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The Art, to Listen

(A Musical Analysis of the Composition
IN FRIENDSHIP)

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The Art, to Listen

This lecture was given extemporaneously (there were no lecture notes) at the *University of Mainz* on October 25, 1980. All of the examples were played by Suzanne Stephens (clarinet). A recording of the lecture was transcribed by Alexander Schwan.
A somewhat different version of the lecture was held on November 17, 1982, at the *Koninklijk Conservatorium Den Haag* (Netherlands) in English and transcribed by Michael Manion. This version, slightly edited, has been published in the book *Stockhausen in Den Haag* (initiative: Koninklijk Conservatorium; Frits Weiland, editor; published by Vonk / Uitgevers, Zeist, 1983).
The following text comprises the Mainz lecture supplemented by material from the lecture in Den Haag and by further commentary that was added as the text was being prepared for publication in Stockhausen's TEXTE zur MUSIK [TEXTS on MUSIC], vol. 5, pp. 669–698, *Stockhausen-Verlag*, 1989. The present translation was made by John McGuire in 1999 and edited by Suzanne Stephens in 2000. All of the musical examples are taken from the published score of IN FRIENDSHIP *for clarinet*.

Perception

The art, to listen is seldom practiced. Opportunities to hear a work of new music performed several times are increasingly rare and few people take the trouble to listen repeatedly to a recording of a new work until they really know it.

Our relationship to music has become highly superficial. Of course you know that for some time now there has been a general tendency for music to be used exclusively for entertainment and not to learn an art – for example the art, to listen.

In art music there has always been much more to hear than could be heard. It is part of the essence of art music that more happens in a work than can be consciously assimilated in the moment of listening. Notes may pass by so quickly that they can no longer be heard separately. Most people do not perceive individual notes exactly, but only approximately, because they have neither relative nor absolute pitch. Nonetheless these notes are exactly notated and played. Moreover, most listeners have no conception of the intervals between pitches and of differences of duration. They simply have no words for these things, and consequently have no way of consciously discerning melodies, rhythms, dynamic curves, series of colour changes and figures moving in space.

Since the perception of music is usually very superficial, many people think that hearing music exactly is a concern of specialists only. But that is certainly not true; music is for all of us, for everyone: all music.

There have been times when only a few people had access to musical performances and were thus in a position to train and cultivate the art, to listen. That – thank God – is different today. Anyone who so desires can attend concerts, listen to the radio, buy or borrow good records or visit a friend and say "I'd like to know what music you listen to"; he can acquire earphones and listen to music in the finest detail as often as he wishes.

For this reason it should be assumed that the art, to listen is in a process of continual development. It has to be practiced regularly if a deep understanding of music is to be attained.

The present-day vogue of wanting to explain everything, of using everything for pedagogical purposes, tends inevitably to encourage intellectuality in the perception of music. This does not mean that there are more people nowadays who are able to transcend intellectuality and perceive musical quality: the ability to recognize degrees of beauty, sublimity, originality and richness of thought and imagination in a work requires an additional and especially developed sensitivity that has to be constantly cultivated.

But at least through the enormous explosion in pedagogy the intellectual perception of music is more highly developed than ever before (especially in West Germany, where musical pedagogy is livelier than, for example, in France or Italy).

IN FRIENDSHIP

To illustrate how the art, to listen can be practiced I shall now describe the composition IN FRIENDSHIP *for clarinet* in detail. From its inception the work was intended to be performed on different instruments. I composed it on Sunday, the 24th of July, 1977, in Aix-en-Provence for the birthday of the clarinetist Suzanne Stephens. It was then premiered on July 28th at the beginning and again at the end of a private birthday party by two flutists – friends of Suzanne Stephens who had attended school with her and who in the summer of 1977 were studying with her at the *Centre Sirius* in Aix-en-Provence. Since then, whenever a talented musician has shown interest in performing IN FRIENDSHIP, I have worked with him or her for one or two days, transposed the piece for that particular instrument and made a few changes and additions.

In this sense the title does not only mean that the piece is dedicated to Suzanne Stephens in friendship, but also that many other friendships among musicians have developed through this music. It has always been one of my goals to compose something for the various instruments and voices that could be played or sung by all, that could serve as a basis for mutual evaluation and discussion.

I have written other pieces that can be played on any instrument. One of them is called SOLO. It is rarely performed because it requires special equipment. Another is called SPIRAL. I did not simply wish to write for a particular instrument, but very generally for a musician, so the same score could be played with completely different instruments. TIERKREIS for melody instrument or voice and/or chordal instrument is another piece that is so conceived.

IN FRIENDSHIP is a composition that is suitable for almost any orchestral instrument and can be used by musicians as a basis for discussions of structure and of musical and technical issues. In the meantime versions have been published for clarinet, flute, oboe, basset-horn or bass clarinet, violin, violoncello, bassoon, horn, trombone, saxophone and recorder, and since 1999 for trumpet and tuba.

Thus this composition is not associated with a specific instrument. It has a range of almost three octaves and can be played on any instrument that has this range (in the version for recorder I made adjustments so that the piece would fit the range of the instrument).

Formula

You will now encounter a few concepts that you would not necessarily think of as related to music but that are nonetheless very important.

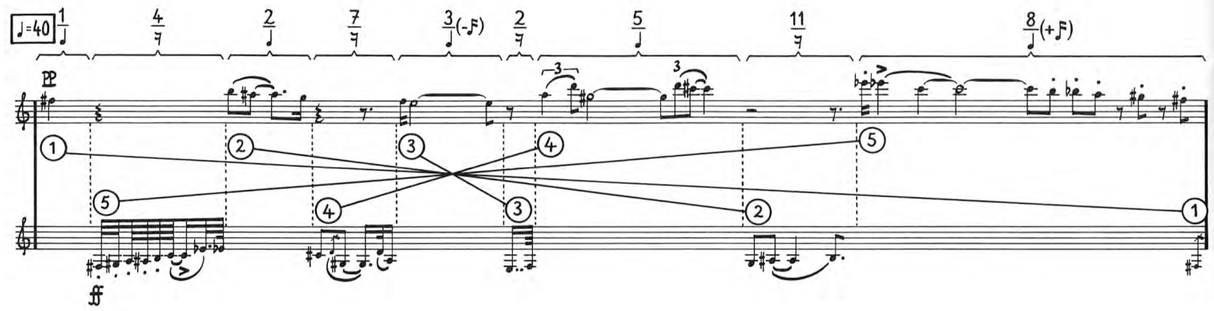
IN FRIENDSHIP was composed with a *formula*, which I wrote first. You are probably familiar with the idea of "*formula*" in mathematics or chemistry.

Since the composition of MANTRA in 1970 I use the idea of *formula* both in the sense of a mathematical *formula* from which a world of relationships can be deduced, as well as in the sense of a "magic *formula*" with which it is possible to evoke marvellous events.

What I call a *formula* has a very definite contour, a shape.

I have made a large drawing of the *formula* of IN FRIENDSHIP in colour (the original drawing is 3 meters long and 1.5 meters high).

Formula of IN FRIENDSHIP



An accidental ♯ or ♭ applies only to the note that it immediately precedes; ♮ are used only to aid legibility. (All pitches are identical to those in the published score of IN FRIENDSHIP *for clarinet in B-flat* and therefore sound a major second lower than written).

First let us look at the upper staff alone.

The upper layer of the *formula* consists of 5 "limbs" (whose function is analogous to that of the "limbs" of a body). Please look at the encircled numbers ① ② ③ ④ ⑤. You can see that the 5 limbs have different numbers of pitches:

The **1st limb** has only 1 pitch with the duration of $\frac{1}{4}$ note.

The **2nd limb** has 3 pitches, each with a different duration, namely $\frac{2}{16}$, $\frac{5}{16}$, $\frac{1}{16}$ (i.e. 2 : 5 : 1). In addition there is a further subdivision: two of the pitches are tied, and one is not tied, i.e. 2 + 1 = 3 pitches. Together these 3 pitches have a duration of $\frac{2}{4}$.

