

# Basics

Since music is heard consecutively in time, our examination of the structure of a musical composition will be organized chronologically. We will follow the same path as a listener, examining the structural requirements for beginning, for continuing and developing, and for bringing the work to a satisfactory close.

This mode of presentation will deliberately avoid concentrating on conventional "forms", since this organization seems basic to any satisfactory musical composition, within the limits set forth in the introduction. (In a later chapter, we will provide a concise glossary of standard forms, and there we will specifically discuss the relationship between our general principles and those forms.)

Before beginning, however, it will be useful to define some basic notions.

## Foreground vs. Background

Human perception operates simultaneously on several levels: More than one sensation may impinge on our consciousness at a time. When this happens we prioritize our perceptions: We cannot pay equal attention to more than one element at any given moment. This prioritization is ongoing, and changes in the order of priority may result accidentally (the telephone rings while one is reading a book) or - more interesting from our point of view - from artistic intention (a previously almost inaudible detail may attract more and more attention, to eventually become the most important event of the moment).

Musically speaking, we may refer to the element in a multi-layered texture that most engages that listener's attention at any given moment as "foreground", while the secondary elements constitute "background". (Our use of these terms has nothing to do with Schenkerian analysis.)

While the specifics determining what will be perceived as foreground or background in any particular case can occasionally get complex, normally they are easy to define. (A good deal of the study of orchestral balance is nothing more than learning to predict what will dominate the texture in a given combination.)

All other things being equal, the ear follows, as foreground:

- the top: The ear more easily grasps extremes of texture than the middle. Examples of melody written over accompaniment figures are omnipresent in the repertoire.
- action: Often the element with the most activity attracts attention, e.g. in a texture consisting of held notes and moving lines, the moving lines take precedence.

*(repertoire example) Beethoven, 6<sup>th</sup> Symphony, 1st movement, m.115 ff: The violin line emerges over sustained pedal tones in the other instruments, due to its richness of pitch, rhythm, and articulation.*

- novelty: When presented with familiar and new material at the same time, the new material demands more attention.

*(repertoire example) Ravel, Rapsodie espagnole, "Prélude à la nuit", m. 28: When the new melody arrives at m. 28, it stands out because of its novelty, compared to the four note ostinato that has been playing since the beginning of the piece.*

- loudness or timbral richness: If playing lines of equal complexity in the same register, e.g. a trumpet will demand more attention than a flute.

*(repertoire example) Bartok, Concerto for Orchestra, 2<sup>nd</sup> movement, m. 90: Despite a very active accompaniment by the strings in the same register, the main line, played by 2 trumpets, emerges clearly as foreground.*

Possibly simple curiosity plays an important role here. This would make sense biologically: An organism needs to make sense what is going on around it. It therefore concentrates on the area presenting the most information to decipher. (Note that there is a big difference between **visual** and **auditory** information in music. For example, although a long, held note in a solo violin may be dwarfed on the page by other instruments playing a moving accompaniment figure, the soloist's fairly unpredictable vibrato and constantly evolving dynamics will capture the listener's attention. (Simulated, overly regular vibrato, will not!)

## Flow vs. break; continuity vs. surprise

*" [...] convincing continuity: one must have that above all other things."*  
Elliott Carter

The distinction between foreground and background bears directly on issues of musical flow. To understand how, we need to explore the nature of musical unity and variety.

It is conventional to speak of unity and variety as the cornerstones of artistic structure. However, these concepts can be formulated in a more useful way for composers. Unity is a difficult notion to define in music because it must rely on memory. Unlike the spatial arts, music takes place in time. In particular, the temporal nature of music does not permit perception of the whole, except in retrospect; or, perhaps more accurately, as an experience spread out over time. Music depends on a web of memories and associations that gets richer as the piece progresses. Unity is therefore required on (at least) two levels: local flow - the convincing connection of one event to the next - and long range association.

