
The Austrian music theorist Heinrich Schenker is a blank page at the Danish academies of music, and one might wonder why his theory has never found its way into the existing study programmes. In connection with the project “Beethoven Reconstructed”, Thomas Solak has addressed the question of whether Schenkerian analysis can make a positive contribution to the analytical tradition of the academies. In this article, he attempts to paint a picture of the significance of Schenker’s organicist thinking and ideas to the analytical approach, and points to some aspects where analysis and performance may be able to enter into dialogue.

Schenker’s organicism as a contribution to the analytical tradition of the academies

Beethoven’s piano sonata op. 101 in A major

by Thomas Solak, Associate Professor of Music Theory

Over the past two years, I have had the opportunity to build up a more in-depth knowledge of what is known as Schenkerian analysis. I myself am trained in the analytical tradition that the academies have nurtured and continued, which includes such names as Finn Høffding, Poul Hamburger, Knud Jeppesen, Jørgen Jersild, Svend Westergaard, Yngve Tredre and others. The latter was my primary teacher back in the 1980s and early 1990s. However, it was only after the completion of my studies that I became aware of the theory of Heinrich Schenker (1868-1935), and ever since then I have wondered why I had not become acquainted with it earlier. Subsequently, in my own work at the Royal Danish Academy of Music, when I occasionally searched through the work of my predecessors to see whether Schenker had not just once put in an appearance, I found myself looking into a gaping hole. My puzzlement was compounded from the outset by the fact that this form of analysis is communicated through the so-called *graph*, which, since it uses a form of musical notation, appears to be immediately readable to musicians – so why should it not also be an obvious tool in the work of interpretation? There are undoubtedly many reasons for this, and today it is possible to find several qualified suggested explanations: In his thesis “Analytical Practices in Western Music Theory”¹, Thomas Jul Kirkegaard-Larsen deals with the history of the European reception for Schenker’s theory, and at the time of writing some of us are looking forward to the publication of Svend Hvidtfelt Nielsen’s monograph on the history of Danish music theory², where one will definitely be able to acquire an overall picture that also includes Schenkerian theory. In my own case, the opportunity to finally utilise the corpus of tools offered by Schenkerian analysis and its underlying philosophy was provided by the artistic development project “Beethoven Reconstructed”³, which aimed to explore how Schenkerian analysis could be applied in the context of interpretation and performance. Together with the pianist Emil Gryesten, and with Beethoven’s late piano sonatas as the focal point, I have attempted both to master these tools with relative confidence and learn how they can be applied in dialogue with the performer when translating analytical knowledge into sounding music. As is well known, Beethoven’s late piano sonatas are not the simplest object to select for such a study, and the choice also represents one of the project’s immediate deliberate “obstacles”. I will not here provide a description of the project as such, but immediately move on to the music that I have

selected to be the subject of this article, namely the first of the five late sonatas, and perhaps the most “peaceful” of them, the A major sonata op. 101 from 1816. Here we find the finest fruits of the evolution of music from around the turn of that century, and unlike several of the other sonatas, in this piece a sense of wholeness, balance and simplicity seems to flow from the piano. If we read Schenker himself⁴ (in connection with whom you must seek elsewhere for a more complete, educational introduction to his method of analysis⁵), an organicist perspective on art seems to provide the basis of his theory – i.e. a perspective that claims that a work is a whole, and that the work is more than just the sum of its parts. The whole and its parts are each other’s reciprocal prerequisites, and the parts can only be understood in relation to their function in the whole. The parts are created by a musical “material”, consisting of melodic, harmonic and rhythmic gestalts – just to clarify that there is nothing else, either more abstract or intangible, that ultimately constitutes the organism. We must therefore begin by taking all of the material seriously, and the analysis is thus initially based on understanding the relationship between the parts and the whole. In Schenker’s image, the organicist idea also contains a credo: that behind every good work of music there is a common material to which the parts refer. This applies on several different levels, as I will return to later.