The **3rd limb** has 2 pitches: a short pitch with a duration of $\frac{1}{16}$ and a long pitch of $\frac{5}{8}$.

Together the duration is $\frac{11}{16}$ or $\frac{3}{4}$ minus $\frac{1}{16}$.

The **4th limb** has 5 pitches that are slurred to form groups of 2 + 1 + 2. The second pitch of this limb is repeated at the fourth position. In this way 4 different durations (2 + 1 + 7 [+ 1] + 4 triplet eighths) form the progression 1 : 2 : 4 : 7. The total duration of the 4th limb is $\frac{5}{4}$ notes.

The **5th limb** has 8 pitches of which the first two are identical: a strongly characteristic "head" followed by a chromatically descending line. The final interval, however, is a major second. The duration of the 5th limb is $\frac{1}{16} + \frac{8}{4}$ notes.

The **pitch groups** in the 5 limbs are thus 1 + 3 + 2 + 5 + 8.

The **durations of the limbs** are as follows: 1 : 2 : 3 (- $\frac{1}{16}$) : 5 : 8 (+ $\frac{1}{16}$).

The durations of the 5 limbs are separated by **rests** of varied lengths:
Between the 1st and 2nd limbs there is a rest of $\frac{4}{16}$,
between the 2nd and 3rd limbs there is a rest of $\frac{7}{16}$,
between the 3rd and 4th limbs there is a rest of $\frac{2}{16}$,
between the 4th and 5th limbs there is a rest of $\frac{11}{16}$.

For the *durations of the pauses* we thus have the series 4 – 7 – 2 – 11, a progression 2 : 4 : 7 : 11.

Pitch group progressions such as 1 – 2 – 3 – 5 – 8, *lengths of limbs* such as 1 – 2 – 3 – 5 – 8 and *lengths of pauses* such as 2 – 4 – 7 – 11 are advantageous for our perception.

Now I would like to describe the pitch **intervals**.

The **1st limb** has **one** pitch. The interval to the 2nd limb – across the rest – is an ascending fourth (+5 semitone steps).

The **2nd limb** with **3 pitches** has a descending tendency, i.e. from the first to the third pitch a major third (- 4): the descending minor second (- 1) and the descending minor third (- 3) establish the major third relation.

A descending major second (- 2) leads across the rest to the 3rd limb.

The **3rd limb** descends by a minor second (- 1), as at the beginning of the second limb.

An ascending fourth (+5) leads from the 3rd limb across the rest to the 4th limb, as between the 1st and 2nd limbs.

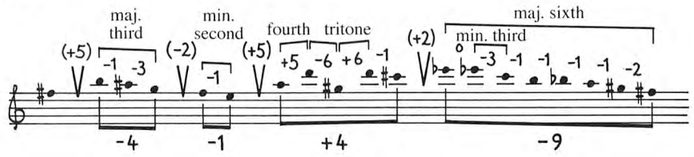
The **4th limb** has an ascending fourth (+5) followed by a descending and then ascending tritone which returns to the original pitch (- 6 + 6); the final interval is a descending minor second (- 1).

The direction of movement of the 4th limb is therefore climbing-falling-climbing-falling, within a tritone. A major second (+2) leads across the rest to the 5th limb.

The **5th limb** begins with a repetition (0) of the highest pitch of the *formula* (*staccato* followed by *legato*), which gives the limb a highly characteristic "head". This is followed by a descending minor third (- 3), which due to the dynamics, the long durations and the exposed high register forms a particularly striking interval throughout the piece.

This is followed by a descending sequence of four semitone intervals and one major second (- 1 - 1 - 1 - 1 - 2); thus the 5th limb has a total range of a major sixth.

Intervals

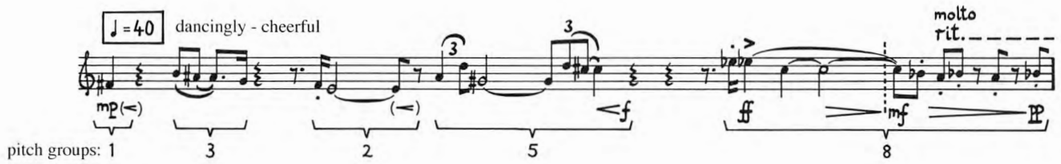


The descending minor second occurs in the 2nd, 3rd, 4th and 5th limbs; they all share the descending tendency. This is balanced by climbing three times across the rests from the 1st to the 2nd, 3rd to 4th and 4th to 5th limbs.

The limbs are characterized by different intervals: The 2nd limb by a major third, the 4th limb by a fourth and tritone, and the 5th limb by a minor third and major sixth. All told the following intervals have been used: 0 / -1 (seven times) / -2 (twice) / +2 / -3 (twice) / -4 / +4 / +5 (three times) / -6 / +6 / -9.

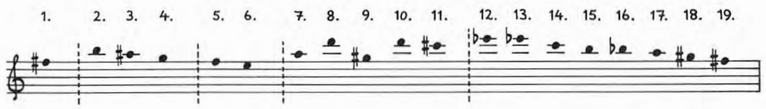
Introduction

This upper layer of the *formula* is stated at the beginning of the composition one octave lower than I have drawn it here. In addition only 5 of the 8 pitches in the 5th limb are used: a semitone step has been omitted and replaced by repetitions of the last two pitches so that the group again has 8 notes. The final interval, the descending minor second, now serves as the nucleus of a development that I will describe in a moment. First let us listen to the reduced *formula* as stated at the beginning of IN FRIENDSHIP.

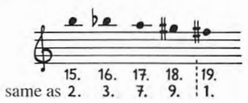


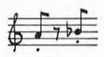
Together with the first two pitches of the 5th limb this melody contains all 12 chromatic pitches in one octave:

In the complete 19-pitch upper layer of the *formula*:



the 10th pitch repeats the 8th so that there can be a descending and an ascending tritone. The 13th pitch immediately repeats the 12th, marking this as the highest pitch. The final descending sequence of 5 pitches, extending beyond the 12-pitch melody, repeats pitches in the order in which they occur in the *formula*; the last pitch is identical to the first:



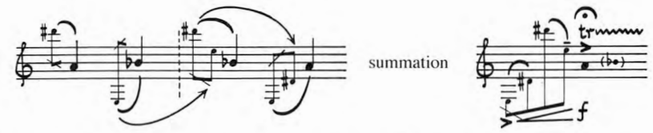
From the final minor second  of the *reduced formula* a trill is now formed by gradual acceleration: the time-intervals between the two pitches grow smaller until a separation can no longer be sensed and a continuous trill results which then decelerates, "dissolves". This trill will later become a **line of orientation** throughout the composition.

During the gradual acceleration a high and a low pitch are occasionally heard and increasingly often. These are the highest and lowest pitches in the piece. In this way the tonal space is demarcated as though with a frame.

Both pitches of the trill are exactly in the middle, between these frame pitches. Throughout the rest of the piece the intervals between this continuing middle line and all of the pitches above and below it are fairly easy to recognize.

As the trill increases in density during the acceleration, one pitch each is added to the upper and to the lower frame pitches. These two pitches are identical to their counterparts on the opposite sides of the trill, but in the same octaves as

the frame pitches. The interval thus formed is a major seventh, which is fairly difficult to hear at three octaves' distance. The doubling makes the interval between the frame pitches clearer:

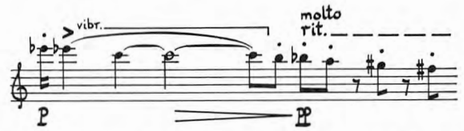


We will now hear the *reduced formula*, then the acceleration to the trill with interspersed highest and lowest pitches occurring more and more frequently, then the two-note appoggiaturas with the summation of the four grace notes into a group and finally the deceleration of the trill (beginning of IN FRIENDSHIP to the end of the 6th staff):

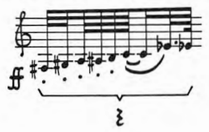
Three Layers of the Formula

This introduction is followed by the complete three-layered *formula*. The upper layer is gentle, melancholic: high, quiet, slow, *legato* and usually descending. The lower layer is forceful, energetic, optimistic: low, loud, fast, *staccato* and usually ascending. The two characters are opposites. We can begin to understand why the composition is called "IN FRIENDSHIP".

