

# MODERN MUSIC

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## THE LYCEUM OF SCHÖNBERG

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THE Schönbergian technic, the kind of composition and analysis used by Schönberg and his school, is a new attempt to coordinate musical material according to certain fundamental principles. It was developed by Schönberg in the little town of Mödling near Vienna, where the master met with his disciples to discuss the problems of composition and analysis, much as the peripatetics worked out their philosophy at the Lyceum in Athens.

"Fundamental principle" implies "fundamental law." Though the attempt to deduce the laws of art will probably always be futile, we never give up searching for them. What we ultimately find are but the obsessions, the prevailing concepts of a period or of an individual. "Fundamental principles" may be defined as obsessions which have been so long maintained as to seem universal. From discussion with Schönberg and from a study of his writings I have deduced a few of these principles and shall attempt to give them here with their Schönbergian application and interpretation.

I. An object must have form to be recognizable.

Form, the sense of form (*das Formgefühl*), is the primal law for Schönberg. A form-concept is the result of a repeated experience symbolized usually by a word. In music our form-concepts are specified by the terms, "song-form," "rondo-form," "sonata-form," etc., etc., each having its particular characteristics. Even the parts of these forms must be well-defined and distinguishable, just as the parts of the body are differentiated.

II. The form of an object is characterized by its boundaries or contour line.

In music the contour is determined by the melodic line, probably the only element to which the average listener gives his attention. Hearing a work for the first time he may be unable to follow even that line. This is especially true of Schönberg's music, where the melodic line is often confused with others that pass simultaneously through the gamut of the whole orchestra. Yet each one of these voices has its particular function; it is either principal or secondary, is used as an accompanying figure or a sustained part of the harmony, or it functions dynamically as a nuance or harmonic resonance. Every line of Schönberg's has its definite beginning and its cadence, yet most performers of his music are not aware of this. In fact few musicians can definitely identify a modern cadence, though it is in essence no different from any other. The old contrapuntists taught that a voice should enter when another leaves. The characteristic marks were the extension of note values and the tendency of the melody to fall to its close. The indications of a Schönbergian cadence are psychologically similar and should be always carefully observed. Occasionally large skips occur in Schönberg's lines, which make them difficult to follow. But this is only relative. When the unusualness becomes familiar through repeated experience the difficulty disappears. The form of Schönberg's music is not easily discerned by the average listener because he cannot follow the contour line nor perceive the work in its entirety.

III. Balance and symmetry are essential to a good form.

Balance and symmetry are found in most organic forms of nature, that is to say, we recognize balance and symmetry in nature, whether they are accidental or not. Balance and symmetry in music are produced by the recurrence of themes or phrases either in their original form or in variation. Schönberg does not believe in lengthening a composition by mere repetition, but prefers to vary the original phrase. Sometimes it is difficult to recognize the original theme or phrase in the variation, but thorough examination or arbitrary juxtaposition will always reveal a close relation between even the most remote forms of variation and the original.

IV. Coordination or relation of parts to the whole is an essential factor in form.

Coordination in organic forms is assured through mitosis, or the continued subdivision of the original germ-cell (cytula). In music this germ-cell is, for Schönberg, a single motive. The forms of variation which the motive undergoes might be called musical mitosis. Even in his analysis of classical works Schönberg refers all musical occurrences in a composition to a single motive. Methods of varying a motive are: (1) changing the intervals or notes and holding the rhythm; (2) changing the rhythm and using the same tones or intervals; (3) simultaneous combination of both these methods; (4) inversion; (5) elongation; (6) contraction; (7) elision (of one or more notes); (8) interpolation (of one or more notes); (9) the crab-form (*motus cancrizans*, repeating the motive backwards). All these devices for variation are coordinating factors in the construction of a piece of music. Schönberg uses them to build not only the complete thematic material but all other parts of the composition as well—secondary voices, accompaniments, harmonies etc., with the possible exception of the up-beats, connecting links and cadences that are sometimes “free,” and are considered independent of the motive. The crab-form has been regarded by some theorists as useless *Spielerei*, but it occurs frequently in master-works and can be easily recognized as a variation when it is not too greatly modified by the application of “crab” rhythms. Though crab-forms are not as frequently used as other variations they are nevertheless as logical as, for example, inversions. Both forms, the crab and the inversion, might be compared to the different positions of an object in space. Whether it is upside down or on its side, it still remains the same object. Of course in music the element of time interferes with our ability to perceive the object as a whole but that does not alter its identity no matter what the spatial position.

V. Contrast is necessary to differentiate the parts that make up the whole.

The degree of contrast is relative and depends upon the individual's ability to differentiate. Contrast in music is brought about by the rhythmic, dynamic or harmonic differences of

periods or phrases in juxtaposition. Yet these differences must not violate the principle of unity and coordination. Contrast in coordination is an important factor of the Schönbergian technic.