Here I will first of all identify several points in the sonata which illustrate how organicism can be understood in a musical context. Firstly, on the melodic level:

In the first movement, the upper voice begins with a melodic, ascending line consisting of four consecutive notes, before the pattern is broken with a so-called tetrachord:

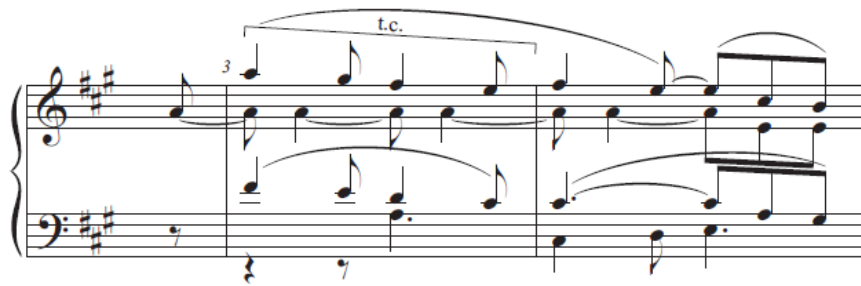
Ex. 1

Etwas lebhaft, und mit der innigsten Empfindung
Allegretto, ma non troppo

The image shows a musical score for the first movement of the A major sonata, op. 101. It consists of two staves: a treble clef staff for the upper voice and a bass clef staff for the lower voice. The key signature is two sharps (F# and C#), and the time signature is 6/8. The tempo/mood is indicated as 'Allegretto, ma non troppo'. The first bar of the upper voice contains an ascending line of four notes: D4, E4, F#4, and G4. The second bar of the upper voice contains a descending line of four notes: G4, F#4, E4, and D4, which is a tetrachord. The lower voice provides a harmonic accompaniment with notes in the bass clef.

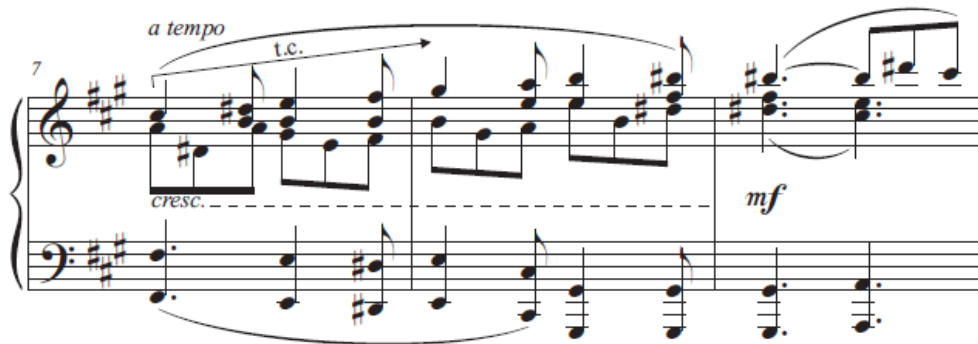
The second bar completes the phrase, but at the same time introduces its own issues, which I will also return to. There is nothing new as such in the tetrachord, which has been used countless times both before and since 1816. The interesting thing is how it is expressed in *this particular work* – how, as material, it helps to create the unity that can connect the parts and prolong the experience in time. The first development arrives as early as m. 3, where the idea is reversed, so that the line falls until it is broken:

Ex. 2



In the following, we will hear how the tetrachord is subject to both abbreviation and, in particular, prolongation, as here in m. 7-8,

Ex. 3



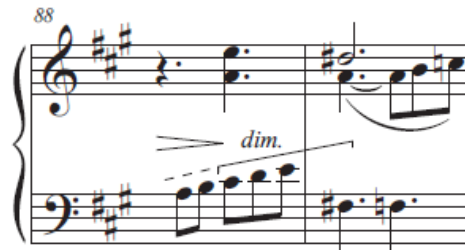
or a reworking in which the final note is altered and shifted an octave down, creating an enchanting epilogue motif:

Ex. 4



which in turn, initiated by a prolongation, provides coda material for the entire first movement:

Ex. 5

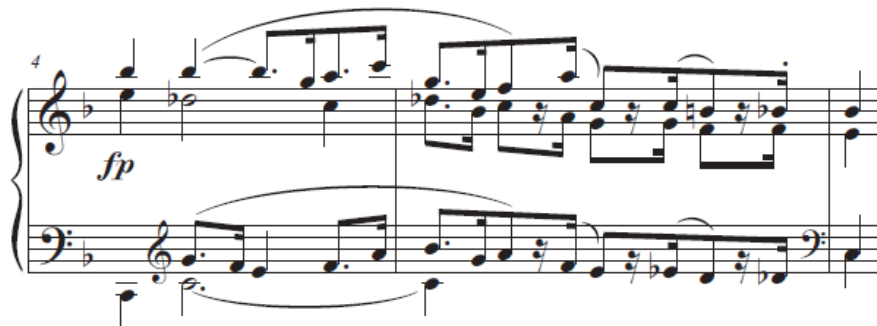


Much other material in the movement can be related on a detailed level to the tetrachord towards the conclusion, where it forms the rising line high up in the melodic voice, now from the fifth to the first melodic scale degree.

Here – as well as in many other places in the process of Schenkerian analysis – I have noticed how this approach and the “listening attitude” must have its origin in an older tradition that has properties in common with the one in which I was trained. It feels to a great extent quite secure and familiar to follow observations of the kind made by Schenker and his successors, of which I have shown some examples above. In extension of this, and with late Beethoven as the composer who provides the subject of our analysis, it is also unsurprising that the subsequent movements seem in part to further cultivate the same material. So, to approach a more structural level, let us examine how this unfolds:

In the second movement, which is a march – the change of character from the first movement is significant, with the now dotted rhythm – there is an iconic motto, not at the beginning, but as an after-phrase to it. It is this motif that holds the movement together in terms of form, by returning and bringing it back on track every time it is about to get out of hand:

Ex. 6



Note that what melodically bears the motif through is the tetrachord from the first movement, turned downward:

Ex. 7 (compare with ex. 6)

Musical score for Ex. 7, showing a piano piece. The score is in G major and 3/4 time. It consists of two staves: a treble clef staff and a bass clef staff. The treble staff begins with a measure marked '4' and contains a trill over a dotted quarter note, indicated by a bracket and 't.c.'. The dynamic marking *fp* is present. The bass staff contains a dotted quarter note followed by a half note, with a slur over the half note. The dynamic marking *pp* is present. The piece concludes with a final chord.

In addition to the dotted rhythm, the movement also introduces new features in other ways, including a more extensive degree of descending chromatics:

Ex. 8

Musical score for Ex. 8, showing a piano piece. The score is in G major and 3/4 time. It consists of two staves: a treble clef staff and a bass clef staff. The treble staff begins with a measure marked '7' and contains a series of eighth notes with a slur over them. The dynamic marking *cresc.* is present. The bass staff contains a series of eighth notes with a slur over them. The piece concludes with a first ending bracket and a first ending mark '1.'.

which actually stem from the beginning of the sonata, the tenor voice:

Ex. 9

Musical score for Ex. 9, showing a piano piece. The score is in G major and 3/4 time. It consists of two staves: a treble clef staff and a bass clef staff. The treble staff begins with a measure marked '7' and contains a series of eighth notes with a slur over them. The dynamic marking *cresc.* is present. The bass staff contains a series of eighth notes with a slur over them. The piece concludes with a first ending bracket and a first ending mark '1.'.

Or, as it is expressed in the bass line at the beginning of the march:

Ex. 10

Lebhaft. Marschmässig
Vivace alla Marcia

Note that this chromatic is simply a filling out of the F-C tetrachord. The trio of the march offers small new components, namely a neighbouring tone idea as the extended prelude to an entirely new melodic component, the upward leap of a sixth, which really places the spotlight on the D note. The tetrachord is still woven into the melodic expression, and the trio also introduces a canon principle as an extension of the imitational form, which increases throughout the march.