The upper layer, which we heard at the beginning, had rests between the 5 limbs. Now, I have filled out these rests with further limbs. I will next explain how they were formed. Please listen to the **5th limb**:



The characteristic features are the repetition of the first pitch and the chromatically descending motion. If I compress this limb such that it has the duration of the $\frac{4}{16}$ rest (𝄿) which follows the first limb – i.e. accelerate it by a factor of eight –, and in addition, play it backward (we musicians use the word "retrograde") and two octaves lower, it sounds like this:



So the same material that was high, quiet, slow and descending in the upper layer we now hear low, loud, very fast, ascending. Try closing your eyes and listen again to the 5th limb: [5th limb] as well as to its compressed retrograde form: [5th limb backward].

An art of listening is necessary in order to recognize something like this. Any signal you encounter in everyday life can be turned around in your imagination and sung backward (sung [1]):

 sounds backward  This is still quite simple.

With three pitches it is somewhat more difficult:  sounds backward  .

This "reversal" has to be practiced. As children we enjoyed saying words and whole sentences backward. When I was studying at the conservatory it was a kind of game to whistle a melody and then to whistle it backward. Not many of us could do that. We would challenge one another to whistle complex intervals and rhythms and listen to the response.

For this reason the limbs of the *formula* of IN FRIENDSHIP have very simple shapes.

In baroque music it was common practice to use retrograde forms of motifs and themes. Most people can recognize a person in a photograph even if the photo is laterally reversed, because you know what the person looks like.

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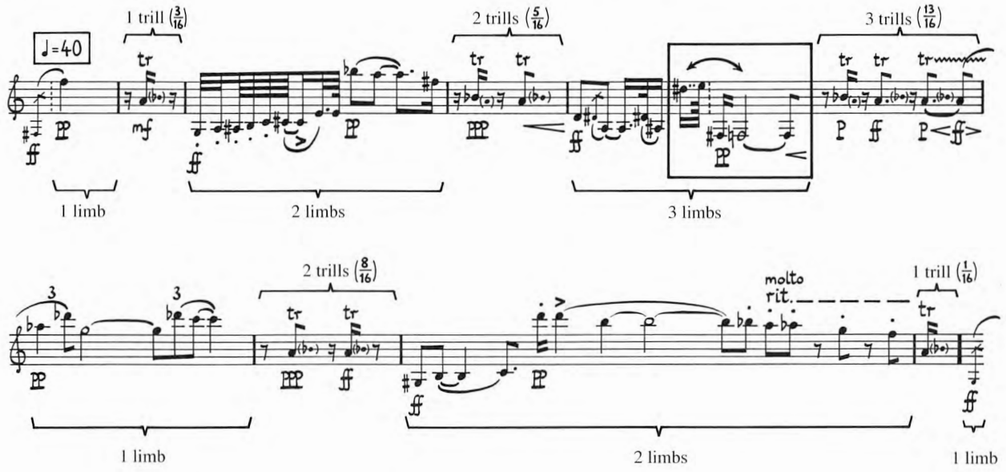
1 The examples I sing in bass have been notated here as in the edition for clarinet. In the lecture with examples played on a B-flat clarinet they are sung a major second **lower** than notated so that they sound the same as the B-flat clarinet.

In **cycle II** it sounds like this (notice also how in this case the limbs are grouped by the trills):



The grouping of the limbs 1 – 2 – 3 – 1 – 2 – 1 is different than in cycle I.

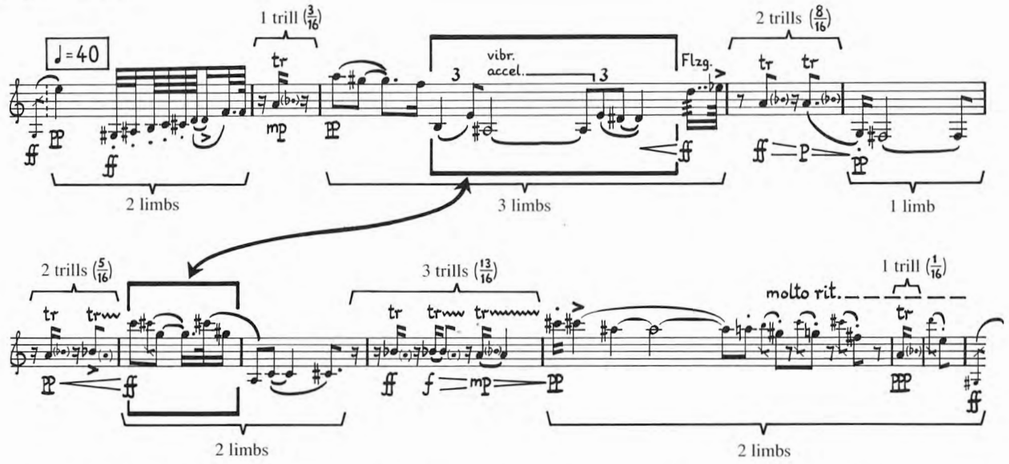
Furthermore, the **central** limbs of the two layers are **exchanged**: The 3rd limb of the lower layer appears as the 3rd limb of the upper layer while the 3rd limb of the upper layer appears as the 3rd limb of the lower layer (⟷); thus a short, fast, loud, ascending limb appears in the upper layer while a calm, soft, descending limb appears in the lower layer.

This exchange of limbs initiates a second process through which the contrasting layers become increasingly similar.

Limbs exchanged in this way are, as part of the process of chromatic convergence, transposed along with the other material according to the principle of chromatic convergence: whatever is exchanged upward will from then on be transposed down; whatever is exchanged downward will then be transposed up. During this process the 1st note of every exchanged limb is so placed as though that limb had been in that layer from the beginning.

The 3rd limb of the lower layer, which has now jumped into the upper layer, would have been in cycle I and in cycle II is therefore a semitone lower:  .

When you hear **cycle III** please observe the effect of the transposition, of the grouping of the trills and of the exchange of further limbs:

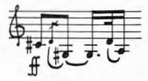
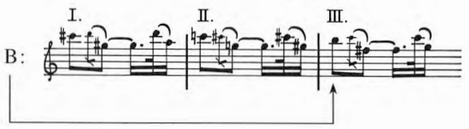


Again the grouping of the limbs is different: 2 – 3 – 1 – 2 – 2; the same applies to the grouping of the trills: 1 – 2 – 2 – 3 – 1.

The last trill has been inserted between the second-to-last and last note of the final limb; it comes too soon.

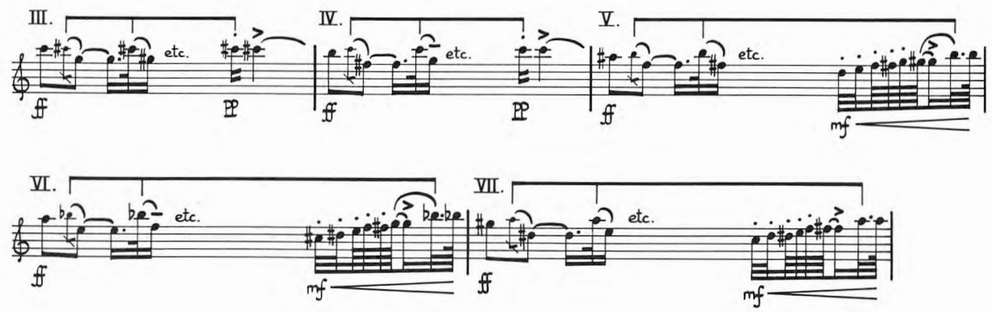
This time the 4th limb of the upper layer and the 2nd limb of the lower layer are exchanged (⟷).

At this point I should explain why, in the case of this particular exchange of limbs in cycle III, the transposition scheme is disrupted and the limb that moved to the upper layer has been placed a semitone higher than in the rest of the transposition sequence.

The corresponding limb of cycle I  – when moved to the upper layer in cycle III – should have started with B:  , if it had been in this layer from the beginning.

