The Aurora borealis harmony as structural design in Eduard Tubin’s ‘Northern Lights’ Piano Sonata No. 2

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Résumé de l’article

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The Estonian Eduard Tubin’s (1905-1982) second piano sonata, subtitled the “Northern Lights Sonata,” represents a significant turning point for the composer. Written between February and October in 1950, the sonata contains attributes that become hallmarks of Tubin’s mature style—namely, a highly concentrated compositional structure, an enriched, tonally ambiguous harmonic design, and the use of cyclically repeating theme groups. Tubin himself acknowledged the importance of the sonata as follows: “it [i.e., the work spent on the sonata] taught me a lesson for life. I learned to concentrate on the essentials and leave out everything else, all that was unnecessary, superfluous, and repetitive; each note had to find its right place.”¹

The composition is widely viewed as the most important twentieth-century piano sonata from Estonia; and the notoriously self-critical composer considered it among his best works from a large and varied œuvre.²

The subtitle of the composition comes from Tubin himself. Specifically, he noted that the work’s opening eight-note harmony represents the programmatic depiction of the whirling flashes from the northern lights (Rumessen 2003, 25). This “Northern Lights” Leitmotive appears in Example 1.

In this article, I trace the various transformations of the Aurora borealis harmony in the second piano sonata and identify its role as a vital structural element of the composition. Following a descriptive assessment of the work’s three movements, I end by identifying some fascinating relationships between the piano sonata and other works by Tubin from this time period.

Since Tubin’s work may not be immediately apparent to all readers, let me begin with a brief outline of the composer. Born in 1905, Tubin is broadly regarded as the foremost Estonian composer active between 1940 and 1980. Upon graduating from the Tartu Higher Music School in 1930, where he studied composition with Heino Eller, the leading Estonian composer from the first half of the twentieth century, Tubin worked at the Vanemuine Theatre in Tartu as an accompanist, choral, and symphony conductor. For the next fourteen years Tubin’s compositional stature grew through such important works as his first four symphonies, the Violin Concerto No. 1, Estonia’s first full-length ballet Kratt, as well as a number of folk-inspired compositions such as the 1938 Three Estonian Folk Dances for solo piano. Clearly the most significant event in Tubin’s life took place in September 1944, when the composer and his family, together with thousands of other Estonians, fled to Sweden to escape the Soviet occupation. In Stockholm he

¹ English translation of this quote is by Vardo Rumessen in Rumessen (2009, 25). Origin of this quote found in Connor (1978, 58).
² Rumessen 2003 contains a comprehensive description of Tubin’s varied œuvre—one which includes ten symphonies (an eleventh remained unfinished at his death), concertos, orchestral works, operas, choral music, chamber music, and piano works.
found employment as a copyist for the famous historical Drottningholm Royal Court Theatre, where he restored old operas and ballets, as well as compiled piano scores of these works. Tubin also conducted the Stockholm Estonian Male Choir, an ensemble for which he wrote many of his important choral works during the last thirty year of his life—compositions such as Shepherd’s Sunday from 1957 and his 1950 Requiem for Fallen Soldiers.

Although Tubin’s œuvre is broad, and contains important works in all genres, including the two unjustly underperformed operas (Barbara von Tisenhusen from 1968 and the 1971 The Parson of Reigi), it is his cycle of ten symphonies for which he is most celebrated. Central to his compositional style is the comprehensive development of a circumscribed number of small motives to formulate innovative large-scale formal designs—a compositional aesthetic that demonstrates the influence of Beethoven and Sibelius, two composers who Tubin held in the highest esteem throughout his life. However, more contemporary influences, with respect to harmony and rhythm, include composers such as Bartók, Scriabin, and Stravinsky.

One final attribute of the composer’s work is the influence from Estonian folk elements, a recurring characteristic found throughout the composer’s career, and can be witnessed in a variety of forms—whether it is the mythological legends from Estonian folklore, as used in Kratt, the folk tunes that served as the melodic material in such works as the Suite on Estonian Shepherd Melodies from 1959, or actual folk-inspired poetry used as texts in his choral pieces and songs.

Despite the burgeoning number of recordings and scholarly interest in Tubin’s music, one analytical challenge has been the topic of sonata form in this repertoire. A valuable methodology to study these works is the theory of sonata deformation—scholarship that has expanded the analytical options of sonata form construction beyond the traditional Formenlehre designs typically employed to describe eighteenth- and, in particular, nineteenth-century large-scale compositions. The origins of this research stem from an important series of writings by James Hepokoski that appeared during the 1990s.