Ex. 11

The third movement, which perhaps barely counts as a movement, but is rather a contemplative moment before the finale, picks up some of the main features of the previous two movements in the course of this habitus:

Initially, the beginning of the melody is a minor transposed quote from the extended neighbouring tone idea (to a turn) of the trio, followed by the upward sixth leap:

Ex. 12

Langsam und sehnsuchtvoll
Adagio, ma non troppo, con affetto

Mit einer Saite
Sul una corda

However, the support in the bass is also interesting, as it is quite simply structured in the same way as the beginning of the melody in the first movement.

The next sentence introduces the contours of the fore-phrase from the second movement:

Ex. 13

Musical notation for Ex. 13, showing a piano accompaniment with a treble and bass clef. The music starts at measure 5. The treble clef contains chords and the bass clef contains a descending chromatic line.

This becomes clearer at an earlier stage if you wrap it in the melody of the march and, as an experiment, allow it to be followed by the after-phrase, the iconic motto:

Ex. 14 (compare with example 10)

Musical notation for Ex. 14, showing a piano accompaniment with a treble and bass clef. The music starts at measure 5. The bass clef features a prominent chromatically descending line.

Here, the chromatically descending line is again clearly heard in the bass – a principle that is then chordally expressed in a dreamlike free fall towards the conclusion:

Ex. 15

Musical notation for Ex. 15, showing two systems of piano accompaniment with treble and bass clefs. The first system starts at measure 12 and the second at measure 14. Both systems feature triplets and chromatic lines.

The conclusion, a little further ahead, could in terms of harmony lead directly to the beginning of the fourth movement, but Beethoven elaborates an interesting context for us in advance:

He now quotes the beginning of the sonata note for note, and in fact this is probably primarily justified in terms of harmony, which I will return to, but listening with the ears of melody as we are doing now, we are very educationally reminded of the tetrachord from the first movement, which, with exactly the same notes in retrograde position, provides the skeleton behind the fore-phrase of the main theme of the fourth movement, which follows shortly after:

Ex. 16

Zeitmaß des ersten Stückes
Tempo del primo pezzo: tutte il Cembalo, ma piano
Alle Saiten
p dolce

Geschwinde, doch nicht zu sehr, und mit Entschlossenheit
Allegro
f sf

This theme's melodic surface is, moreover, built up from tetrachords, now rhythmically diminished to 16ths. The secondary theme is based on the dotted rhythm, which thereby returns from the second movement:

Ex. 17

81
p dolce

The second time is exposed in a cadence containing the descending tetrachord:

Ex. 18



A final processing of the structure of the tetrachord must be mentioned: the sequenced rising position of the sixteenth figure of the main theme, as the epilogue of the main part:

Ex. 19

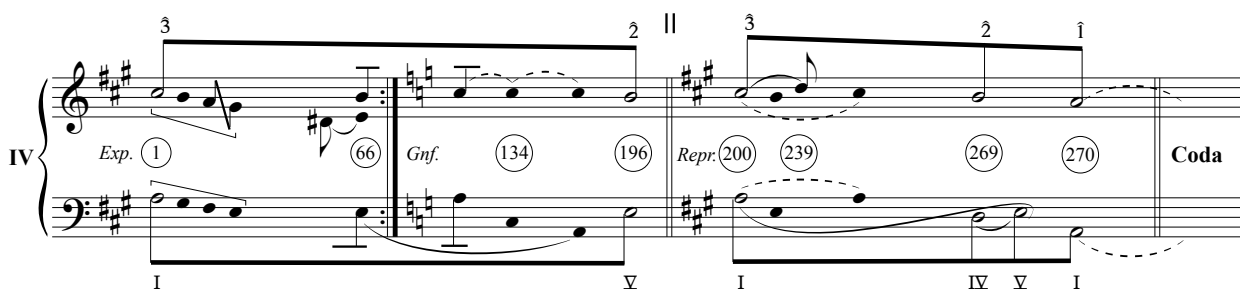


The development section in the fourth movement is a fugue – the ultimate sublimation of the imitation and canon principle from the second movement – which in its own special way gives expression to the main theme as a subject.