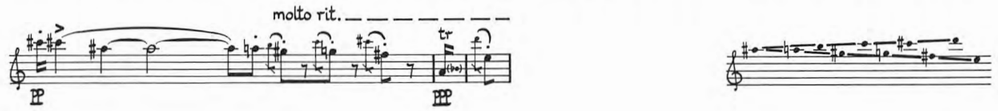
However, this transposition would have resulted in the following combination:  , which, because of the double octave, would not have been good.

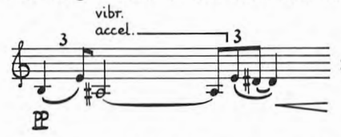
Moreover, starting with cycle III, I wanted to use the upper frame pitch (peak note) of the *formula* to render the transposition clearer:

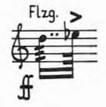


However, the decisive reason – despite all considerations of the semitone shift of this limb which starts in cycle III – will be explained only when I describe cycle VII.

A few other **irregularities** appear in the cycle III. In the final limb a series of grace notes has been added which mirrors the descending sequence. This is easily noticed because we are now hearing the *formula* for the 3rd time:

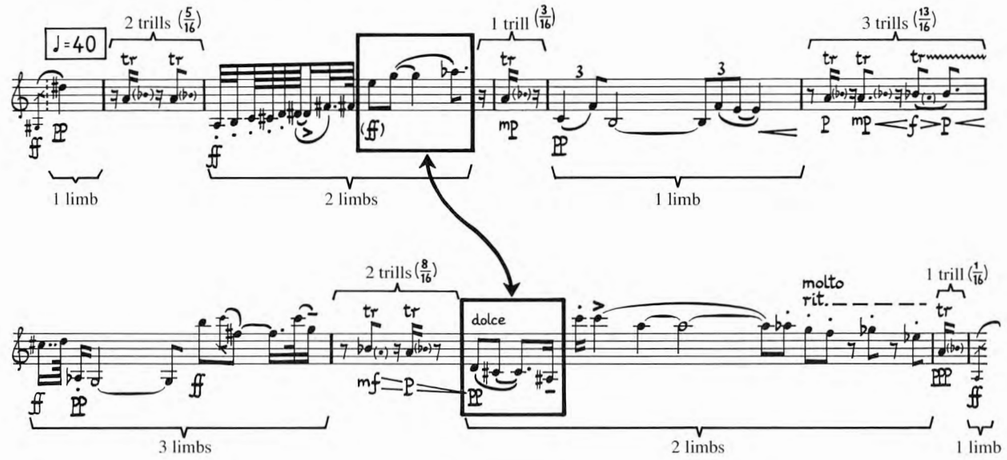


The longest note of the limb that has been moved to the lower layer is emphasized by an *accelerating vibrato*  ;

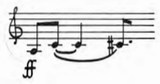
one note of the limb that was moved to the upper layer in cycle II is played flutter-tongue  .

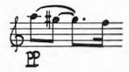
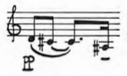
Quite frequently I use this "throwing light" on individual notes through unusual playing techniques for **vivification** after a limb has already been heard a few times.

The following **cycle IV** continues the processes of transposition, of grouping by means of trills, of limb exchange and of alteration of detail (page 6 of the score, 2nd system):

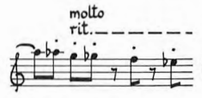
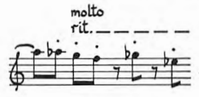


The grouping of the limbs is new: 1 – 2 – 1 – 3 – 2 – 1; likewise the grouping of the trills: 2 – 1 – 3 – 2 – 1.

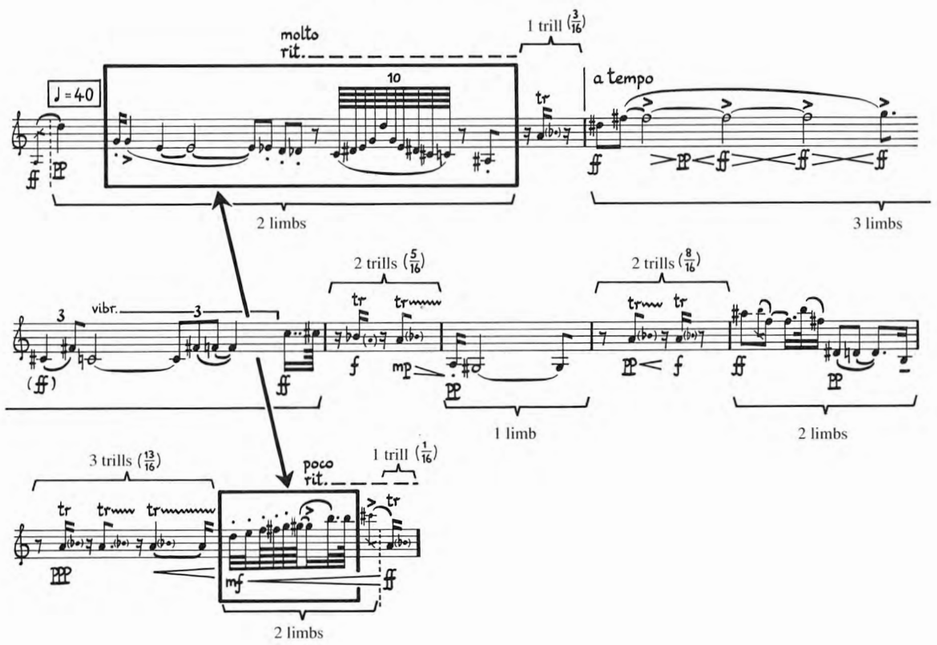
The 4th limb of the lower layer  appears at the second position in the upper layer 

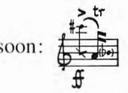
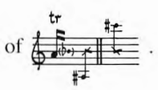
and as exchange, the 2nd limb of the upper layer  becomes the 4th limb of the lower layer  .

Again the descending sequence of the final limb is changed: two notes are exchanged. This can easily be heard:

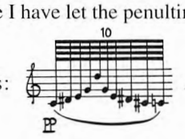
Instead of  it is now  .

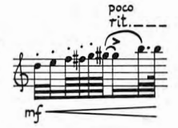
Because of its numerous irregularities, **cycle V** requires a very special attentiveness:



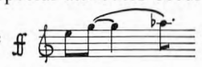
We heard the limb grouping 2 – 3 – 1 – 2 – 2; the final high grace note anticipates the transposition that is due in the following cycle; it also comes too soon:  instead of  .

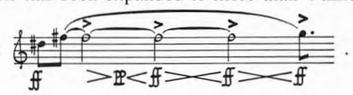
The trills are grouped 1 – 2 – 2 – 3 – 1.

The final, 5th limb of the upper layer has been moved to the first position in the lower layer, where its character – because of the low register – is even gentler and more melancholic. In the descending sequence I have let the penultimate note rapidly open and close; there is really no reason for this – it's just a flower for the ladies:  .

How much livelier, more optimistic and brilliant the 1st limb of the lower layer now sounds at the end of the upper layer, two octaves higher and with a *crescendo*:  .

