

MODERN MUSIC

SCHÖNBERG'S NEW STRUCTURAL FORM

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IT is really dangerous to discuss Schönberg's technic of composition; attention is too easily diverted thereby from the main thing, from the living resounding music. The catchwords, "atonality" and "twelve-tone music" have been picked up by many who are thus led no closer to Schönberg's art. Technical knowledge is not essential to the enjoyment and appreciation of music. Technic should be only a servant; even with Schönberg it is nothing more. It serves him in presenting his musical ideas in his own fashion; his technic of composition is his mode of self-expression.

The difficulty of his art lies in another field; it is intimately related to his personality. He is a man who can observe the world only with his own eyes. Everything presents itself to him as new, seen for the first time, and as if it had never been viewed by any other. Despite this he is not without traditions. He respects the old masters, but not because they have been designated as worthy of reverence. What he learned from them was by his own observation, not in schools but from the works themselves. Such learning is not to be found in treatises on composition; it does not consist of the letter of rules, but is the spirit of art and the spirit of its laws. Schönberg's music contains no commonplaces, none of the average musician's platitudes, no ideas which can be completed by anyone who knows only their beginning. His thoughts are new, unfamiliar and therefore difficult. But he who undertakes to penetrate this realm is richly

rewarded by its depth and beauty and by its brilliant spirit.

Such new ideas, however, demand a new musical language, and thus we meet the auditor's second difficulty, a difficulty which is purely physiologico-acoustical. The ear cannot apperceive the unfamiliar dissonant sounds and, since it is unable to assimilate the parts, it cannot comprehend the whole. But this difficulty can be overcome by repeated hearings. It is advisable for the listener to follow the very road Schönberg took in his development. A thorough knowledge of the *Kammersymphonie* soon leads to understanding of the *Second String Quartet* with voice. A subsequent intimate acquaintance with the Stephan George songs, *Das Buch der Hängenden Garten*, eases the approach to the *Piano Pieces*. The peculiar musical flavor of *Pierrot Lunaire*, its tonal fascination, is more truly perceived if we know Schönberg's earlier works. And from here on we are in the full tide of that music which, because it does not actually employ the major and minor keys, has been erroneously termed "atonal."



The works we have mentioned, and others representing the middle period of Schönberg's art, throw into relief a problem of paramount importance for the development of music, namely that of creating musical forms in a tonal system to which the old keys are alien, the problem of linking smaller segments into a continuous, well-knit whole in such manner as to be intelligible to the musical ear. Schönberg's solution was to establish, as it were, a special key for each individual composition. This is to be taken, of course, with a grain of salt. For they are not keys in the usual sense, that is, keys built on a basic or fundamental tone. Nevertheless the tone-series serving as foundations to Schönberg's work fulfill functions similar to and, in some degree, identical with the old tonalities, the most important of which is to secure unity in movements of length.

Schönberg himself calls his method "composition on the basis of twelve tones related only mutually," meaning that in his music the twelve tones of the chromatic scale enjoy equal rights, that

none of them is a main or fundamental tone. The technic of operating with them changes from work to work. The development of the twelve tone system is clearly demonstrated in the *Klavierstücke*, opus 23, and in the *Serenade* for seven instruments, opus 24.* From Schönberg's latest works, therefore, we may deduce the following principles: the tonal material of a composition is a *series* of twelve tones, borrowed from the chromatic scale and grouped in a special arrangement. In works of several movements the same series prevails throughout the whole. The word "series" is by no means identical with the idea of "theme;" it is as little related to the latter as the key of C major to the principal theme of a symphony in C major. The series is to be considered rather as a tone-complex, whose successions and intervallic relations always recur, though in manifold variations and combinations. It determines the melodic and harmonic structure of a composition. Besides the basic form, the series also regularly appears in three typical transformations. One, inversion of the series, that is, exact transference of its interval steps upside-down; two, crab-like counter movement of the series, that is the retrograde motion from the last tone of the series back to the first; third, inversion of the crab. These transformations modify the melodic physiognomy but do not alter the harmonic structure. The interval relations remain the same.

As an example we may quote the series, with all its transformations, to be found in Schönberg's *Third String Quartet*, opus 30. (It should be noted that the series at this point is still rhythmically amorphous.)

The image displays four musical staves, each representing a different transformation of the twelve-tone series. Each staff is numbered 1 through 12 above the notes. The first staff, labeled 'Series', shows the original sequence of notes. The second staff, labeled 'Inversion', shows the series with intervals mirrored. The third staff, labeled 'Crab', shows the series in retrograde order. The fourth staff, labeled 'Inversion of Crab', shows the retrograde series with intervals mirrored.