Successions of musical ideas can be understood on a continuum of various degrees of continuity, ranging from the smoothest flow to the most abrupt change. Unity and variety thus emerge not as two separate phenomena, but as different degrees of same thing. If the flow of the piece provides no novelty, the music is boring; if there are too many fits and starts, the discontinuities will break up the work's coherence.

The composer's first and most fundamental problem is therefore to ensure the overall flow of the piece, from beginning to end. However the **degree** of novelty must be varied at different points.

The key to controlling this balance, between emphasizing common elements and introducing novelty, lies in the interaction between the perceptual levels described above. If the novel elements are very salient, the effect will be one of contrast. If the changing elements are more subtle, the

listener will sense gradual evolution, or relative stability. A convincing musical form is not possible without many degrees of stability and novelty.

*(repertoire example) Beethoven, 3<sup>rd</sup> Symphony, 1st movement, m.65 ff: The change to a new motive (with 16<sup>th</sup> notes) is in the foreground, but the repeated notes (upper strings and winds), continuing from the previous passage, provide an audible link in the background.*

Any clearly audible musical element can create connection, or novelty. Among the most obvious dimensions for the listener, and thus the most useful, are:

- register.

*(repertoire example) Ravel, Pavane pour une infante défunte, m. 13: The 2<sup>nd</sup> theme is quite similar in character to the first theme, but the fact that the oboe opens up a new register (even though the change is quite mild) creates an effect of freshness.*

- speed (note values and harmonic rhythm).

*(repertoire example) Beethoven, Sonata, op 2#1, 2<sup>nd</sup> theme, m. 20 ff: Most of the novelty here comes from the accompaniment, which is in steady 8<sup>th</sup> notes for the first time.*

- motives.

*(repertoire example) Brahms, 3<sup>rd</sup> Symphony, 1<sup>st</sup> movement, m.3 ff: The arrival of the new theme, in vln. 1, provides foreground novelty, while the imitation of the melodic profile of the opening chords (now in the bass) adds an element of continuity in the background.*

- timbre.

*(repertoire example) Ravel, Bolero: Over an extremely repetitive and predictable structure, novelty results mainly from timbral variation, at each new presentation of the theme.*

Various elements are often combined.

*Quartet #3: In m. 135, novelty predominates, introducing a contrasting section. The main line passes from the 1<sup>st</sup> violin to the cello, leaving the high register empty. The slow, cello line is pizzicato, and introduces triplets. The two sections are linked by the pizzicato chords, which begin as accompaniment in m. 131, and the notes of the D major harmony, heard in the 2nd violin in m. 134.*

## Articulation; degrees of punctuation

Articulation is necessary, as Schoenberg points out, because listeners cannot grasp or remember that which has no boundaries.

The composer needs many degrees of articulation: The degree of punctuation chosen gives the listener important cues about where he is in the piece. We shall shortly discuss articulation in more detail; what concerns us for the moment is the role of articulation as a fundamental process of musical hearing.

## Rate of presentation of information

Closely related to the effects of articulation is the speed at which new elements arrive, and the prominence of the changes: If articulation is brusque, change will be more salient.

The psychological effects of the rhythm of presentation of new information make possible a continuum of character effects, ranging from very restless to very calm. The quicker the pacing of new events, the more demanding is the job of the listener, and consequently, the more exciting the effect.

**Poco Più Mosso** ♩ = 70

**accel. poco a poco**

**Tempo 1**

*Quartet #2, 1<sup>st</sup> movement: Between m. 51 and m. 64, there is a steady increase in the rate of new information. This is most obvious aspect in the accelerating harmonic rhythm. But the increasing closeness of the imitations (2<sup>nd</sup> violin in m. 51, 1st violin in m. 56, and then the viola, newly arriving in m. 58) also adds intensity, as does the increasing presence of simultaneous 16<sup>th</sup> notes in all the parts. The last major change is the arrival of a simpler, octave doubling texture in m. 63. The overall effect is to "raise the temperature".*