The above may serve as a description of part of the organicist nature of the work – at least if, like Schenker, we believe that the material and its relations are what constitutes the organism. In the analytical tradition of the academies, similar observations would be made at the outset. This also applies to the following, if we go one step further, because the motivic connections identify central places in the whole, which ultimately help to create the architecture of the overall form. For Schenker, however, this does not happen until the melodic aspect is supported harmonically, as I implied earlier. So let us now examine some of the characteristics of the work in that regard.

From the perspective of the single movement, as previously indicated, nothing particularly complicated is going on. Each movement has its own logical, harmonic structure: In Schenker's terminology, each movement has its own *Ursatz*, which contains the fundamental structure of the movement and the *Auskomponierung* (elaboration) of its key. As an example of this we could take the fourth movement, which could be interpreted as follows:

Ex. 20



The movement begins with melodic starting energy, the *Kopftön* (primary tone), around the third melodic scale degree (3̂) and works its way stepwise downwards – what Schenker calls the *Urfinie* (fundamental line). The ultimate goal for this line is the first melodic scale degree, which is reached only when there has been intermediate work (the subdominant in m. 269) and when the first bass step (I) supports it in m. 270. As is often the case with the sonata form, the fundamental line is broken, so that it runs not only 3̂-2̂-1̂, but is interrupted to allow the reprise to complete the work, i.e. 3̂-2̂ " 3̂-2̂-1̂ (where " represents the interruption). This is supported by the so-called *bass arpeggiation*, which is a journey from I to V, and which, through the intermediate work I just mentioned, then returns to I to support the first melodic scale degree, 1̂. The development is, in the broader picture, a kind of minor-shaded echo of the movement of the exposition (I will not attempt here to provide an introduction to either the analytical tools or the notation, but invite readers to seek this out for themselves (see endnote 5). Here I dare only to refer very generally to the graph above.) I am now close to what I said earlier, namely that Schenker goes a few steps further than traditional harmonic analysis. The organicist aphorism also means that what goes on at the detailed level can also play out on a more general level, and vice versa. The *Ursatz* or fundamental structure, which is the sum of the fundamental line and the bass arpeggiation, and which is indicated by the above graph, is already an example of this. If we play it (which is not really the intention), it sounds like a kind of extended cadence, which we could just as well have found somewhere in the here and now of the music. However, this "*Satz*" according to Schenker, constitutes the *background* of the music, which essentially is the deeper context, and can be perceived as such. What is really complicated in terms of understanding is that Schenker unequivocally states that in the process of creation, the background comes first. The *middle ground* (different layers between sentences and parts) and the *foreground* (the immediate, sounding surface of the music here and now) represent different degrees of elaboration of this background.

The other movements each have their own fundamental structure, which proceed roughly as one might expect. As mentioned, there is nothing very complicated going on here. In this context, I will therefore quickly move on to the cyclical aspects, i.e.: How do the movements interrelate as a single unit? Because, as we have seen, Beethoven's idea has clearly been that the sonata should not just consist of four different movements. There is continuous supporting material, and the division of the movements is most noticeable at character changes and in the initiating keys at the beginning of each of them. The promising aspect of this for a music theorist is that Schenkerian analysis claims to be capable of being applied, not just to whole movements, but also to cyclical sequences. So just imagine that the graph above is not only capable of conveying an analysis in the perspective of the movement, but also that more general parts of it could be included in it to explain the sonata as a whole – then there would really be something for performers to get their teeth into.