He has proposed that beginning in the late-eighteenth century an array of “deformations” of Formenlehre structures came into existence that challenged the conventional expectations of sonata form. Hepokoski further argues that the various sonata innovations in the nineteenth and twentieth century can be attributed to the diverse and more extensive reflections upon these deformations.

Hepokoski’s writings have consolidated the vast variety of deformations into essentially five categories. Unfortunately, space delimits discussion of his fascinating theory to a single category, one that has particular relevance with Tubin’s music—namely, rotational form. Before moving on to the more formal discussion of Tubin’s piano sonata, it would be valuable to briefly identify the terminology to be employed as well as some features of rotational form itself.

Hepokoski’s rotational form accounts for a sonata-designed movement that cycles through the same thematic material several times, usually, but not necessarily, in the same order. He writes that:

Strictly considered, a rotational structure is more of a process than an architectural formula. In such a process … [one] initially presents a relatively straightforward ‘referential statement’ of contrasting ideas. This is a series of differentiated figures, motives, themes, and so on … which may be arranged to suggest anything from a compound theme to the structure of a sonata exposition. The referential statement may either cadence or recycle back through a transition to a second broad rotation. Second (and any subsequent) rotations normally rework all or most of the referential statement’s material, which is now elastically treated. Portions may be omitted, merely alluded to, compressed, or, contrarily, expanded or even ‘stopped’ and reworked ‘developmentally.’

New material may also be added or generated. Each subsequent rotation may be heard as an intensified, meditative reflection on the material of the referential statement (Hepokoski 1993, 25).

In short, it would not be inappropriate to consider rotational form as a loose type of strophic variation—although, to reiterate Hepokoski’s point in the above quote, this is a description more of a process than a Formenlehre design.

I have written elsewhere about the utility of Hepokoski’s model of rotational form to explicate the fascinating sonata designs in a number of Tubin’s symphonies (Jurkowski 2007). Using this model as a modus operandi, then, it would be pertinent to study the first movement’s unusual design, one that has been the source of much debate among scholars.

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5 For a thorough study of Tubin’s style and compositional influences, see Pärtlas (1995).
4 For instance, the record label BIS has recorded virtually all of Tubin’s orchestral, chamber and piano music; another cycle of Tubin’s symphonies appears on the label Alba; and Tubin’s two operas have been recorded on Ondine. The International Eduard Tubin Society, with financial support from both the Estonian and Swedish governments, is working on the Eduard Tubin Collected Works edition, a project that will encompass thirty-three volumes (at present, nine volumes have been published). Finally, Rumessen (2003) is an invaluable resource for scholarly study.
5 In particular, see: Hepokoski (1992a), (1992b) and (1993). Appendix 2 from Hepokoski and Darcy (2006) contains a useful summary of these writings.
6 For two divergent views of the movement’s form, see Connor (1978) and Rumessen (1988).
Movement One: Agitato e rubato

As noted above, the stimulus for this composition was a rare occurrence of the Aurora borealis in Stockholm during the autumn of 1949. As Tubin described it, “The whole sky was in motion. Everything around me flashed and whirled, [and I felt that] all of nature was before me” (Rumessen 2009, 25).  

Example 1 displays two elements within the opening twelve measures: the first is the Northern Lights Leitmotive, which serves as the accompanimental figure for the main theme proper. Examples 2a and 2b illustrate the two components in isolation. An important structural feature of the Northern Lights Leitmotive is interval-class 5, i.e., the intervals of a perfect fourth or perfect fifth. For instance, the interval is represented by the melodic ascent from G₅ to D₆. Note as well that interval-class 5 plays a prominent role as a structural feature of the harmony. As we see in Example 2c, interval-class 5 also plays a major constructive feature of the main theme proper—first as the boundary around the axis point of C-sharp₅; and the intervallic distance between G-sharp₅ in m. 15 and ultimate goal of the theme, C-sharp₆.

Example 2a: Harmonic progression of “Northern Lights,” Leitmotive, mm. 1-22

Example 2b: Main Theme of Eduard Tubin, Piano Sonata No. 2, Mov. 1, mm. 1-22

Example 2c: Structural role of Interval-class 5 in the main theme of Tubin, Piano Sonata No. 2, mov. 1

Table 1 identifies the major thematic areas of the movement.

