

Modernism in music

Modernism in music began in Paris and Vienna in the years between 1890 to 1914. As basic principles were being challenged in the visual and literary arts, so too were



Robert Motherwell, *Elegy to the Spanish Republic, No. 18*

In this work, the artist is experimenting with the elements of art, like space, mass and colour, just as twentieth-century composers were experimenting with the elements of music.

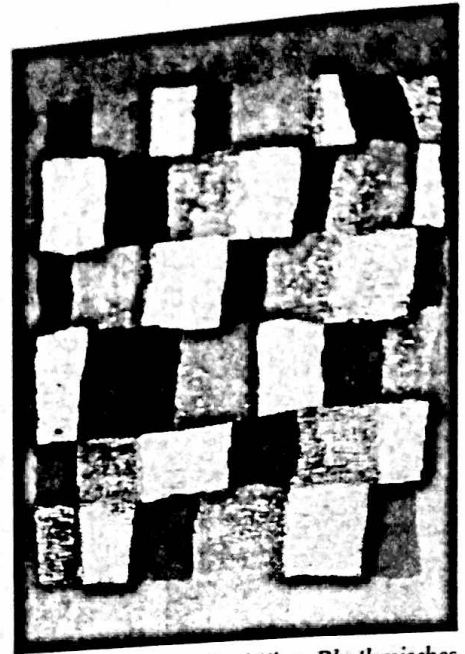
musicians questioning the fundamental ideas of music. Over the centuries, Western music had developed rules that were stable. These rules governed the way composers worked with the elements of music like rhythm, melody, tonality and harmony. While some composers continued to make use of previous models, avant-garde twentieth-century composers attacked the traditional musical notions and developed other ways of making

music. Others invented completely new ones. They questioned everything. The major-minor system was often rejected, new harmonic structures were invented, and complex new rhythm patterns evolved.

The greatest composers writing the early avant-garde music of the twentieth century were Claude Debussy, Igor Stravinsky and Arnold Schoenberg. Called an Impressionist because he used repeated fragments of melody and juxtaposed different tone colours, Debussy developed subtle and mysterious effects in orchestral colour. His musical ideas were elusive, often suggesting rather than making clear statements. Stravinsky, a Russian composer working in Paris, launched a personal attack on Romantic music. He devised new pulsating rhythms that gave his music a harsh, almost mechanical edge. These strongly accented, steady rhythms are the total opposite of *rubato*, the rhythmic hallmark of Romantic music, in which performers stretch the rhythms to add new levels of emotionality. Schoenberg, in Vienna, invented a whole new system to replace the traditional tonality. Associated with the Expressionist movement in Germany and Austria, he tried to focus on the interior being and the evocation of extreme feelings.

Rhythm

Until this time, Western composers had done relatively little exploration of rhythm. The rejuvenation of rhythm, achieving more of the suppleness and complexity of non-Western music, is one of the main accomplishments of the modernist composers of the early twentieth century. They began to use much more complicated rhythm structures in their music. Often they changed the metre frequently within a composition. A piece of music might start out in 4/4, then have a measure in 3/4, another in 6/8, and perhaps even another in 2/4. Sometimes they used non-symmetrical patterns, with an odd number of beats to the bar, like 5/4 or 7/4. Composers also made use of polyrhythms, which involved the use of several rhythmic patterns at the same time. One device was to use two different metres at the same time, for example 2/4 time in the treble and 6/8 in the bass. Another device was rhythmic freedom, allowing the different performers who were part of a work the freedom to play at whatever speed they chose, so that several overlapping rhythms occurred instead of the usual steady pulse.



Paul Klee, *Rhythmisches*
In this picture, Klee is giving rhythm a pictorial representation.

Melody

In the nineteenth century, melody was primarily vocal in nature. Composers wanted to write music that could make instruments sing like the human voice, but composers in the early twentieth century did not seem to think of melody in terms of the voice. Melodies became unpredictable, moving in unusual rhythms, making wide leaps between unexpected notes and in dissonant intervals. Phrases were of different lengths. Debussy, for instance, frequently suggested melodies without clearly delineating them, leaving the listeners with an impression of melody but no definite tune that could be identified. Stravinsky started with Russian folk tunes, but carved them into abstract fragments. Schoenberg's melodies often made no sense at all in the traditional way of understanding melody. In his song cycle *Pierrot lunaire*, he used a half-speaking, half-singing style that went from whispering to shrieking.



A cello motif from Schoenberg's *Pierrot lunaire*



On this poster advertising a performance of Schoenberg's *Pierrot Lunaire*, the vocalist is listed as performing a recitation.

Harmony: expanding tonality

The new sounds that composers were making did not fit within the confines of the traditional major/minor system of harmony, so they tried to expand the system or to replace it with a new one. The style developed by Debussy, known as "Impressionism," may seem like an extension of late Romantic harmony, but it was actually a big step away from traditional functional harmony.

