

## Binary Principle as a Way of the Actualization of Lithuanianness in Music

**Abstract.** The binary principle of composing emancipates the composer from direct quoting of ethnic melodies and keep up the Lithuanianness of music on the basis of concept and root. The author illustrates the statements in the article by examples from his own works focusing on the peculiarities that condition the formation of the binary core in composition. In his opinion, those peculiarities can be discovered with the help of the composers' trained ear and intuition.

**Keywords:** binary form, binary core, opposing musical units, types of ear attitude (sonant, tonal, identifying, dynamic).

### Introduction

The binary principle of composing is one that employs opposing. The origins of this principle may be drawn back to the centuries of early paganism. For instance, Lithuanian polyphonic songs (*sutartinės*), according to different sources, go back to the Stone Age (Slaviūnas 1971: 3). Likewise, other archaic music is also noted for its binary formation. As my former research revealed, various sound forms – third bichords, fourth trichords and tetrachords – can be polarised on the principle of parity. Several polarised units can sound simultaneously as in Lithuanian *sutartinės*, or form the opposing ornaments of the monody line (Janeliauskas 2001<sup>1</sup>, 2002: 2). The heritage of Lithuanian ethnic music with its rich combinatorial patterns of forms, in my strong belief, is a deeply traditional and necessary basis for the authenticity and originality of Lithuanian music.

In modern times the principles of binary composing were actualized by several eminent composers in the first half of the 20th century. These principles were systematically expanded by the composers such as Bartók (Hungary), Stravinsky (Russia), Ives (USA) and others (Janeliauskas 2001<sup>2</sup>). Lithuanian composer Mikalojus K. Čiurlionis left unique examples of binary designed music (Janeliauskas 2010). However, further search for Lithuanianness in music has developed by implementing images discovered in romantic music, for instance, the quotation of ethnic intonations (Ambrazas 1981).

In the article, attention is drawn to the profound means of opposing in ethnic music formation, and it substantiates the reason to base oneself on them in search for Lithuanianness in music.

### On binary form, types of ear attitude and Lithuanianness in music

The key question is what is needed to create binary based music to be identified as contemporary Lithuanian and national music. The answer seems to be obvious: deep knowledge of the binary principle and the intuition of the trained ear. However, that is not all. The composer's wish or self-directedness to render Lithuanianness in his music is also of great importance, which is a spiritual effort, without which moving towards Lithuanianness will not be successful. Here I resort to the auto-reflection of composing music by myself.

The first thing I turn to before starting a new composition is the Lithuanian *sutartinės* and monodies<sup>3</sup>. For me, they are the most beautiful things. Therefore, I choose something from our ethnic heritage. When the chosen ethnic object is in front of me, I try to recall all I know about the binary principle and to realise how the chosen *sutartinė* or monody could be developed in a contemporary way. As a result of such concentration the intuition of the ear is finally activated. The material chosen from the ethnic heritage largely determines the first step to take and stipulates the type of ear attitude to be manifested – sonant or tonal, dynamic or identifying. It often helps to start – the rest will follow.

The rational aspect of composing drives me to make music interesting for a contemporary musician or the surrounding cultural environment (“longing for Sirius”, “engagement with inter cosmic surroundings” is not acceptable in my point of view; is not the native country enough?).

Having in mind the potential of the binary principle that lies in ethnic music, the melodic motifs and lines may have to be greatly reduced, sometimes also supplemented or modified. The binary formation of rhythmic dimension also should be taken into account. As the essential condition while making such reductions and supplements stands the eligibility of identifying them as of ethnic origin because, the identifiability of the elements is purposive in this approach.

<sup>1</sup> See: Janeliauskas, Rimantas (2001). Binarics as a Common Means of Composing.

<sup>2</sup> See: Janeliauskas, Rimantas (2001). Echoes of the Archaic Binary Sounding in the 20th Century Music.

<sup>3</sup> See the collection of Lithuanian folk songs set up by Čiurlionytė (1999).

We can see that rational way of working with the material can never suffice without the intuition of the ear (Janeliauskas 2003). We started with identifiability, which is the most important thing. It will always remain as such, although music will be composed while employing other types of aural attitude as prevailing.

