF MIKALOJUS KONSTANTINAS ČIURLIONIS

DARIUS KUČINSKAS

Name: Darius Kučinskas, Musicologist (b. Ukmergė, Lithuania, 1966).

Address: Department of Audiovisual Art Technologies, Kaunas University of Technology, 43 Gedimino Street, Kaunas LT-44240, LITHUANIA. E-mail: darius.kucinskas@ktu.lt

Fields of interest: Musical semiotics, music editing and printing, music cognition.

Publications: Kučinskas, Darius (2003) *Three Etudes on Music of Mikalojus Konstantinas Čiurlionis*, Kaunas: Technologija.

Abstract: *The analysis of musical symmetry has a growing literature, including Riemann's (1896) theory of harmonic dualism, Lendvai's axis system (1993), and neo-Riemannian theory. Interesting parallels are found in Washburn and Crowe's (1988) survey of symmetrical patterns in decorative arts across cultures and historical epochs. Each of the four plane isometries – rotational symmetry, mirror reflection, translation, and glide reflection – has its musical counterpart, including transpositional invariance, real inversion and retrograde, sequence, and ostinato. Čiurlionis's art has long been studied for alleged instances of musical metaphor. But Čiurlionis's music after 1904 also suggests an increasingly literal translation from visual principles to musical notation. My paper will show how Čiurlionis's compositional process was shaped by awareness of symmetrical and other visual principles.*

Symmetry is one of the global phenomena found in all areas of our activity and surrounding world. The analysis of musical symmetry has a growing literature, including Riemann's (1896) theory of harmonic dualism, Lendvai's axis system (1993), and neo-Riemannian theory. There is very important research done in last years by several scholars. The articles by Dalia and Judith Cohen (1999), Arthur L. Loeb (1999), Siglind Bruhn (1992, 1996) and Larry J. Solomon (2002) are the best examples. In this study I will discuss the manifestations of symmetry in creative work of Lithuanian composer and painter Mikalojus Konstantinas Čiurlionis (1875-1911). The main idea is that Čiurlionis, as many other composers, used various forms of symmetry, however, his

efforts to find a structure common to music, painting and writing, led him to the only solution found simultaneously in all of his creative work. The symmetry of mirror reflection is the structural backbone of all modes of self-expression of the multitalented Lithuanian artist.

Mikalojus Konstantinas Čiurlionis is considered to be the progenitor and substantiator of the professional Lithuanian music. His creative strivings, discoveries, and thoughts revealed in his letters and especially in the article about music "Apie muziką" (Čiurlionienė 1910) outlined the development way of national music for the entire century. Many prominent personalities of that time – Romain Rolland, Igor Stravinsky, Jacques Lipchitz, Isadora Duncan – were interested in Čiurlionis. Right up to the present day, critics have disputed how his art should be described – as Symbolism, Futurism or Abstractionism. Creative activity of Čiurlionis as a musician proceeded for a few years longer than the work of Čiurlionis as a painter, however it lasted only for 15 years. Even during this period Čiurlionis composed two symphonic poems ("In the Forest" and "The Sea"), Cantata "De profundis" for a mixed chorus and symphony orchestra, string quartet, harmonised over 50 folksongs for chorus, composed a range of pieces for organ and piano – on the whole over 350 compositions.

It is obvious that Čiurlionis' painting studies, which started in 1904, made a decisive influence to his music composition. The elements of plastic forms appear in the musical sketches from 1904-1906. On the other hand, musical form became the pattern of his paintings from 1907. It is also obvious that Čiurlionis tried to create or discover some meta-linguistic system common to all forms of artistic expression. He used separate "musical" letters and even artificial alphabets to find a possibility to "translate" words from one area of art to another, from verbal language to musical, from musical to visual. Symmetry as a universal tool became the cornerstone for all his discoveries.

Theories of musical isometry (cf., Riemann, 1896; Lendvai, 1993) parallel with Washburn and Crowe's (1988) cross-cultural and cross-historical survey of isometries in decorative arts. Four plane isometries described in their book *Symmetries of Culture: Theory and Practice of Plane Pattern Analysis* are mirror reflection, rotational symmetry, translation, and glide reflection. Washburn and Crowe's definition of symmetry allows for resulting shapes that may not appear to be visually symmetrical but may be generated through symmetrical processes. "Symmetry classification is not concerned with the shape of the unit, but with the motions which move the pattern along an axis or around a point. These motions can be thought of as generating the design" (Washburn and Crowe, 1988, p. 55). For example, the "serial" repetition of melodic patterns in Čiurlionis's piano work *The Sea* (VL 317, 1908) undergoes constant rhythmic transformation but, in the pitch parameter, is symmetrical by the process of translation. A similar instance of translation in Čiurlionis's visual work can be found in the swallow motif in the lower left of the *Sonata of Spring: Scherzo* (1907).

Both types of the **musical translation** motion class — transposition and ostinato — are strikingly used in the fourth of the *Besacas* variations (VL 265, 1905). The <Bb, E, Eb, A, C, A, Eb> “theme”, that is constructed of “musical” letters and treated as a cantus firmus or ostinato in the other variations, here is repeated in transpositions that reflect the ordered interval series on the larger level. The result is that the first note of each phrase also spells out the whole series, like a musical version of a “magic square” or matrix. This passage is often cited as evidence of Čiurlionis’s standing as a “proto-serialist.”