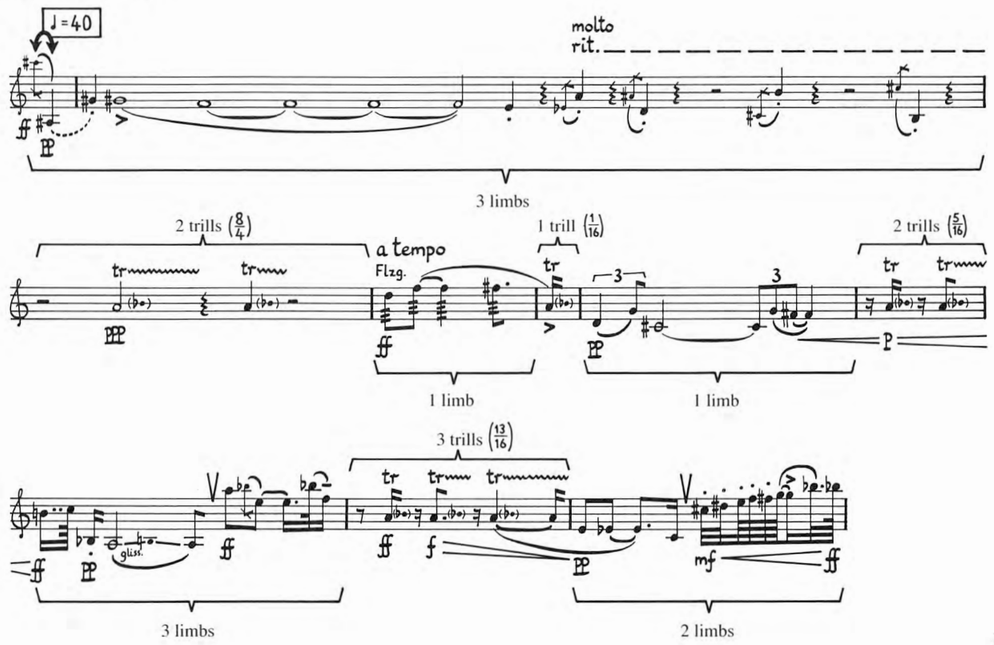
Depending on register, direction, tempo and dynamics the same limb can have a completely different emotional effect.

A few more special attributes occur in **cycle V**. The limb that was still played in its original form in the previous (fourth) cycle  is now "examined under a microscope" musically.

The second note of the limb has been expanded to more than 4 times its original length and has 3 *decrescendo-crescendo* waves as well as accents:  .

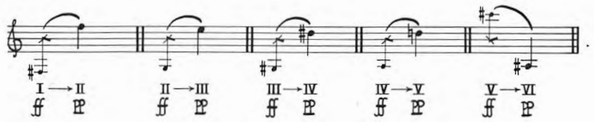
Moments like this can be found repeatedly in all of my works: moments in which I stop the structural flow and take one element – a note, a chord, a colour, a manner of playing etc. – put it under a magnifying glass, open, throw light on it, listen to its inner structure in depth. If I use a microphone in this procedure I call it "microphoning". I go into the particular; the sensual aspect of the sound takes over for a moment; time stands still.

Next comes **cycle VI**:



The grace note at the beginning of this cycle has until now always occurred at the end of each cycle. In this cycle – due to the exchange of first and last limbs – it occurs at the beginning of the *formula* and is moved to the upper register. For emphasis I also moved the grace note at the end of the preceding cycle to the upper register so that the high C-sharp is clearly heard twice.

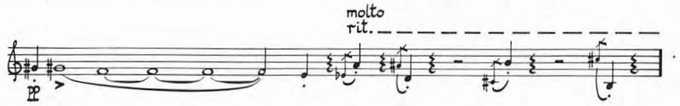
I left the first note of the *formula*, which in the low register would actually have to be transferred to the end of the *formula*, at the beginning, so that the characteristic figure of low appoggiatura in ***ff*** and high quarter note in ***pp*** can be clearly heard as a mirror:

cycle connections: 

The 3 limbs at the beginning of cycle VI can be understood in this way; the grouping of the limbs is now 3 – 1 – 1 – 3 – 2.

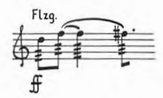
The grouping of the trills is 2 – 1 – 2 – 3.

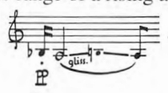
Three limbs are emphasized by conspicuous alterations: a *temporal transposition* presents the limb that has been transferred to the beginning four times slower; the descending tail in *molto ritardando* is displayed as an alternating mirror:



The mirror 

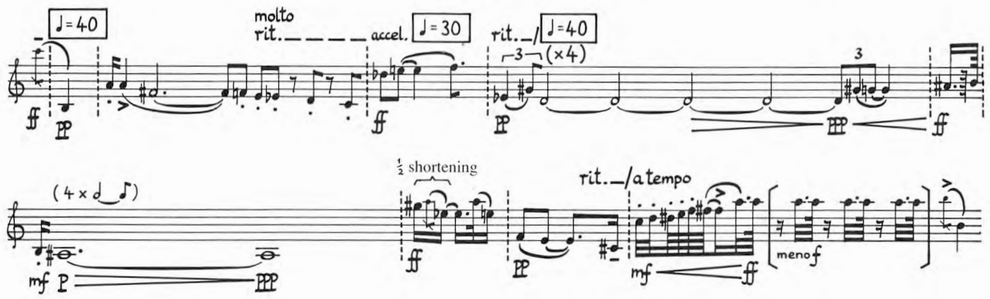
is a variant of the mirror that occurred in cycle III: 

Chopping by means of *flutter-tongue* marks the next limb: 

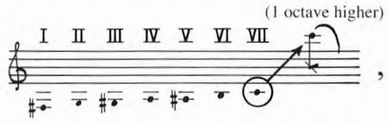
A *glissando* in the range of a rising and falling major second – the only glissando in the entire composition – accentuates the lowest limb: 

Cycle VII is heard twice in succession: the first time dissolved in rhythmic motion; the second time with the original temporal values and with the upper and lower levels merged in a **single** octave to form a flowing melody.

First I will show the *formula* pitches of cycle VII without the aforementioned rhythmic dissolution:



As a result of the six converging transpositions the limbs of the upper and lower layers again have the same pitches in both forward and reverse directions.

The last note – the one that was transferred to the beginning (appoggiatura) –  has arrived in the seventh transposition 

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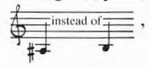
while the – originally – first note, now shifted to the **second position**, is delayed by a semitone in the tranposition of cycle VI 

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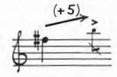
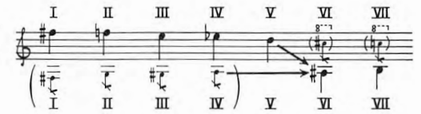
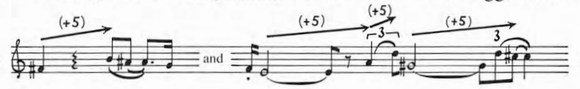
so that the chromatic line of the preceding cycle-endings is continued and above all so that the final note of cycle VII is a **fourth higher** than the starting pitch 

;



because the ascending fourth in the *formula* was the interval that triggered the renewal of the pitches and the expansion of the range: 

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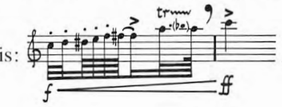
According to the scheme of limb transpositions the final note would of course have been a C and the connection of the penultimate to the final limb at the end of cycle VII would have sounded like this: 

.

However, a major second (instead of a minor third) is much more conclusive: 

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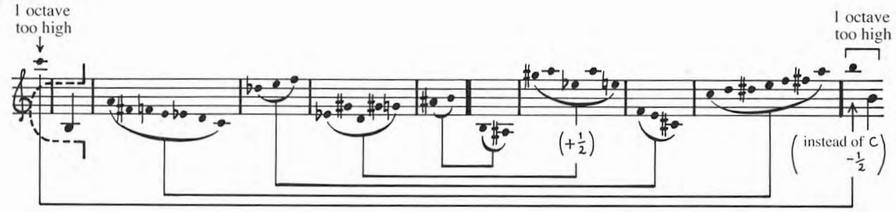
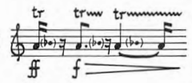
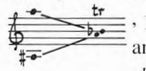
Now we return to the *dissolution in rhythmic motion* in cycle VII.

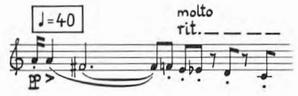
In 6 cycles the limb groups of the *formula* were partitioned by groups of trills. In cycle VII, after the transpositions, the upper and lower layers again have the same pitches (with the exception of the 3rd limb, as explained in the description of cycle III):

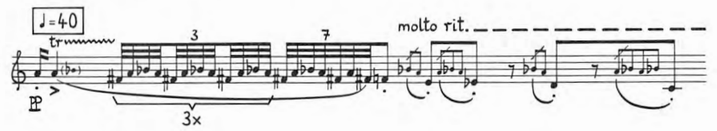


The trill 

etc., which – as also in this final cycle – always was heard exactly in the middle of the pitch range of the *formula* 

, permeates the entire *formula* in cycle VII and thereby brings about the *dissolution in rhythmic motion*.