Often the aims of the identifiability are limited to approaches that prefer the quotation of an ethnic object, however, it should not coincide with it. It is necessary to introduce a trace of modernity, even though a barely noticeable one. The actualization of the binary form starts with the first moment of composition, because it can happen that there is not the second one (it is likely that intuition will eliminate the next as impossible to be programmed). The other goal of the limitation mentioned above will coincide with the approach which could be described “as far as”, where Lithuanianness will not be heard. Therefore, the elements of modification, with the help of intuition, are as though introduced into a certain measure of identifiability that is determined by the desirable goal.

### Formation of the binary core

The most elementary exemplar of binary core could be based on the interval of second.

The friction of second alludes to the Lithuanian *sutartinė* and is easily recognisable (Ex. 1). The higher component of the binary structure is expressed by an octave implementing a rising leap (C5-C6), while the lower one is featured by a gesture of falling down (B4-B3, m. 4). The rhythmic ostinato pattern in an upper voice is gradually muffled by increasingly multiplying triplets (see m. 2–3). Finally, rhythmic ostinato is moved to a lower unit (m. 4). This antiphonic replacement of the initial rhythmic pattern between the parts of upper and lower units of the binary structure is an indicator of the formation of a binary core. Here it should be noted that the initial repetition of rhythm in the opposing unit was teleologically directed by multiplying triplets. The growing progression of triplets creates dynamic tension of expectation, which leads to the replacement of rhythmic patterns between the polarised parts.

Example 1. *Gintarėlis* No. 7 by Rimantas Janeliauskas

While forming a binary core, the friction of second can be enriched by opposing units of thirds. The formation of such units can be also identified in Lithuanian *sutartinės* and monodies. In the next example (see Ex. 2) an upper unit is formed by D-F, while the lower one is C-A. The pitches of a particular unit may appear in various registers and act as a factor of making them more dynamic. Pitch C may be substituted by chromatic variants such as C# or D $\flat$ , depending on the direction of a movement. The first phase of a binary core encompasses four measures, while the second (m. 5–8) is antiphonic repetition of the first, supplementing it with the addition of two measures (m. 9–10). Further on, both phases sound homo-rhythmically at the same time (from m. 11). This can be considered as the end of the completeness of the binary core. Its motif appears when the oppositions are made even on the basis of parity. In the first phase the upper unit was more prevalent (the lower unit was paused for two measures), while in the antiphonic phase the lower one prevailed. Additional two measures run even the figuration of sixteenth notes in the lower phase on the basis of parity (exploiting repetition on various registers), repeating it antiphonically in the upper one, understandably, in the opposite direction (m. 10). Creating the opposing meanings and functions on the basis of parity, the decisive role is played by the dynamic attitude of the ear, discovering the intensity generated by higher frequency of rhythm. It is the latter that drives the teleological tension of expectation towards the homo-rhythmic summarising of both units. Dynamic tension is also important for a particular phase of forming a binary core. Here a subtle play of thirds appears, which are increasingly multiplied as, for instance, F-D (m. 1); F-D-F (m. 2); F-D-F-D-F (m. 3). In this way, the repetition of sixteenth notes is provoked in the opposing unit (m. 4).

Forming a binary core (based on the friction of second as mentioned before) it is also common to operate units realized by the chains of thirds (see Ex. 3). Here the upper unit of a binary structure forms a chain of thirds made from E-G-B $\flat$ -D $\flat$  (C#) (here E $\flat$  is used as a chromatic substitution for E and thus should be treated as the

**Impulsyvus rubato** ♩ = 88

Example 2. *Gintarėlis* No. 19 by Rimantas Janeliauskas

same pitch). A lower unit forms a chain made from (D)-A-F-D. The intersections of chains made from thirds are well known in Lithuanian *sutartinės*, especially in instrumental ones, therefore, they are easily recognisable. The balance between the movement directions of every unit here becomes an indicator of forming a binary core. The upper chain of thirds, which is repeated twice, manifests in the rising direction (m. 1–2). Later it suddenly turns to the down falling direction (m. 3–4), a pattern repeated twice as well. Therefore, the rising pattern ends up in a wide leap upwards (E4–E<sub>b</sub>5), while the fall is performed by the same notes downwards. In this way, the upper unit opposes itself in respect of the direction of pitch. The polarized lower unit that joins a process a little bit later acts in the opposite way in respect to the directions. It takes up the down falling direction the first three times (see arpeggio of a passage, m. 1–3), then rising up twice (m. 4–5). These movements balance the expression of units on a parity basis creating the expectation for further continuation. It should be noted that two repetitions of the same direction are spontaneous both in the sense of recognisability and dynamics. The third repetition needs exceptional conditions. The lower unit, as we have noticed, is repeated three times downwards. So what is this exceptional condition? It is the change of direction in the upper unit, which is the most distracting moment that allows the “incorporation” of the third repetition.