Examples of **rotational symmetry** can be found in Čiurlionis’s music as well. Here the interesting discoveries made by Kevin Holm-Hudson this spring should be mentioned. K. Holm-Hudson analyses Prelude VL 324, which starts with up-going row of minor sixths and down-going row of major sixths. “The pattern – writes Holm-Hudson, – can be interpreted as, initially, a series of ascending minor sixths subjected to sequential transpositions of a perfect fifth. After six such transpositions, the pattern is inverted, with descending minor sixths sequentially transposed down a perfect fifth with each iteration” (Holm-Hudson and Kučinskas, 2004). There are also other interesting examples of **rotational symmetry combined with an automorphism** – Prelude VL 272 and Prelude VL 303. Both of them are built on chromatic motion of the left hand. The first prelude forms circle from D to E whereas in Prelude VL 303 a whole circle is drawn. There are, of course, some examples where Čiurlionis is creating texture of rows constructed from augmented or diminished intervals. All the left hand of Prelude VL 294 is based on the two bar ostinato figure, in which the first bar consists of octave/diminished octave/minor seventh, while the second bar is an inversion constructed of minor second/fourth/fifth. Another intriguing example is Prelude VL 327. Here the composer uses a sequence of intervals (fourth, fifth, sixth, seventh, second, triton, third) to construct an ostinato figure in the bass.

Mirror symmetry is most often found in works of Čiurlionis. By using elements of inversion Čiurlionis achieves multilevel symmetry of the whole texture of musical composition. Cycle “The Sea”, part 2 is the most striking example of total symmetry. Bar 4 is made up of the combination of vertical and horizontal reflections, inversions and translations. The right hand in bar 8 is written in two parts where the second voice repeats the first in augmentation. In bar 18 two lines rotate 180° around the note G sharp.

Some of Čiurlionis’s music contains literally “visual” passages. For example, in a passage from the symphonic poem *The Sea* (1903-1907), Čiurlionis staggered instrument entries to suggest the outline of a fir tree on the score. The inverted form of the fir tree is seen in Prelude VL 259 (1904) after the rhythmical pattern in right hand (1st part) is written under the vertical axis of symmetry. There are a number of paintings in which the mirror symmetry lays the background of the visual composition. Cycle of paintings “24 hours” and *Allegro* part from painted “Sonata of the Stars” show the most obvious realization of the mirror symmetry. There are also examples of correspondence

between musical compositions and paintings of Čiurlionis. For example, musical cycle “The Sea” corresponds to the painted three movement “Sonata of the Sea” (Eberlein, 1994) and variations on the theme EASACAS correspond with the painted cycle “The Sparks”. Čiurlionis literary poem “Psalm” could serve as an example of the symmetry in his literary compositions. The place of repetitively used words “Lord”, “forest”, “field”, “river” within the text are not accidental. The sequence of these words construct a form based on an exact mirror reflection. However, perhaps the most striking finding is that the literal “Psalm”, painted cycle “The Sparks” and musical variations “Easacas”, all created in the same year 1906, are identical expressions of the same structural form – the mirror symmetry.

CONCLUSIONS

As Dalia and Judith Cohen wrote: *All music has some sort of symmetry, which can be regarded as a specific case of symmetry in human life and natural phenomena* (Cohen 1999, p. 122). The symmetry found in Čiurlionis’ works show us that Čiurlionis was consciously searching for realisation of all forms of symmetry in all his creative work. While the rotational symmetry, especially in combination with different forms of automorphism, is found more often in Čiurlionis’ piano music, the mirror symmetry is more often discovered in paintings and literary works. His strive to find a universal structure common to all artistic expressions is unique to this day. Efforts to combine different artistic media within the one type of symmetry is most obvious in creative process of Čiurlionis and is one of the most valuable result in the art history of the beginning of 20th century.

References

- Bruhn, Siglind (1992) Symmetry and irreversibility in the musical language(s) of the twentieth century, *Symmetry: Culture and Science*, 3, No. 2, 187-200.
- Bruhn, Siglind (1996) Symmetry and dissymmetry in Paul Hindemith's *Ludus Tonalis*, *Symmetry: Culture and Science*, 7, No. 2, 116-132.
- Cohen, Dalia and Cohen, Judith (1999) Symmetry in music: A historical perspective, *Symmetry: Culture and Science*, 10, Nos. 1-2, 89-126.
- Čiurlionienė-Kymantaitė, Sofija (1910) *Lietuvoje*, Vilnius: Zavadskis.
- Eberlein, Dorothee (1994) *Čiurlionis, Skrjabin und osteuropäische Symbolismus: Vom Klang der Bilder*, Stuttgart: Prestel Verlag, 340-345.
- Holm-Hudson, Kevin and Kučinskas, Darius (2004) Plane isometries in the music of M. K. Čiurlionis, In: Parncutt, R., Kessler, A., and Zimmer, F., eds., *Proceedings of the Conference on Interdisciplinary Musicology (CIM04)*. [Conference organized by Department of Musicology, University of Graz, 15-18 April, 2004; <http://gewi.uni-graz.at/~cim04>, found at 09.09.2004].
- Lendvai, Ernő (1993) *Symmetries of Music*, Kecskemét: Kodály Institute.
- Loeb, Arthur L. (1999). Symmetry in music as a stylistic index for the transition from the Middle Ages to the Renaissance, *Symmetry: Culture and Science*, 10, Nos. 1-2, 49-68.
- Solomon, Larry Joseph (2002) *Symmetry as a Compositional Determinant* [Ph.D. Dissertation], West Virginia University, found on internet at <http://wc.pima.edu/~lsolomon/diss.htm> (09.09.2004)
- Washburn, Dorothy K. and Crowe, Donald W. (1988) *Symmetries of Culture: Theory and Practice of Plane Pattern Analysis*, Seattle: University of Washington Press.