The first limb 

becomes 

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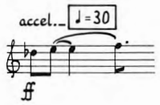
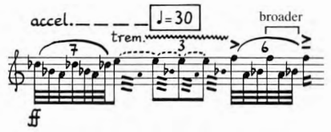
The second limb 

becomes 

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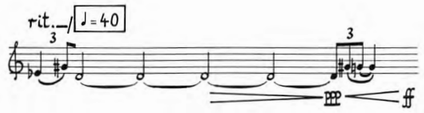
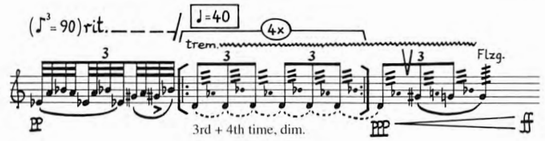
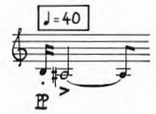
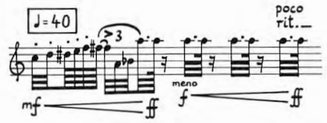
The third limb, in which the original half note of the 3rd pitch is multiplied by four, 

becomes 

and so on.

Irregularities in **cycle VII** are conspicuous in the central limb, which should have been and whose 1st note instead is *mf* with the 2nd note four times as long and *diminuendo*: 

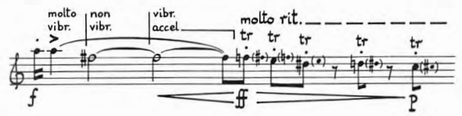
as well as in the final limb, whose ending is repeated three times in an insistent gesture: 

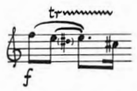
In conclusion cycle VII is restated in the form of a **synthesis of the two layers**. The limbs of the lower layer have been transferred to the range of the upper layer. The dynamic contrasts between the layers are neutralized and a uniform *forte* with long *decrescendi-crescendi* binds the *formula* together.

A large ritardando in the proportion 8 : 3 during the first limb, retention of the slow tempo ♩ = 15 until the center of the *formula* and a final acceleration serve to further unify the *formula*.

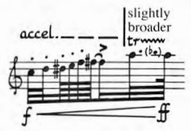
The 2nd, 4th, 6th and 10th limbs are presented with new **irregularities**: the 2nd limb with contrasts of *molto vibrato – non vibrato – vibrato accelerando*; the 4th limb with the instruction *"slow loop in space"* (which means that a note lasting 8 seconds is to be played with a looping motion, e.g.); the 6th limb with accent – *decrescendo – crescendo*; the 10th limb with an eightfold elongation, half trilled, half continuous, and with *vibrato – ritardando* as ending.

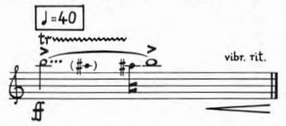
The **trills** of the middle layer have been set free: after the convergence of the upper and lower layers on the same pitches and the fusion of the two layers in a unified melody the trills lose their function as line of orientation and no longer separate the limbs. So now a couple of trills sit on **various** pitches like birds on branches:



and 

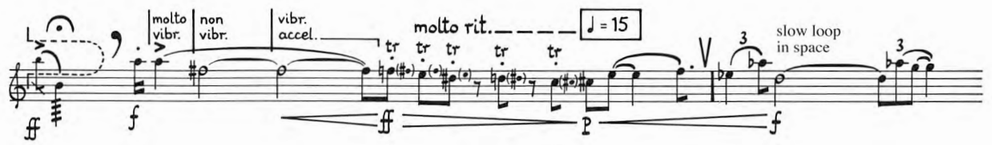
and for the last time with the trill pitches that we have been hearing since the beginning (but transposed by an octave)

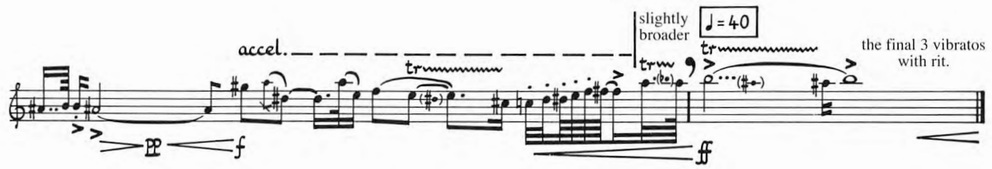


; and in conclusion, the trilled final pitch rises above the trill line of the entire composition by a semitone: 

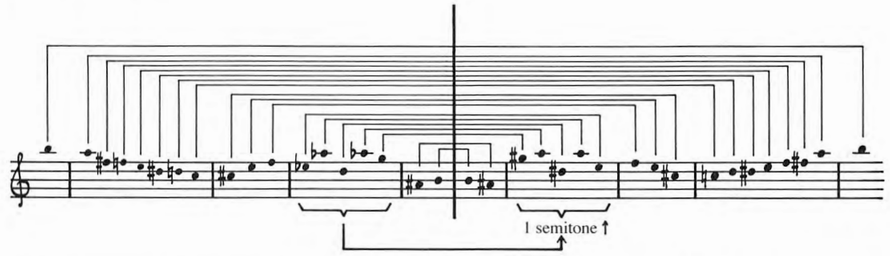
.

We now hear the new melody of cycle VII as a fusion of the two layers:

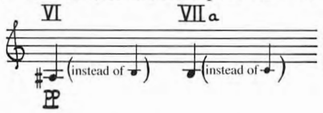




Not until this union of the previously separate layers in a **single** octave can we see why, since cycle III, one limb has been transposed a semitone higher: so that the axial symmetry of the pitches, by means of this slight upward shift, will sound nobler, more exalted:

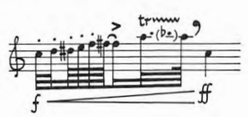


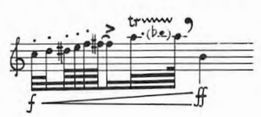
And for the same reason we can only now fully understand why, starting with cycle VI, moving the original 1st pitch (= 1st limb) to the final position was delayed and its pitch displaced downward by a semitone

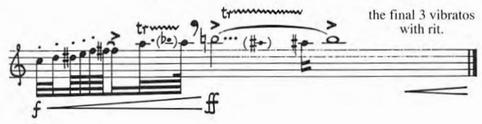


so that in cycle VII it could be transposed upward by one octave together with all limbs of the lower layer.

Through use of this device is was then possible to reinstate this pitch at the end, as if it were the beginning of cycle VIII. Even this decision would actually have necessitated its placement an octave lower – nonetheless the transposition to the octave of the final limb forms the best finale:

originally planned 

shifted (through the change in cycle VI) 

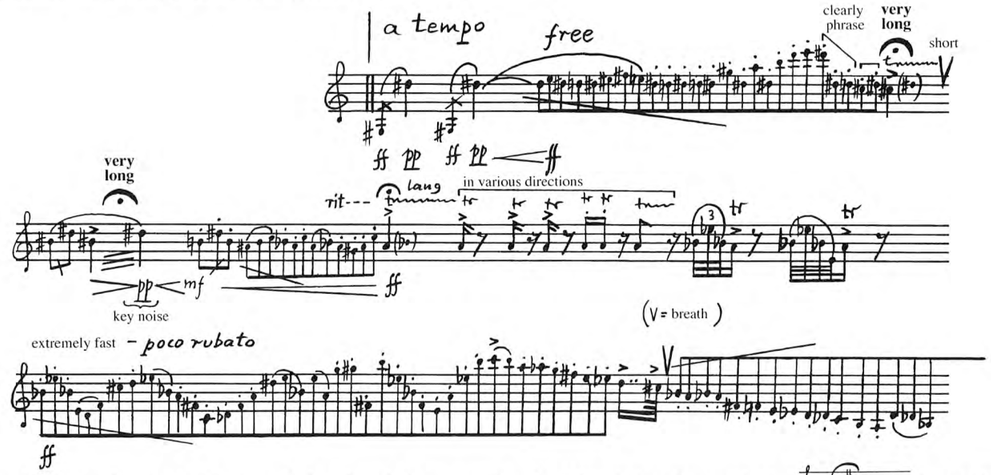
altered to provide a more conclusive ending 

Two Explosions

The entire formal process thus far discussed – i.e. the presentation of a *simplified formula* with rests, the elicitation of a trill with the simultaneous demarcation of the pitch space for the entire piece, the presentation of a *three-layered formula* with strongly contrasting upper and lower layers and the continuation of the trill as a partitioning and register-defining middle layer in the form of trill groups, the development of the processes of convergence and exchange of upper and lower layers through seven cycles concluding with the melodic union of cycle VII – did not yet satisfy me.