Example 3. *Gintarėlis* No. 14 by Rimantas Janeliauskas

The rhythmic modelling of separate units also should be noted. The upper unit is based on ostinato of eights' movement, while the lower one contrasts regarding the rhythmic values (very short values are seen at the beginning, continued by a longer one). These rhythmic models are constantly repeated, which helps to easily perceive the change of the dynamics with respect to directions and to feel the tension of expectation it creates.

The binary core can be formed not only by one strike of second, but including more of them (Ex. 4). Here two strikes of second (C-D $\flat$  and F-E) can be constantly heard. The origin of seconds is based on a fourth trichord with an upper or lower minor second, namely F-E-C or F-D $\flat$ -C. Trichords like these are common and are easily recognisable in Lithuanian monodies and *sutartinės*.

Example 4. *Gintarėlis* No. 16 by Rimantas Janeliauskas

The intersections of different seconds' strikes make it possible to orient oneself between opposing units. One could be represented by the third D $\flat$ -F, the other by C-E. Strikes of seconds are caused by notes that appear attaching an interval of fourth, i.e. C (in an upper unit) or F (in a lower unit). The teleology of a dynamic binary core is based on one of seconds' strikes made more frequent in respect to another. For instance, in the first measure each of the higher and lower strikes are realized only once, it could be expressed by ratio 1 (high) : 1 (low); later the ratio becomes 2 (high) : 1 (low) (m. 2); later on – 3 (high) : 1 (low) (m. 3). The progression of a higher unit is opposed to a reverse ratio, i.e. 1 (low) : 2 (high) (m. 4); later it returns to 2 (low) : 1 (high) (m. 5). The return to the former ratio regarding the strikes of seconds is to be considered a sign of the formation of a binary core.

In the process of the binary formation the bass pedal takes part as well (m. 2–3, F $\sharp$ ), which paves the way for the next stage of expansion. The pedal will turn into a cluster (m. 6–8) opposing the strikes of seconds on a higher level.

A binary core can be formed by opposing units, based not only on fourth but also on fifth trichords. The latter are also widespread in Lithuanian ethnic music (Ex. 5). Here we see the fifth trichord (D $\flat$ -E $\flat$ -A $\flat$ ) in the upper unit and the fifth trichord (F-C-B) in the lower one. The coexistence of both units creates a repeated friction between the notes of major and minor seconds (F-E $\flat$  and E-E $\flat$ ). The friction is obtained by employing the overdue system of rhythm. The higher unit is leading in the rhythm of eights, while the lower one overdues in sixteenth value. Later, the replacement of overdue between the units appears (m. 2). Now the lower leads, while an upper unit follows. Before that the voices of opposing units have extended from strike of second to the edges as far as seventh (F-E $\flat$ , E-E $\flat$ ) and further on. After the replacement of units, opposing voices come closer and move to the centre (E-E $\flat$ , and so on). So this overdue pattern begins to differ in different voices, i.e. starts to move away and reach higher registers (E4-E $\flat$ 5 and E4-E $\flat$ 6). The return of opposing voices marks the end of the binary core, after which a development stage starts (m. 3).

The dynamic attitude of the ear optimally uses the advantages of the overdue rhythm pattern shifting notes of both units and teleologically directs the process towards the climax both in the first phrase (m. 1) and in the second one (m. 2). The subtlety of the second phrase is an expression of the lowest dynamic level with the close texture of the voices, after which there is a return to the model of differ voices in order to reach the climax. The return of the primary texture is also prepared by the return of the overdue system (second, fourth triplet in the part of the left hand part) but it only lasts for an instance. After the emergence of the fourth triplet there is a return to the of the beginning of a measure (m. 2). This subtle detail that was discovered by the aural intuition is another illustration that the formal scheme is not sufficient as a stand-alone basis of composition.