So much for the "fundamental principles." I shall now proceed to some characteristically Schönbergian doctrines.

#### The Twelve-Tone Series.

The twelve tone series is a definite arrangement of all tones of the chromatic scale in a set order. It is applied in all the forms of variation, harmonically or contrapuntally, horizontally or vertically, to the construction of every detail of a twelve-tone composition. The twelve-tone series is the "law" of the composition, the working material, not the theme but only the material for the theme. Any tone of the series may be used in any octave position, according to the discrimination of the composer. Tone relations are not binding in the sense of direction or position. The series may be divided or sub-divided into smaller groups of related motives, and any group may be joined to any other to form new combinations. "Free" tones (those that do not belong in the strict sequence of the series) may be interpolated between tones of the series, or between the groups composing it. The twelve-tone series may be used in transposition and in all sorts of combinations. Often the tones are scattered among various voices. Sometimes they are only the first notes of a sequential figuration. Naturally the various methods of applying the series will not always be immediately perceptible to the ear.

This particular form of technic has been extensively illustrated and analyzed in MODERN MUSIC\* by Erwin Stein and Willi Reich. It is an outgrowth of the esthetic and logical implications of the chromatic system, which has the chromatic scale as its foundation, in contradistinction to the diatonic, which uses major, minor and other modes. Its possibilities are unlimited, first because the choice of the series (which takes the place of the key, scale, or tonality) is arbitrary; second, because chordal

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construction is not restricted to building up by thirds, fourths, or fifths, etc.; and third, because the greatest "freedom" in coordination is left to the taste and discretion of the composer.

Members of the Schönberg school differ widely in their individual application of this technic. Such individuality is ensured by the plasticity of the system. There are those who cannot yet discern great differences in the works of the Schönbergians, to whom "in the dark all cats are black." But let them observe the rhythmic construction and the spiritual content if the fine differences in harmonic construction are not apparent. Remember that Beethoven, Mozart, Haydn and others used practically the same harmonic formulæ, those of the diatonic system.

Now to go on to a few doctrines of melodic, rhythmic and harmonic construction. Some of these did not originate with Schönberg but they are used by him and his followers and considered desirable qualities of good formal composition. I shall enumerate them without detailed explanation or argument.

#### Melody.

1. In general, a piece of music must unfold through fluent melodic lines of one or more voices. Music should not be static or hesitant.

2. Recurrent tones in the melody are apt to weaken it except when they occur within a line which moves by consecutive steps (conjunct motion). Recurrence of tones in lines moving by skips (disjunct motion) or on the low or the high points of melodic undulation is not desirable.

3. A melodic line should have only one high and one low point; and should exhibit a plastic variation in pitch.

4. A melodic line is best developed by variations of the form of a single tonal or rhythmic motive.

5. When the ear concentrates on the melodic element it comprehends it as the main idea, and others (harmonic, for example) seem secondary. This accounts for the increasing acceptance of dissonant forms. Such forms were at first prepared and resolved, or used imperceptibly in passing. Later they were emancipated from their customary surroundings and used "freely,"

without preparation or resolution, as in the free suspension, ninth-chords, pedal-points etc.

6. Problems which appear harmonic are often melodic.

7. Using phrases in sequence or repetition in the melodic line is an appropriate method of securing emphasis or of producing a climax. To achieve variety of harmonic or instrumental color their application as a form of expansion is permissible, if not to be admired.

8. Successive repetition of tones is permissible for rhythmic purposes.

9. A long melodic line or the thematic material of a composition must be clearly articulated by cadences and semi-cadences proportionately balanced.

10. The melodic line as well as the complete composition should give evidence of the creation of tangible, new-born, musical ideas.

### Rhythm.

Schönberg, so far as I know, has never expressed any definite opinions on rhythm with the possible exception first, that a rhythmical motive is a coordinating factor and may be used as the sole means of unifying a composition; second, that preserving the rhythm of a motive and changing the notes is an important means of variation. Otherwise rhythm probably has for Schönberg some mystical aspect which we have not yet fully grasped. He says in his *Harmonielehre*, "In art we represent the unlimited by the limited and thus our time divisions in music are most inadequate; they operate through a visual estimate of time. Our vacillating time-measures only crudely approach the rhythmic freedom of the cosmos, the Unlimited, the Unfathomable."