I felt the need for a passage of greater density and more rapid motion, and for a second passage in which the emancipation of the trill could be more fully experienced.

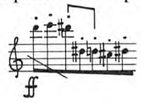
For this reason I composed **two explosions**: the first takes place after cycle III; the second after cycle VI. In traditional terminology one might refer to these passages as *cadenzas*; however, in the context of IN FRIENDSHIP the word *explosion* points much more clearly to the fact that at these moments the strict processual framework of cyclical transpositions and exchange of limbs is broken open.



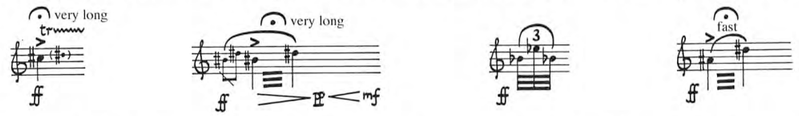
At the beginning of the ***first explosion*** the pitch range of cycle IV is twice demarcated:  and is then followed by four series of fast, unrhythmicized pitch chains with the instruction "freely", i.e. flexible with regard to speed within a fast tempo. The rapid flow is interrupted by four fermatas.

Inserted after the 2nd fermata is a group of short trills, fissured by rests, that are to be played "in various directions". The short, central *formula* limb  is set between the third and fourth pitch chains.

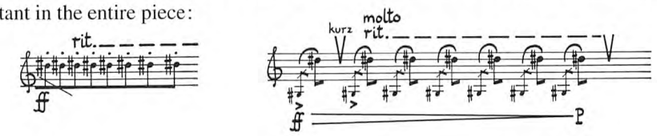
The **pitches** of this *explosion* encircle the beginning and final pitch D-sharp or E-flat of cycle IV,

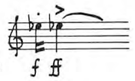
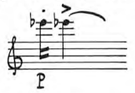
 strengthen it with the upper octave, 

with trill and tremolo connections to the lower major second and minor third and with support from the lower fourth:



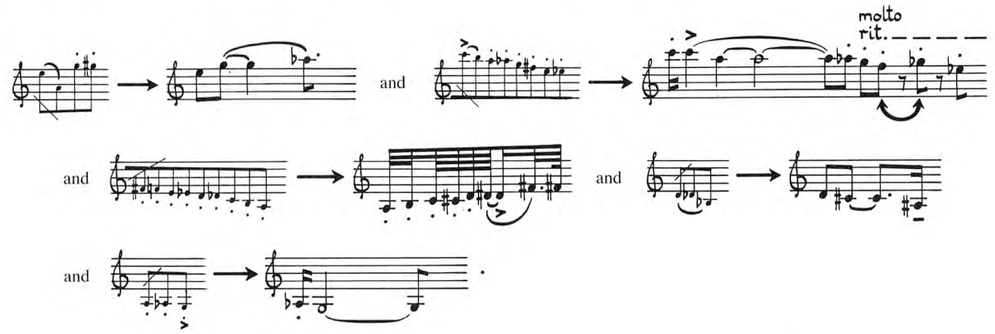
The eight repetitions before the final fermata and the seven repetitions at the conclusion of this *explosion* make this pitch the most important in the entire piece:

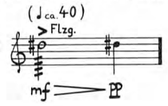


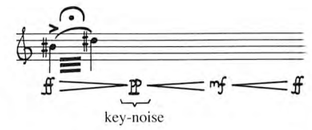
This is the **highest pitch** of the *simplified formula* which was stated the beginning  and therefore it is also the highest pitch of the *three-layered formula* that appeared after the emergence of the trill:  .

In addition, this **D-sharp (E-flat)** has an ambivalent tritone relation to the **trill pitch A**, which is interwoven throughout the piece. This A – in combination with the second trill pitch B-flat – is the second most frequently occurring pitch in the *explosion*.

In the lines connecting the aforementioned frame pitches to the principal pitches of this *explosion* there appear a few melodic fragments of the *formula* in the transposition of the subsequent – 4th – cycle:

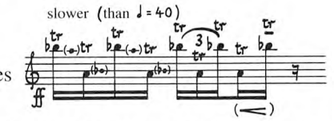


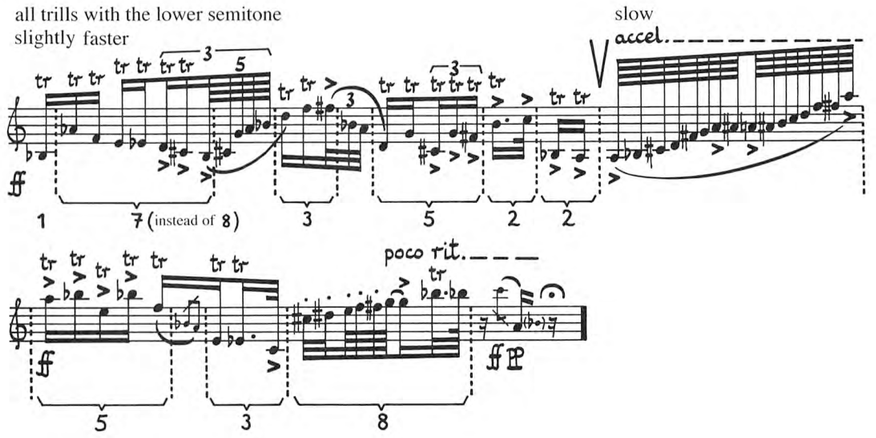
The entire *explosion* is *forte*, with two exceptions: a large dynamic funnel which has to be made really *very long* (wind players can breathe during the key or valve noises) and the final diminuendo, which is, with respect to dynamics, a deceptive ending because the following apparent beginning of cycle IV – with accent, flutter-tongue, "surprising gesture" and *diminuendo* – is the actual conclusion of the *explosion* and should be quite startling after the preceding calm:  .



Following cycle VI there is a *second explosion*, which I described previously as the *emancipation of the trill*. At the beginning I referred to the trill as line of orientation and explained that all of the intervals occurring in the layers of the *formula* as they converge through the seven cycles can be measured with reference to this trill, which lies exactly in the middle of the range.

Moreover I have shown that in cycle VII the pitches of the two reciprocally converging layers are again the same and that in the repetition of cycle VII they are transposed into the same octave register and fused to form a new melodic form. For this reason the trill is set free after cycle VI with the designation *vehement – happy*.

The ***second explosion*** is – after an initial *fortissimo* group in alternating octaves  – nothing other than a fast, fairly periodic reprise of the pitches of cycle VI in which each pitch is trilled with the pitch a semitone beneath it. A few large intervals between the limbs are connected by fast runs comprised of pitches taken from the *formula*.



Performance

All of the preceding explanations apply to structural elements that can be consciously heard in the composition IN FRIENDSHIP. However, I have barely touched upon those aspects that are not so easily explained: why did I choose these particular pitches, these intervals, these durations, this segmentation, this formal process? In all of my compositions these criteria are always different and specific to the work in question. They cannot be deduced.

I have described the structural considerations which I thought about as this composition was occurring to me on that Sunday afternoon in July 1977.

Thus, the most fundamental question, i.e. **why** – from the limitless possibilities – I chose these in particular, remains unanswered.

Everything that transcends textbook examples and turns a composition into a work of musical art has been left open.