<table>
<thead>
<tr>
<th>Rotation</th>
<th>mm. 1-88</th>
<th>Rotation</th>
<th>mm. 89-177</th>
<th>Rotation</th>
<th>mm. 178-184</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main Theme</td>
<td>Trans. 150-159</td>
<td>Close (α)</td>
<td>Main Theme</td>
<td>Coda</td>
</tr>
<tr>
<td>2</td>
<td>assoc. with Northern Lights</td>
<td>mm. 116-123</td>
<td>mm. 132-139</td>
<td>mm. 189-194</td>
<td>Melodic fragments of thematic material, interspersed with short fragments of Northern Lights</td>
</tr>
<tr>
<td>3</td>
<td>mm. 124-131</td>
<td>mm. 150-159</td>
<td>mm. 184-189</td>
<td>mm. 194-194</td>
<td></td>
</tr>
</tbody>
</table>

Coda

Of note are the various reiterations of the Northern Lights Leitmotive that are associated in some way with the main theme. For instance, unlike the simultaneous arrangement of the two elements, as presented at the outset of the first rotation, during the closing section the Northern Lights Leitmotive acts as a type of connective tissue between statements of the main theme, now transposed at the interval of a fifth (compared with its appearance at the opening) and harmonized. Example 3 illustrates a portion of this passage.

Example 3: Eduard Tubin, Piano Sonata No. 2, mm. 47-53

The movement contains three rotations. The referential first rotation can be conceptualized as a sonata exposition, albeit with a brief transition and, as was just noted, a closing section that reuses main theme material in conjunction with the Northern Lights Leitmotive.

Apart from the transition material in mm. 89-115, the organization of the second rotation essentially reverses the ordering of thematic material from the opening, referential rotation. Further, the main theme remains closely associated with the Northern Lights Leitmotive. One noteworthy feature is the subtle increase in surface rhythm throughout the rotation, culminating with the energetic section in mm. 150-171, one which utilizes main theme material in

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7 The original quote is found in Connor 1978, 58.
a dazzling imitative passage, as preparation for the third rotation.

An imaginative reordering of the thematic elements from the referential rotation underscores the highly compressed rotation three. For instance, the rotation commences with an impressive, sonorous statement of the main theme, but supported harmonically by the transition. The moment is significant: it is the sole point in the movement where the main theme is conspicuously dissociated from the Northern Lights Leitmotive. Or consider that the subordinate theme in mm. 190-194 is integrated with section (c) from the closing section. Perhaps as compensation for rotation three’s absence of the Northern Lights Leitmotive, the short, subdued coda contains melodic fragments of all the components from rotation one, interjected with statements of the Leitmotive.

Movement Two: Variations on Lapp Tunes

The second movement is a theme and variations design. The theme, seen in Example 4, consists of two tunes; each is based on a different Estonian Lapland tune (the respective folk tune sources are shown in Example 5a and 5b). The use of Lapland folk music might initially seem at odds with the underlying thematic focus of the piece—or at least of the first movement—i.e., the northern lights. However, Vardo Rumessen suggests a possible connection between Estonia’s folk epic The Son of Kalev and the role these two tunes in this movement might serve within the context of the overall structure. For instance, in Cantos 16 (the entire epic contains twenty cantos), he writes that “the Aurora borealis is related to a mystical idea of a place where the earth and the sky merge, in search of which the son of Kalev reached the coast of Lapland where he met the Lapp wizard Varrak, who was to show him the way to the end of the world” (Rumessen 1988, 20-21).

Example 4: Eduard Tubin, Piano Sonata No. 2, mov. 2, mm. 1-13

Table 2 outlines the design of the movement’s theme and three variations. There is an affecting arch to the movement’s outline: specifically, each successive variation increases in rhythmic complexity as well as the virtuosic demands upon the pianist. And the latter two variations are nearly twice as long as the theme or first variation (in fact, even though the third variation contains the same number of measures as the second, it is substantially longer in duration due to the extensive, cadenza-like passages that occupy individual

| Table 2: Formal design of Tubin, Piano Sonata No. 2, mov. 2 |
|---------------------------------|---------------------------------|---------------------------------|
| Theme                           | Tune no. 1                      | Tune no. 2                      |
| mm. 1-13                        | mm. 1-14                        | mm. 8-13                        |
| Variation 1                     | Tune no. 1                      | Tune no. 2                      |
| mm. 13-26                       | mm. 13-20                       | mm. 21-26                       |
| Variation 2                     | Tune no. 1                      | Tune no. 2                      |
| mm. 27-50                       | mm. 27-45                       | mm. 44-59 associated with NL Leit.|
| Variation 3                     | Tune no. 1                      | Tune no. 2                      |
| mm. 51-73                       | mm. 51-62 associated with NL Leit.| mm. 62-73 associated with NL Leit.|
| Coda                            |                                |                                |
| mm. 74-78                       |                                |                                |