Example 5. *Gintarėlis* No. 25 by Rimantas Janeliauskas

The units of a binary core can be opposed to the strike of second that oversteps the fifth (unlike fifth trichords, where the interval of second manifests inside the fifth). Second that crosses over the fifth can be understood as a potential representative of the opposing unit encompassing fifth. The intonation composed of fifth + second (from below or above) can be found in Lithuanian instrumental *sutartinės* and in monodies, therefore it helps to identify it as a trait of national music (Ex. 6, see G-A-E and E-A-B).

Example 6. *Gintarėlis* No. 21 by Rimantas Janeliauskas

The structure of rhythm is based on augmenting and decreasing progressions of sixteenths' groups (3-4-5-6-5-4-3, m. 1-2). When this progression is repeated its oppositional unit is transposed (m. 3-4). Now they start with groups of decreasing progression, followed by the process of augmenting (6-5-4-3-4-5-6, m. 3-4). In Lithuanian monodies augmenting or decreasing sequences of rhythmic motifs are sometimes seen. Therefore, this construction by its nature is acceptable for the aim of national music.

The parity (every unit is repeated twice) of rhythmic oppositions (augmenting and decreasing) completes the formation of the binary core. However, it seems that rhythmic constructions alone would not be enough. The dynamic profile of units formed by fifths is of great importance. It becomes noticeable thanks to the pedal tones in the bass (octaves of G, A) and in the upper part (octaves of B, C#). Pedal units are kept by seconds in high register (A-B). After pedal replacement, structures close to seconds are seen below (A, A-B, A-B-C#).

The slide of pedal tones moves in upward direction (G-A-B-C#). As it is known from ethnic archetypes, similar slides functions as oppositional, or ousting each other. Therefore, every following tone of the pedal slide that follows after ousting belongs to the initial unit. Then there is the return of the units by way of register replacement: the lower unit in low register (G1-2) exchanges places with the upper unit in high register (B4-5). Respectively, oppositional replacing pedal returns (i.e. bass A1-2 and C#5-6). Consequently, the replacement of ousting within the initial low pedal returns in a high register. These replacements (low, high) synchronize with rhythmic oppositions. Essentially, it is a case of syncretism of sound and rhythmic structures, which is discovered thanks to the dynamic intuition.

The influence of dynamic intuition is best revealed summing up groups of sixteenths that depend upon opposing units, namely, on B and on A, which most often move in the opposite direction (second half of m. 3, like m. 4). Here dynamic tension is increasing, which completes the formation of the binary core. The most

essential factor of dynamic tension is the rise of pitch positions (m. 1, 2). Later besides pedal tone replacements as we have mentioned, summing up of opposing rhythm figures appears. The latter is supplemented with additional details of texture like sixteenths' ostinato breaks in pauses (m. 4). The dynamic factors mentioned above prepare a further stage of development.

The examples of the binary core that have been analyzed until now were created orienting oneself to the trend of the tonal approach. The binary core can also be created relying upon sonant intuition (Janeliauskas 2014; Ex. 7).

Example 7. *Gintarėlis* No. 22 by Rimantas Janeliauskas

Here, the units are polarized by replacing the registers which stand out as the structures of seconds. In the low register the major second is seen (G-F), while in the upper it is the minor one (A-B $\flat$ ; incidentally, manifesting together with sonorous expansion, up to sound G). The opposing units are repeated antiphonally three times. While repeating the lower sonorous structure of seconds it raises up by octave each time (by one octave in m. 2, by two octaves in m. 3). Besides, the rhythm of a lower unit is intensified. In its turn, an upper sonorous unit is extended after repeating it three times (only the initial part of the unit of is exposed, m. 4). This slight break of regular antiphonal repetition provokes the replacement of opposing units, after which the lower unit appears in upper register. Besides, this replacement marks the crossing of the dynamic and register profile between the two sonorous units. The lower unit that starts silently (*mp*) in the lowest register of the piano, is repeated louder and louder each time while octaves are getting higher and reach the climax in the third octave. In its turn the upper unit is dynamized in an opposite way – starting high and loud, it gradually becomes more silent. The register aspect of this unit looks a little bit differently. Here the high second abruptly falls down with its each new manifestation (as far as minor seventh); therefore, dynamic tendency is completed not by lowering the register anymore but by strengthening B $\flat$ -A in a low position by a long rhythmic value (half and a dot). This rhythmic extension is unequivocally linked to the extension of the third repetition in an upper unit and associates with the fourth interrupted repetition or rather, its end. The completion of the register profile with a long rhythmic value essentially changes the process of dynamic units. Now the units do not oppose each other, but both form an intensive summed up sonorous field (B $\flat$ -A-G-(F $\sharp$ )-F, m. 4). Here we can see both rising and falling directions of movements between different registers, as well as loud and short rhythmic values. This summarizing sonorous result is the most essential indicator of the formation of the binary core.