But this is exactly what your personal sense of musical quality – informed by an *art, to listen* through which you perceive all of the structural aspects of a composition – enables you to assess.

You then make aesthetic judgments according to inner standards that are based on a genuine sense for musical beauty.

Aesthetic qualities are indeed different for every listener, according to his or her own path of development; such an aesthetic consciousness is, of course, based on more or less experience, discipline, work, education and not least on musicality – a native ability.

It is nonetheless the case that insight into musical quality, subjectivity notwithstanding, grows out of a common sense of beauty among related spirits and that the unforgettable moments of our musical culture are just those of shared musical emotion.

It is up to each individual to discover for himself the difference between a mere *tour de force* and a work of art.

Listening to the whole composition with eyes shut would be the most concentrated way to listen. But if you keep your eyes open, I should describe the **movements** of the soloist. The score specifies the following:

> IN FRIENDSHIP should be played by memory.
> The three musical layers (high melody, low melody, trills in the middle) should be elucidated by the directions of playing the instrument: to one side, to the other side and in front of the body (i.e. each trill should occur at a different position, with sudden changes of position inside of a quasi-circular, relatively narrow space).
> In so doing, energetic passages should be played with appropriate emphasis and animation while the quieter fragments should be played with a corresponding calmness.
> Furthermore, the intervals and melodic lines should be drawn in the air with proportional upward and downward movements of the instrument. In the rests, movement is to be avoided (an exception is the swaying movement which starts with the 2nd line – and for those players who plan to perform IN FRIENDSHIP I should hasten to add that these "swaying movements" have a tendency to be too large and conspicuous; they should actually be very discreet).

Movements of the performer that are usually "free" are here associated with musical functions – they should serve to elucidate the composition and thereby to deepen *the art, to listen*.

Now let us listen to IN FRIENDSHIP.

[Performance]

Transcendence

You will surely have noticed that much of what you experienced during this performance transcends explanation.

I have already mentioned this. But without the kind of explication that I have presented here such experiences remain uncertain; everything that has been felt grows out of these pitches, intervals, rests, rhythms, dynamic shadings and colours.

If I were to change just one note I would have to change all of the corresponding places in all the transpositions and the explosions, because I am aware of the inner order that occasions all of our sensations, perceptions and feelings.

In other words: everything that I have explained is indispensable; it is exactly the piece and nothing else. Whether you perceive this consciously is another question. But the large-scale structure is impressed on our minds by means of tonal vibration. Whether the intellect is capable of recapitulating and analysing this structure is something that each listener will have to judge for himself.

Nonetheless the necessary receptivity is present in all of us, assuming of course that we have been listening and were not somewhere else. Even if we have been thinking about other things while listening, the musical structure will have impressed itself upon us.

Music has a mysterious power to impress itself upon the spirit even if the intellect is on a completely different wave-length.

Thus analysis is a step toward understanding, and *the art, to listen* is indispensable if one consciously wishes to further educate oneself through music.

Certainly music is the most sublime means of cultivating our spiritual faculties in a generally valid, abstract manner – that is, to perceive vibrations, relationships between vibrations, organisms and processes of vibrations and thereby to grow in awareness, intelligence, mental fertility, polyphony, emotional richness and sensitivity.

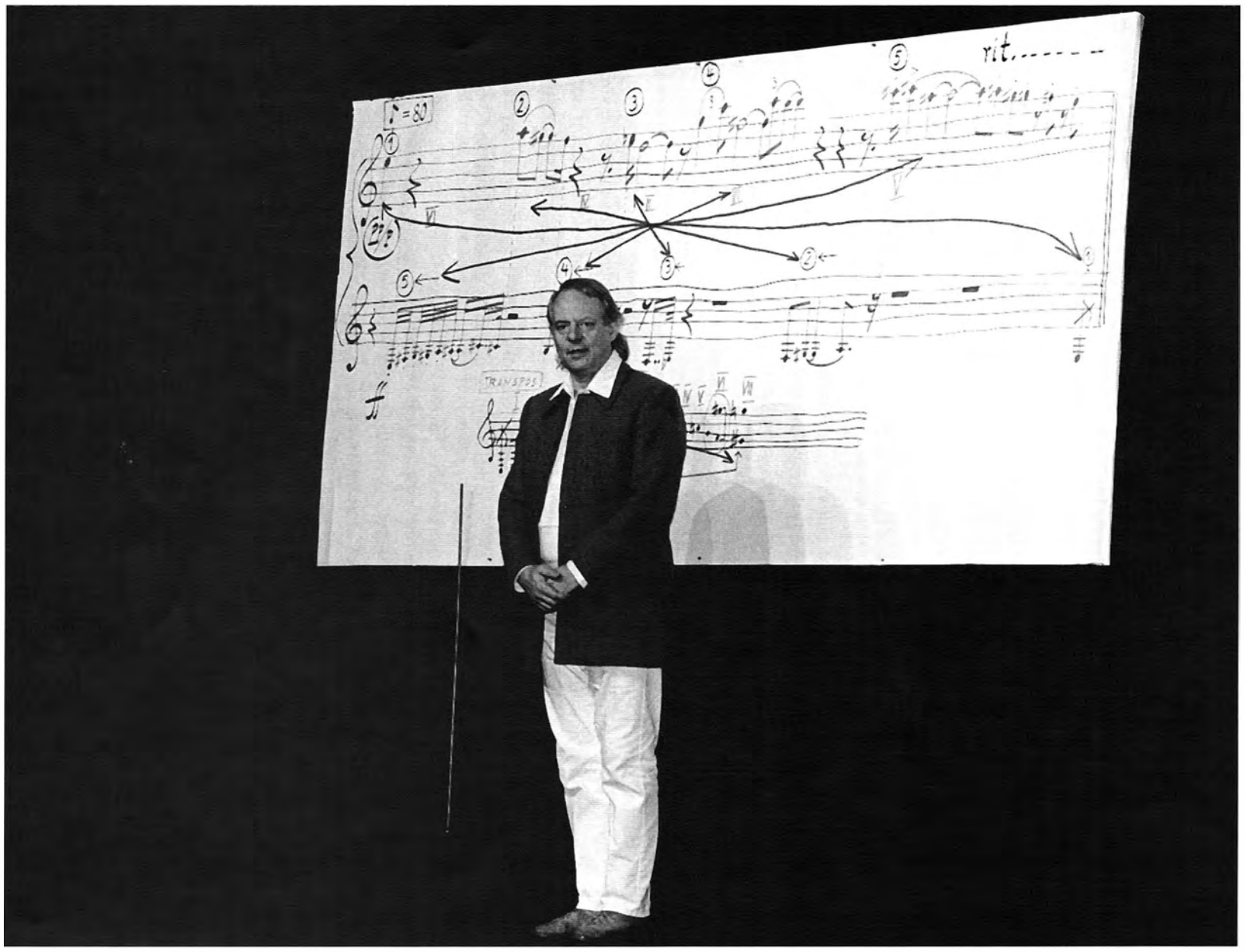
The crucial factor in listening to a composition is: what, exactly, occurs in particular and as process in this special, unique musical world and what does one – literally – hear out of it

If, after hearing a musical work, one listener says he "thought it was beautiful" while another says it was "too simple" and yet another found it "too long" – and so on – all this means is that listeners are exchanging calling cards, describing themselves, their own problems, their own abilities, their own taste. The music provides an opportunity for listeners to make statements about themselves – and that is meaningful and important. Nonetheless it occasionally happens that a rare work will point the way out of this jungle of opinions.

The judgment as to whether IN FRIENDSHIP is such a work can be confidently left to the future. In any case there is nothing to be changed in the composition; we can only hope that it will be played by gifted, inspired and conscientious musicians.

I hope that this presentation has contributed to the further development and enlivening of *the art, to listen*. It would be wonderful if, through regular practice, you – the listener – were to constantly cultivate and deepen your art of listening.

Thank you for your attention and good bye.



Stockhausen in front of the large original drawing (1.5 m x 2.5 m) which he has used to date (2001) for his lecture *The Art, to Listen* with IN FRIENDSHIP *for clarinet*.