Example 5a: Folksong source for Tune No. 1 of the Theme from Tubin, Piano Sonata No. 2, mov. 2

Example 5b: Folksong source for Tune No. 2 of the Theme from Tubin, Piano Sonata No. 2, mov. 2

(from: Tiren, Die lapplische Volksmusik, 1942)

Tubin’s interest in Estonian folk song was a creative influence throughout his career—and especially following his exile in Sweden beginning in 1944. One particular rich source of these tunes is the Swedish ethnomusicologist Karl Tiren’s 1942 collection entitled Die lapplische Volksmusik. Rumessen notes that Tubin not only knew this collection well, but also drew from it in a number of his compositions, including the two tunes in the present movement (Rumessen 1988, 21). Tiren describes the first tune as “a luring song of sylvan goddesses ... it evokes a hidden, but passionate yearning”; the second folk tune is “a love song intended to be sung by a Lapp maiden” (Rumessen 1988, 21).

Put in this context, it is not at all unreasonable to propose that the Aurora borealis held a powerful influence upon the composer beyond the flashing of lights in the Stockholm night sky. Rather, one can intuit a deep-seated emotional relationship between the physical experiences of the northern lights in Tubin’s adopted home and that of the spiritual longing he felt for his true homeland from which the composer remained in exile.

Table 2 outlines the design of the movement’s theme and three variations. There is an affecting arch to the movement’s outline: specifically, each successive variation increases in rhythmic complexity as well as the virtuosic demands upon the pianist. And the latter two variations are nearly twice as long as the theme or first variation (in fact, even though the third variation contains the same number of measures as the second, it is substantially longer in duration due to the extensive, cadenza-like passages that occupy individual
measures). However, there is a significant reduction in terms of rhythmic activity, dynamic level, and overall complexity of piano writing within the middle portion of the third variation; the dramatic alteration ushers the movement to a calm and subdued conclusion.

As a type of idée fixe, two variants of the Northern Lights Leitmotive appear as the movement reaches its most complex and thrilling portion. The first appearance is in mm. 44-50, and is associated with the second love song tune in Variation II. The relationship of the Leitmotive’s subtle emergence with the overt and harmonically rich Lapp love song melody can be programatically interpreted as a distant remembrance of Tubin’s beloved homeland for which he so yearned while in exile during this time. The second appearance is in mm. 51-58, and is correlated with the first tune in Variation III. This second statement of the Leitmotive is particularly impressive: a variant of the tune is interjected by virtuosic, cadenza-like passages, providing a musical response to the passionate longing among the spirits mentioned above, leading to the composition’s most stunning musical realization of the swirling lights from the Aurora borealis that so moved Tubin in 1949.

**Movement Three: Allegro**

Like movement two, Lapland folk elements also play a vital role in the third movement. Specifically, the ubiquitous ostinato figures are programmatic representations of Lapp drums engaged in a shaman ritual (Rumessen 2009, 25). And like the first, the movement contains a sonata design. The main theme, seen in Example 6, is essentially a decorated triadic figure in which interval-class 5 features prominently; by contrast, the subordinate theme emphasizes interval-class 1.

Table 3 outlines the design of the movement. In essence, there is no development: rather, mm. 47-65 contain a diversionary, dance-like section that bears rhythmic similarities with the subordinate theme. A brief transitional passage segues to the second rotation beginning in m. 70. Here, the main theme is expanded to twenty-eight measures, largely through the canonic entries of the theme. The extensive development of the subordinate theme, with respect to rhythmic activity, dynamic level and harmonic texture builds to a dizzying level of energy and excitement, and segues to the thrilling interpolation (and final appearance) at a double forte dynamic level of the Northern Lights Leitmotive in mm. 111-114. By directly associating the Leitmotive with the culminating passage underscoring the Shaman drum rhythms, Tubin links a musical symbol from his physical adopted homeland with that of the spiritual world of Estonia for a final time. An ecstatic coda highlighting the violent nature of the Shaman rhythms brings the movement to an electrifying conclusion.