*(repertoire example) Tchaikovsky, Symphony #6, 2<sup>nd</sup> movement. New elements are presented gradually, reinforcing the relaxed and gracious character of the movement: m. 1, the theme is first presented in a light setting; m. 8, the celli add momentum with their scale in 8<sup>th</sup> notes. These 8<sup>th</sup> notes are echoed in m. 10, m. 12, m. 14, and m. 16 (a and b). In m. 17: winds and horns make the 8<sup>th</sup> notes continuous; in m. 25, the continuous 8<sup>th</sup> notes become even more prominent, now in the strings.*

*(repertoire example) Schubert, String Quartet #9, 1<sup>st</sup> movement: A restless character results from continuous novelty, reinforced by sudden dynamic changes. The first phrase (m. 1-4) already contains a strong contrast between the monophonic half notes of the first bar and the short chords of m. 3-4.*

*After an answering phrase, in m. 5-8, a new nervous figure in 8<sup>th</sup> notes leads immediately to yet another new motive (vln. 1, m. 9-10). A climax arrives at m. 13, bringing with it still another new element: syncopation.*

## **Stability vs. instability**

If we start from the two extremes of rate of presentation - very slow to very fast - we can define an important polarity: stability vs. instability of structure.

Consider the following passage:

The image shows a musical score for the first movement of Beethoven's Piano Sonata, op. 7, measures 136-165. The score is in 8/8 time and features a complex, tonally unstable passage. It includes dynamic markings such as *ff*, *fp*, *sfz*, and *p*. The music is characterized by rapid changes in harmony and texture, with many distinct ideas presented in a short time.

(repertoire example) Beethoven Piano Sonata, op. 7, 1<sup>st</sup> movement, m. 136-165 (end of exposition, start of development).

Could this passage serve as the beginning of the piece? While it is certainly provocative and "unresolved", as a beginning it seems overly abrupt, and downright hard to grasp as an introduction to the work. Why is this? We may note several aspects of this passage:

- It is tonally roving and unstable, and never settles down for long on any clear tonic.
- Many distinct ideas are presented in a short time; the texture also is very varied.
- These ideas are juxtaposed rather suddenly, with very little transition.

In short, this passage sounds unstable. As indicated above, instability like this is more demanding on the listener than closed, carefully delimited structures, with smooth internal transitions. The connections between (sometimes incomplete) ideas are not always obvious, and the listener does not have much time to absorb new elements before they are superseded.

Compare this with the exposition from the same movement. Much of the material is the same, but it is organized very differently:

**Allegro molto e con brio**

(repertoire example) Beethoven Piano Sonata, op. 7, 1<sup>st</sup> movement, m. 1-24. These two examples help to clarify our dichotomy between stability and instability: The issue is largely one of predictability.

Relatively stable structures are suitable for exposing material for the first time, or for giving the listener a sense of resolution (as in a recapitulation). Their purpose is to make the material easily memorable or recognizable.

Unstable structures "heighten the temperature", and thus supply greater intensity. More abrupt, surprising successions of ideas, usually depend for their coherence on the listener's prior familiarity with the material.

The following example might be considered atypical for an exposition, since it quickly presents two contrasting motives in quick succession:

(repertoire example) Mozart, Jupiter Symphony, 1<sup>st</sup> movement, m. 1-4.

But a closer look reveals that the ensuing phrase repeats this opposition; the harmony and rhythm of the two phrases are quite symmetrical - that is to say, predictable - and the following passage (m.9-23) is solidly cadential, clearly confirming the tonic.

While the opening opposition of ideas does indeed suggest conflict to the listener, and implies a

movement of a certain duration, the overall structure of the passage is still fairly stable.

## Progression

To give music an overall sense of direction, often its evolution takes the form of a progression. Progressions are important tools for creating expectations, and therefore tension.