Debussy used dissonant chords in series or streams that did not lead to any resolution and weakened any sense of harmonic function. This style was pushed further and composers kept finding new ways of expanding tonality, searching for what Schoenberg called "the emancipation of dissonance." Dissonance produces tension, while its opposite, consonance, where the notes seem to fit together without tension, suggests repose. Composers have worked with these two elements from the beginning of Western music history but until the twentieth century, consonance was treated as the normal state of affairs and dissonance a temporary disruption that needed to be resolved. Classical and Romantic composers used cadences that very clearly resolved any pull away from the tonic. But in the new avant-garde music, tension became the norm. Some note combinations were more dissonant than others, and composers learned that they could achieve a certain resolution by following extreme dissonance by a lower-level dissonance so they were freed from the need to return to consonance.

As another way of expanding tonality, composers began to write dissonant counterpoint. Instead of separating the lines of counterpoint in consonant intervals like thirds, they based their counterpoint on dissonant seconds or sevenths. They also began to emphasize the primary intervals by using lots of parallel fourths, fifths and octaves, something composers had tried to avoid since tonality was established.

Harmony: expanding tonality

New chord structures were developed by twentieth century composers. Traditionally harmony was based on triads, three tones in intervals of a third, like the first, third and fifth notes of a scale. Four-note combinations were also commonly used, adding another third (1-3-5-7). Ninth chords however, were a new development, adding a further third, making the interval between the lowest note in the chord and the highest a ninth. Debussy in particular used ninth chords to enable him to float back and forth between major and minor without belonging to either, giving his music an elusive quality. Composers continued to add notes to these big chords, creating polychords of six or seven notes. They were extremely dissonant and added a great deal of tension to the music.

Composers kept piling up dissonances on top of each other to produce new sounds. This culminated in tone clusters, which consisted of large numbers of adjacent tones being played at the same time. On the piano, a tone cluster can be played by pushing down all the keys you can with your forearm.

These complex chords increased the tension and enabled composers to play two or more harmonies at once against each other. This is called polytonality (or bitonality, if only two keys are involved), and twentieth century composers have used it often. Stravinsky was one of the earliest composers to use this technique in his ballet *Petrushka*, which is now famous for sounding C and F# triads at the same time. The American composer Charles Ives wrote a piece for two brass bands, each playing in a different key. The main proponent of bitonal music was Darius Milhaud, who also sometimes used three or four keys simultaneously.



Structure of a ninth chord built on C



These few bars illustrate Debussy's use of ninth chords in *Pelléas et Mélisande*.

Harmony: replacing tonality

One of the ways composers sought to deal with the constraints of tonality was to search for other scale patterns, like the church modes of the Middle Ages. The modal system was based on the eight different scale patterns that were used for Gregorian chant, which had been whittled down to two modes during the seventeenth and eighteenth centuries to become the major and minor system of tonality.

If you start on any white key on the piano and play an octave using only the white keys, you will have played a scale in one of the church modes. Only if you start on C will the scale have the familiar do-re-me sound. All the others sound a little different, perhaps a bit old-fashioned, and using them gave composers an alternative to tonality.



This is an illustration of four of the modes used in Gregorian chant.

Other scales were developed as an alternative to the traditional diatonic major and minor scales. The five-note pentatonic scale, most easily explained as the notes corresponding to the black notes on the piano, was rediscovered. It had been common in Asian music and Western folk music for a long time, but had never really been used by composers of art music in the Western world.



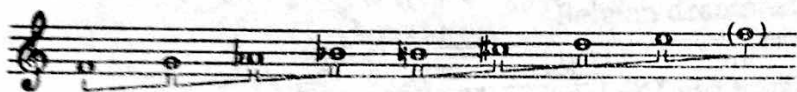
Pentatonic scale

The whole-tone scale was a new creation. There are only six notes in the whole-tone scale, each with a whole tone between each pitch. Without any half-tones, there is no pull towards resolution the way there is in moving from the seventh to the eighth note in the traditional octave scale, so it avoids the consideration of tonality. Debussy used the whole-tone scale frequently.



Whole-tone scale

Another scale developed by twentieth century composers is the octatonic. A favourite with Stravinsky, it has eight pitches within the octave in alternating whole and half steps.



Octatonic scale

Harmony: the twelve-tone system

The Viennese composer Arnold Schoenberg was concerned that increasing dissonance and atonality would lead to musical chaos. In the 1920s, he worked out a method of composing using twelve tones that were equal in importance, thus avoiding a tonal centre. He arranged the twelve tones of the chromatic scale, all the black and white notes in an octave, in a series he called a tone row, or set. Each composer using this system makes up his own series before starting the work. The notes are always used in that same order. There are three other possible variations of the row: the inversion keeps all the intervals between the notes the same but reverses the order so it is like the first set but upside down, the retrograde reverses the order of the notes so they are backwards, and the retrograde inversion turns the row upside down and backward. In addition, Schoenberg could use transposition, so that the set begins on a different note. The pitches could appear in any octave and be used in any rhythm pattern. Schoenberg's method came to be called serialism, and was the basis for much later experimentation. His work and the developments to it made by his two students, Berg and Webern, are some of the most important contributions to music in this century.



Arnold Schoenberg said he would "free music from the tyranny of tonality."

The series: original form, inversion, retrograde, retrograde inversion

The image displays four musical staves, each representing a different variation of a twelve-tone series. The notes are represented by black and white circles on a five-line staff. Below each note is a number from 1 to 12, indicating its position in the series. The first staff shows the original form (1-12). The second staff shows the inversion (1-12). The third staff shows the retrograde (12-1). The fourth staff shows the retrograde inversion (12-1).