Here, it is reasonable to add that the tonal and sonant attitudes of the ear impart certain controversial features to binary composing, the most essential of which are the qualities of expressions regarding the opposing units. Following the tonal attitude of the ear, third bichords are opposed by tones removed at a second. In the meantime, the sonant hearing first of all draws attention to the sonant potential of second. Then other opposing representatives of units are discovered. Now the distancing of registers manifests oppositions of units.

## Conclusions

The conducted analysis of music composing allows us to claim that the Lithuanian binary musical heritage is a potential source of the renewal of nationality and Lithuanianness in contemporary music. Orienting towards the essential attitudes of the ear it is possible to discover and support the following attributes of Lithuanianness of music:

- 1) Ethnic-binary music roots;
- 2) Identifiability of national music sounding;
- 3) Suggestiveness of musical dynamic profile;
- 4) Modern design of tonal and sonant approaches of composing.

Undoubtedly, those composers who orient themselves towards the authenticity of Lithuanianness acquire a great chance to open and show their individuality.

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## Binarika kaip būdas aktualizuoti tautiškumo paieškas lietuvių muzikoje

### Santrauka

Binarika vadiname muzikos komponavimo principą, operuojantį opozicijomis. Šio komponavimo būdo ištakos siekia ankstyvus pagonybės šimtmečius. Antai lietuvių sutartinės, spėjama, siekia akmens amžių. Panašiai ir kita archajinė etnomuzika dažnai pasižymi binarine skambesio lyčių daryba. Paritetiniu principu gali būti poliariamos įvairios skambesio lytys – terciniai bichordai, kvartiniai trichordai ir tetrachordai. Tokios lytys gali skambėti vienalaikiškai (panašiai kaip sutartinėse) arba sudaryti opozicinius monodinės linijos ornamentus. Lietuvių etnomuzikos paveldas su visa savo turtinga binarinių lyčių darybos ir kaitos kombinatorika yra giliai tradiciškas ir nepamainomas šiuolaikinės lietuvių muzikos autentiškumo ir originalumo pamatas. Moderniais laikais binariniai muzikos komponavimo principai aktualizavosi XX a. pirmojoje pusėje. Ypač sistemiškai šiuos principus plėtojo vengrų kompozitorius B. Bartókas, rusų – I. Stravinskis, amerikiečių – Ch. Ivesas ir kt.

Unikalių binarinės muzikos darybos pavyzdžių paliko genialus lietuvių kompozitorius M. K. Čiurlionis. Po Čiurlionio lietuvių muzikos tautiškumo paieškos plėtojosi romantinėje muzikoje atrastais pavidalais, pavyzdžiui, etnointonacijų citavimu, perintonavimu ir pan.

Straipsnyje dėmesys koncentruojamas į giluminius, opozicinius lietuvių etnomuzikos darybos būdus, kuriais logiška remtis atnaujinant muzikos lietuviybės paieškas. Binariniai muzikos komponavimo principai išlaisvina kompozitorius nuo tiesioginio citavimo ir palaiko muzikos lietuviybę konceptuali, šakniniu pagrindu. Teiginius autorius iliustruoja savo kūrybos pavyzdžiais, koncentruodamasis į kūrinių binarinio branduolio suformavimo ypatybes. Pastarąsias tegalima atrasti tik atitinkamai išlaisvinus kompozitoriaus klausą ir jos intencijas.