By "progression" here we do not necessarily refer to harmonic successions of chords. Rather, we mean any incremental series of events, of the same type and over a limited time span, which are easily perceptible to the listener as moving in a continuous gradation. Examples might include a series of rising high notes in a melody, gradually decreasing registral spread, harmony that gets more and more dissonant - or consonant.

*(repertoire example) Haydn, String Quartet op. 76 #2, 3<sup>rd</sup> movement: In m. 1-3, the melodic line rises first to F, then to G, then finally to A. This progression gives a straightforward sense of direction to the phrase. When the following leaps take the phrase suddenly higher, in m. 3-4, (up to D and then to E) the effect is more dramatic, because of the previous conjunct movement.*

By setting up such progressions, the composer gives the listener points of reference, and encourages projection of the music's trend into the future. In short, he creates expectations. The actual course of the music is then compared by the listener with these expectations. If they are met, psychological tension decreases, and if not, it increases.

One of the most effective ways to use progressions is to create predictability on a higher level, while leaving details less obviously organized. For example, within a complex melodic line, successive peaks might rise progressively higher. The relationship between the peaks would provide clear direction and coherence, while the details would provide interest and novelty.

Adagio  $\text{♩} = 80$

Quartet #4, 3<sup>rd</sup> mvt.: This melodic paragraph is held together by two progressions: textural and melodic. Starting with the 1<sup>st</sup> violin and the cello alone, the texture gradually thickens to include the viola (m. 5) and the 2<sup>nd</sup> violin (m. 14). The melodic line reaches successive peaks, gradually rising through middle C (m. 5), C an octave higher (m. 7), G# (m. 8), A# (m. 10, vla.), and C (m. 11). After a descent to D (m. 13-15), the line begins to rise again, through E (m. 16, vln. 2), G# (m. 18), and finally surpasses the previous peak, with C# (m. 19, vln. 2), and D (m. 20). While not too obviously linear, the overall rising line is nonetheless very perceptible, and gives the whole passage a clear direction.

(repertoire example) Chopin, Nocturne op.32 #2, 1<sup>st</sup> section (m. 1-26): While the phrases are organized fairly straightforwardly, Chopin makes successive presentations of the ornamental figures rise gradually from G (m. 5), through Ab (m. 9), and Bb (m. 14), to C (m. 22). The fact that the ornamentation gets more elaborate at each presentation also contributes to the sense of evolution.

## Momentum

One way of understanding the effect of progressions is as creating **momentum**: the tendency of the music to continue in a given direction. This is another crucial aspect of musical direction.

Momentum also acts on a rhythmic level, even without progressions: once a given level of rhythmic activity is attained, it is hard to abruptly change it without some punctuating event. (Schoenberg calls this "the law of the smallest notes".) One simple but effective aspect of almost all Bach fugues is their tenancy to continue with their fastest note values all through the piece.

The image shows a musical score for a string quartet, specifically the finale of String Quartet #4. The score is in 3/8 time and has a tempo of 160. It consists of two systems of music. The first system starts at measure 235 and ends at measure 240. The second system starts at measure 241 and ends at measure 245. The music is characterized by a continuous triplet of 16th notes in the bass line, which grows in volume (p to ff) and thickens in texture as the piece progresses. The upper parts also feature triplet patterns. The piece ends with a fortissimo (ff) dynamic.

*String Quartet #4, finale: The energetic ending results mainly from the momentum of the continuous triplet 16<sup>th</sup> notes, enhanced by a crescendo, and the thickening texture.*

*(repertoire example) Stravinsky, Petrushka (original version), one bar before #100 ("A Peasant Enters with a Bear. Everyone Scatters."): At this point, the music has built up a great deal of rhythmic momentum, with steady 8<sup>th</sup> notes, and rushing 16<sup>th</sup> note runs. To illustrate the disruption created by the peasant with the bear, the sudden arrival of the low register and the new use of quintuplets in the upper parts break up the previous momentum. All this prepares the listener for the bear's dance.*