Before I address this cyclical perspective, I would like to return briefly to the problem I raised in connection with the completion of the introductory phrase from the first movement: The dominant seventh chord that bears the phrase allows the seventh to be so to speak "suspended in mid-air", without immediate resolution:

Ex. 21

Etwas lebhaft, und mit der innigsten Empfindung
Allegretto, ma non troppo

In the same octave, the expected C sharp is merely suggested in m.4, as it passes as an element of the local six-four suspension, and is not thus resolving in relation to the statement in m.1-2. The beginning of the next phrase, which is identical to the first, now dissolves the seventh, D, melodically, but harmoniously clad in a secondary cadence, and is otherwise without confirmation: We immediately notice that the music is already heading towards E major, the key of the second subject group.

Ex. 22

The image shows a musical score for Ex. 22, consisting of two staves: a treble clef staff (piano) and a bass clef staff (bass). The key signature is two sharps (F# and C#). The score is divided into two sections by a dashed line. The first section is marked 'Poco rit.' and the second 'a tempo'. The first section contains measures 5 through 8, and the second section contains measures 9 through 12. The piano part features a melodic line with a six-four suspension in measure 4. The bass part provides harmonic support with chords and a steady eighth-note accompaniment. Dynamics include 'cresc.' (crescendo) and 'mf' (mezzo-forte).

This key has been more than suggested from the beginning, where, for the reasons here mentioned, there is no clear sense of the main key. The question of when the seventh, D, in m.2 finally resolves remains, for me, unanswered until much later in the work.

From a Schenkerian perspective, too, the understatement of the main key at the beginning of the sonata is also significant for the understanding of the fundamental structure behind the first movement. The first part comes to lack a clear support for I (A major root position triad), and what comes closest is the situation in m. 4 (see ex. 21), where the melodic scale degree E is amplified by the neighbouring F sharp in the shape of an appoggiatura, supported by an A major sixth chord.

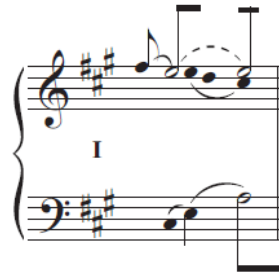
If you listen to the whole first movement on the basis of this weakly supported *Kopffon* $\hat{5}$, you will perceive the sound of E prolonged, so to speak, all the way through. Schenker lists three types of *Ursatz*: $\hat{3}-\hat{2}-\hat{1}$, as referred to above in connection with the fourth movement, as here $\hat{5}-\hat{4}-\hat{3}-\hat{2}-\hat{1}$, and finally the more theoretical $\hat{8}-\hat{7}-\hat{6}-\hat{5}-\hat{4}-\hat{3}-\hat{2}-\hat{1}$. The fundamental line, which in this perspective is expected to bring the energy of $\hat{5}$ (fifth melodic scale degree) incrementally downwards, exists only parenthetically, so that there is always a “coverage” that continues to imply E above it. This is emphasised as late as at the end of the first movement:

Ex. 23

The image shows a musical score for Ex. 23, consisting of two staves: a treble clef staff (piano) and a bass clef staff (bass). The key signature is two sharps (F# and C#). The score starts at measure 98. The piano part features a melodic line with a six-four suspension in measure 100. The bass part provides harmonic support with chords and a steady eighth-note accompaniment. Dynamics include 'ritar.' (ritardando), 'dan.' (ritardando), and 'p' (piano). The score ends with a fermata over a chord in the piano part.