**Example 6**: Eduard Tubin, Piano Sonata No. 2, mov. 3, mm. 1-16

![Example 6](image)

**Table 3**: Formal design of Tubin, Piano Sonata No. 2, mov. 3

<table>
<thead>
<tr>
<th>Rotation 1</th>
<th>Main Theme</th>
<th>Trans.</th>
<th>Sub. Theme</th>
<th>Close</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 1-88</td>
<td>mm. 1-16</td>
<td>mm. 16-29</td>
<td>mm. 29-38</td>
<td>mm. 39-46</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interpolation</th>
<th>Dance-like material with rhythmic association with Sub. Theme</th>
<th>(Trans. to Rotation 2, mm. 70-90)</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 47-65</td>
<td></td>
<td>Coda</td>
</tr>
</tbody>
</table>

**Conclusion**

As we have seen, Tubin’s so-called Northern Lights Leitmotive plays a crucial role in the dramatic narrative of his second piano sonata. For instance, its various transformations correspond with structural positions in the fascinating design of the first movement. And in the second and third movements, the Leitmotive appears at critical moments within each movement’s respective dramaturgy: the Leitmotive appears during the climatic central portion of the second movement; and it is a significant element during the energetic interpolative passage between the subordinate theme and coda in the final movement. And although there is no extant evidence that Tubin generated a programmatic narrative to correspond with the design of each movement, I have proposed that the Leitmotive represents more than an
element of musical syntax; rather, there are extra-musical motivations for its use—largely as musical metaphors for Estonian folk influences. In short, the subtitle of the sonata goes far beyond the musical presence of the Aurora Borealis’ swirling lights appearing at the outset of the piece; rather, the magnitude of the Leitmotive is felt throughout the work.

Despite the attention the second sonata has received by performers and scholars, a fascinating, yet un-researched area of Tubin scholarship is the role the “Northern Lights” Leitmotive plays beyond Tubin’s second piano sonata.8

For instance, it is prominently used in the design of two important compositions dating from the same period—the 1949 Violin Sonata No. 2, and the sixth symphony from 1954 (Rumessen 1988, 21).9 Specifically, the Leitmotive appears as harmonic support in the transition and closing sections of both the exposition and recapitulation from the first movement of the violin sonata. In the sixth symphony, the Leitmotive is notably used at two points in the work. In the first instance, it serves as harmonic support for the subordinate theme from the sonata-designed first movement (the Leitmotive appears in both in the exposition and recapitulation). Second, the Leitmotive is expansively employed as the primary thematic material for the main theme from the outer portions of the ternary-designed second movement. In sum, although the violin sonata and symphony do not contain programmatic titles, the comparable integration of harmony with compositional design, as found in the second piano sonata, suggest that this Leitmotive plays more than a superficial or coincidental role in associating these three works together.

In this article, I have examined how Tubin’s response to an external physical event—i.e., the appearance of the Aurora borealis in 1949—became manifested not just with a particular harmonic sonority, the so-called Northern Lights Leitmotive, but for someone who was passionately engaged with Estonian folk music and folklore in general, it also served as a musical metaphor for Tubin’s native country. Following his forced exile in Sweden, one can only speculate upon the anxiety Tubin must have felt being disengaged from a country in which folk music had played such an important inspirational resource right from the outset of his career. Given the number of compositions between 1949 (the earliest) and 1959 (the last) that utilize the Northern Lights Leitmotive to some degree, it is not at all unreasonable to suggest that Tubin’s conscious reference to this sonority would have been used with some programmatic intent, in ways analogous to what we have witnessed in the second piano sonata. Further study of not just these pieces, but also folk references they invoke will prove to be an important step forward to create a more comprehensive image of Tubin’s compositional style during this important decade—the period generally acknowledged as the beginning of his mature body of work.

REFERENCES


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8 A bibliography listing the various articles, reviews, and performances of the second sonata (as of 2003) can be found in Rumessen (2003, 176-179).

9 Rumessen notes that the Leitmotive appears in other works during the 1950s, albeit less comprehensively. The latest composition in which the Leitmotive plays a substantive role is a minor song from 1959, A Vision.