### Harmony.

I shall refer first to the *Harmonielehre*. The pupil makes his own exercise without the help of a figured bass or soprano line. Chords are juxtaposed with due regard to melodic construction of bass and soprano lines and of cadences. Strong and weak fundamental progressions are observed to the point when "vagrant"

chords are introduced (those that belong to any tonality or to none, like the diminished sevenths, augmented triads, Wagnerian chords etc.). Through enharmonic interpretation, Schönberg proves that any chord is a "vagrant" chord (hence the origin of the conception popularly known as "atonality"). The minor scales are used with a strict observance of the "turning-points" (*Wendepunkte*, i.e. the raised and lowered sixth and seventh degrees). The raised degrees must resolve to the tonic before the lowered ones may be used, and the lowered to the fifth, before the raised occur. This law preserves the truly minor character of a piece in a minor key, and makes possible the smoothest forms of modulation, for in modulation the law of the "turning-points" is likewise observed in major. No chromaticism of a note may be used before its preceding form has been resolved, the sharp upward, the flat downward, by the melodic progression of the voice. This rule applies to diatonic, not chromatic forms.

Schönberg's argument that tones which are "free" or "foreign" to harmony do not really exist has met with much opposition. He says, "Foreign tones are supposed to be accidental additions to the chords of the established harmonic system. Through them more or less dissonant sounds result, i.e. these foreign tones (suspensions, passing notes, changing notes, anticipations) require resolution or justification through melodic procedure. Now free tones are not really foreign to the harmony for they are parts of chords (a sounding together of three or more tones) and the effects that result through their use are harmonies, like all tonal combinations which sound simultaneously. These foreign tones give rise to harmonies which might indeed be foreign to the system built up on thirds. Yet some chords of that system have originated in the same manner as these 'foreign' combinations; at first applied carefully, inconspicuously (prepared and resolved), later they became the familiar occurrences of every harmonic piece. Tones 'foreign' to harmony ought not exist in any harmonic system, for a harmony is a sounding together of tones."

So much for the *Harmonielehre*. Now let us study Schönberg's harmonies in practical composition. In his earlier works he employs unusual forms of ninth chords, fourth chords, etc. But for his later music these formulæ are no longer suitable. So he

refers his harmonic structures entirely to the melodic content, a sort of contrapuntal harmony. For as he says, "The mutual saturation of these two disciplines, harmony and counterpoint, is so complete, their distinction or separation so incomplete, that every result derived from voice-leading may be a harmony, and every harmony may have its foundation in voice-leading. Apparently we are turning to a new era of the polyphonic style, and chords will be the result of voice-leading, justified through melodic content alone. Some day we shall recognize in the harmonies of the most modern writers today the laws of the older period, only in a broader and more universal application."

He follows no chordal schemes except those prompted by the disposition of the twelve-tone series. A summary of his harmonic practices might read as follows: (1) In general, there is an inclination, in the use of six-or-more-tone chords, to soften the dissonance through a wide separation of the individual tones. (2) Sometimes the separated groupings of the tones of such chords are so placed as to be easily traceable to simpler forms; they might be the combination of two simple chords. (3) The succession of such chords seems to be determined by the tendency to introduce, by means of a second chord, the tones that were not present in the first and which are usually adjacent to those of the first. These principles apply to compositions written before the adoption of the twelve-tone series, as well as after this technic was developed. Doubling of tones seldom occurs (octaves) probably because the doubled tone would predominate over the others and become a sort of fundamental tone. Final harmonies of cadences are always diversified in a Schönberg composition. Just as the old fugues were written with a different cadence at the end of each exposition, so the cadences of a Schönbergian composition never have the same bass note or chordal construction, except, of course, where a reprise is intended.

#### Counterpoint.

In his teaching of strict counterpoint Schönberg is most rigid. He follows Bellermand in general principles and in the use of the church modes, but differs from Bellermand as to melodic construction, application of major and minor modes and modu-



lations. The pupil creates his own *canti firmi*, canons, themes, etc., and uses the fifth species throughout after the others have been mastered.

#### Instrumentation.

Schönberg holds that a score must be "transparent," i.e. not redundant, every voice and every note serving a definite purpose. He says, "Pauses always sound good." They are frequently applied for phrasing and for setting off the individual voices. Every voice should have its definite entrance and cadence. The various voices of the score in their harmonic, thematic, rhythmic, accompanying functions, must be allotted their particular registers in order to avoid mutual interference. Doubling of voices may be allowed for dynamic purposes or for color. The dovetailing of parts (the entrance of one voice simultaneously with the exit of another) and of rhythmic phrases is especially to be recommended as it keeps a composition moving.



Schönberg's Master-Class at the Berlin State Academy of Fine Arts is a marvelous experience to any participant. I attended it as one of thirteen students drawn from all parts of Europe and America. We presented our works for criticism, first to each other and then to Schönberg who reviewed all our judgments and then added his own observations. The conflict of opinions was often spirited, at times even personal, but most instructive. Frankness and honesty in fearless expression remain the heritage of Schönberg to his disciples.