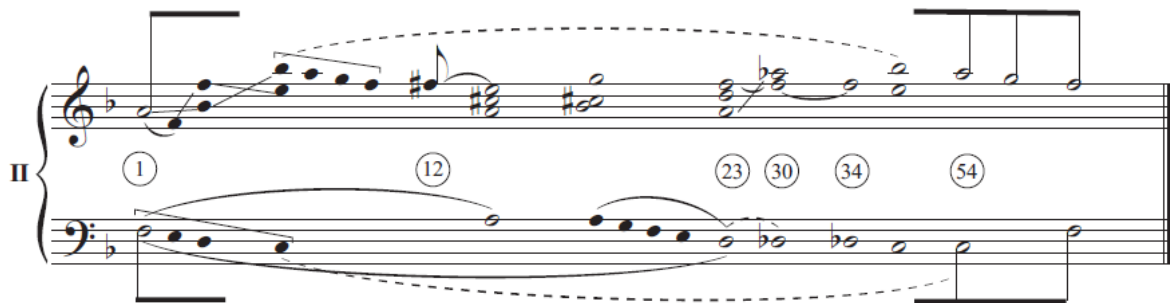
and leaves the listening experience open and alert. In the cyclical perspective, the first movement can therefore be expressed as something like:

Ex. 24



With the second movement, we move in terms of key from A major to the lower submediant, F major. Not long after the beginning, however, we once again find a flirtation with the main key (supporting E), but the overall trend is in the direction of the flat keys, and A major unsurprisingly leads to D minor in its continued progress:

Ex. 25



The alteration of A and D to A flat and D flat, respectively, leads back to the dominant function of F major, over which the motto, which we previously examined, returns. At movement level it is a $\hat{3}-\hat{2}-\hat{1}$ structure, but in the broader picture the elaboration of F major can be understood as a prolongation of the note F, which is neighbour to the $\hat{5}$ of the main key:

Ex. 26a



The trio now illuminates the “abandoned D” from the first movement, and supports it consonantly as $\hat{3}$ in the key of Bb major:

Ex. 26b

The entire second movement relates to the $\hat{5}$ of the cyclic *Ursatz*, partly as a neighbouring (i.e. in reality prolonging) note, and as support for $\hat{4}$.

Ex. 27

The third movement – or the interlude before the finale, if you like – is in motivic terms a summing up of three earlier ideas, and fulfils the same harmonic function, but as an echo in A minor (which we also find in the development part of the fourth movement). The concept of *prolongation*, which plays an important role in Schenker's universe, makes perfect sense here, where, overall, little other than a return to the *Kopftön* E occurs, which then reigns in two illuminations: A minor, and slightly later C major, which forms a mediantic counterpart to the earlier F major from the second movement, i.e. now *above* the main key of A major. The movement ends on the shared dominant chord for A minor and A major, but in a form corresponding to that which the main key assumed at the beginning of the sonata – here merely implied as the dominant, as the arpeggios insist on D sharp:

Ex. 28

Here it is difficult not to associate with the dissonant D from the beginning of the first movement, as it naturally returns when Beethoven quotes it, and even with the same vague or lacking resolution, after which it is immediately abandoned (see ex. 21). It is however resumed in the cadenza-like continuation, and is even accentuated with a

lengthened trill. However, it is in a teasing way chromatically led up to D sharp, as the trills continue, and we once again relate to the C sharp we are awaiting:

Ex. 29

The image shows a musical score for two staves, piano and violin. The piano part starts at measure 27. The violin part enters with a trill. Performance instructions include 'stringendo', 'Presto', and 'Allegro'. Dynamic markings include 'cresc.', 'f', and 'p'. The tempo instruction 'Geschwinde, doch nicht zu sehr, und mit Entschlossenheit' is written above the violin staff.

The effect is correspondingly large and double-sided when the fourth movement begins here, precisely with C sharp as *Kopftön*, which continues the global fundamental line to $\bar{3}$, i.e. the long-awaited resolution note, now fully supported by A major as root position triad. This technique ties a loop between the first and last movement, including everything in between, which enhances the uniform character of the material that I partly described earlier.

The overall background graph of the sonata, in this interpretation, could look as follows:

Ex. 30

The image shows a Schenkerian background graph for a musical passage. The top staff shows a melodic line with Roman numerals I, II, Trio, III, IV, and V. The bottom staff shows a bass line with Roman numerals I, int, V, and I. The graph is divided into measures by vertical dashed lines.

This can give support to work with the cyclical form in the interpretation, and ultimately the performance of the sonata, and although the purpose of this article is not to go into detail with the performance aspect, it was my starting point a long time ago that the Schenker graph could well be used for something like this. If there is something to this idea, we possess a tool here that can operate at all levels from the sounding foreground of music to the cyclical background of the work (to name them in the order that is most comprehensible for us).

Moreover, the more we move away from the foreground of the music, the more other traditions of harmonic analysis leave something to be desired, just as our traditional teaching in musical form primarily focuses on segmentation and designation, and has little to say about the process-oriented and cyclical aspects. Schenkerian analysis claims to be able to provide an understanding or interpretation of all the material facts that the common property of our analytical traditions can identify, regardless of the framework that we need to set: motif, phrase, sentence, form part, section, movement or cycle.

On the way there, however, there are a number of things that we must accept. In principle, we must accept the aphorisms concerning organicism and the *Ursatz* as a background. Along the way, one of the difficulties is to

understand how local harmonic phenomena, as described by the various tools of the graph, can coexist with a middle ground where the same tools also describe harmonic links over longer stretches, and finally that the background connections, which I have tried to exemplify above, also refer to the same harmonic logic. One must become accustomed to working in a continuum of levels of reduction (which perhaps is not entirely foreign to the reality of the performer). The understanding of voice leading techniques and their associated observations (various prolongation techniques) is, as suggested, not really far from the academy tradition, but it takes a lot of work and effort to become familiar with their use in the further process of producing a Schenker graph. Perhaps the most widespread objection I have heard from the fairly widespread group of sceptics is the question of whether this ‘rather difficult’ form of analysis is worth the effort. Heinrich Schenker himself in fact writes about this:

“[...] Thus my teaching, in contrast to more rapid methods, slows the tempo of the educational process. This not only leads the student to genuine knowledge, but also improves the morale of artistic activities in general. Surely it is time to put a stop to the teaching in music in condensed courses, as languages are taught for use in commerce.”⁶

It is not, of course, possible to prove whether Schenkerian theory is correct in its observations, but if we wish to discover whether it can create resonance with our own work as musicians, we must try to overcome these difficulties and, in the first instance, say *Yes* to it. It is my preliminary conviction that only then will it be possible to take up a final position, and perhaps the main result of the analysis is that a great many questions have been formulated during the preparation, which must be answered somewhere before any progress can be made in the interpretation and performance of the music. Music theory and analysis is the “why?” of the musician’s education, and Schenkerian analysis manages to ask a great many questions. The fact that it can be applied to larger sections, movements or cyclical processes, and thereby point out links in a larger perspective, strengthens the interaction with the musician’s ability to practise so-called *Fernhören*, i.e. to understand and experience connections that take place over larger periods of time; and that later, in performance, one can for example connect elements in terms of tone, dynamics and tempo that are separated by time and other material. And while for me this aspect has been both the most interesting and the unique aspect of the Schenkerian analysis, and, at the same time, the one that initially gave rise to the greatest scepticism, I believe that my efforts have so far borne fruit. The analytical work necessary to answer these questions has contributed to a different possible understanding of the A major sonata op. 101 as a whole – as an organism.

1 Thomas Jul Kirkegaard-Larsen: Analytical Practices in Western Music Theory, PhD dissertation, Aarhus University 2020.

2 Forthcoming publication from Multivers, Copenhagen.

3 Artistic development project, supported by the Danish Ministry of Culture’s artistic development pool, RDAM 2021-23.

4 Heinrich Schenker: *Der freie Satz*, 2nd ed., edited by Oswald Jonas, Universal Edition, Vienna 1956.

5 A good suggestion is Allen Cadwallader & David Gagné: *Analysis of Tonal Music – A Schenkerian Approach*, 3rd ed., Oxford University Press 2011.

6 Heinrich Schenker: *Free Composition (Der freie Satz)*, translated by Ernst Oster, Logman Inc., New York, 1979, preface.