The principal theme of the third movement is as follows:

* I take the liberty of referring, on this point, to my essay, *Neue Formprinzipien*, published in the anthology, *Von Neuer Musik*, Cologne, Marcan Verlag, and in the *Schoenberg Heft* of the Viennese periodical, *Musikblätter des Anbruch*, 1924.—E.S.

The musical score is in 9/8 time and marked "Allegro moderato a)". It consists of two staves. The upper staff is in treble clef and contains a melodic line. The lower staff is in bass clef and contains an accompaniment. The melody begins with a series of notes: D, E, F, G, A, B, C, D. The accompaniment consists of chords and single notes that support the melody. The score is written in a clear, hand-drawn style.

Up to the note D of the third measure the viola plays the series in its original form; with the note E sharp (F) we begin the inversion of the crab. Thus the series plus the inversion of the crab furnish the tonal material for the principal theme. The material, however, really emerges as a theme only through its rhythmical division and through the development of motive *a* in the succeeding measures. This development occurs precisely as in classical music; the theme forms a period of six measures which, so far as its structure is concerned, could be attributed to Mozart. A striking feature to be observed in relation to the leaps in the theme is the fact that the position of the tones within the octave is not rigidly fixed by the series. A tone succession forming a minor third appears at times as such, at others as a minor tenth, in a third instance as a major sixth. This alone shows how little the profile or line movement of the melody is restricted by the series. Later we shall consider other factors which facilitate a perfectly free melodic development.

In the accompaniment of the theme by the second violin and cello we have the series in vertical order. At the same time we note that the repetition of tones imparts a certain lightness to the movement which thus escapes the rigidity implicit in a strict observance of the order of the series. The accompaniment opens with the last four notes, B flat (second violin), C sharp (cello), A flat (second violin), D (cello). In the next measure the first four notes follow in a similar arrangement: E, G, D sharp, A; in the third measure the order changes: C (cello), F, F sharp (second violin), B (cello). In such vertical com-

binations the disposition of the tones in the separate parts is generally handled with considerable freedom. This kind of treatment is obvious in the continuation which utilizes, as the theme does, the inversion of the crab. Again a beginning is made with the last four tones. And here also we may deduce a principle which is frequently demonstrated: when the series or its inversion appears as melody, the accompaniment exploits the more remote tones of the series, thereby erecting a definite musical complex (melody plus accompaniment) on the basis of the twelve tones before the melody is completed.

The beginning of the second movement shows the series in the form given below:



The series occurs in a two-part setting given to the first and second violins. In addition we have a counter-melody played by the viola which reiterates the same form, solo. The two-part setting dominates the whole movement as its formal principle.

At the end of the movement we meet several interesting forms, which may be studied in the illustration given on the next page. The twelve-tone series is divided here into three groups. In the opening measure, cello and first violin share the first four tones, the second group of four appears in the *staccato* accompaniment of viola and second violin, the third group again reverts to cello and first violin. In the second measure there is a similar arrangement which employs not the series but the inversion of the crab transposed a whole tone below. Such transpositions occur frequently, especially in transition passages. The first half of the third measure contains the series, the second half its inversion. The grouping is similar to the former version; the four middle tones are played by cello and viola, the first and last tones appear in figurations of thirty-seconds by the two violins. In the fourth measure the distribution becomes more complex. The first tone of the series, G, is in the cello part, the

second and third are repeated by the viola; on the fourth the first violin enters with the main part, but the continuation is led by the repeated figure of the second violin (C, F, F sharp; that is, the fifth, sixth and seventh tones of the series). The eighth, tenth and twelfth tones constitute the continuation of the first violin part, the ninth and eleventh are again allotted to the second violin. The last two measures form a unit, the close of the movement, a completely worked out *ritardando*. Here we discover again all three groups of four tones, representing the inversion of the series. The bass and the figuration of the accompaniment by the viola constitute the first group, the repeated *pizzicato* of the second violin (G, D, D flat, A flat) produces the second, the third is in the last notes of the first violin:

The musical score consists of three systems of staves. The first system includes Violin I (Vc I), Violin II (Vc II), Viola (Vc), and Violoncello (Vc). The second system continues the instrumental parts. The third system shows the final measures, ending with a double bar line and a fermata. The score includes various musical notations such as slurs, accents, and dynamic markings.

More important, however, than all these combinations of the series is the fact that the movement as a whole is a beautiful

piece of music. Especially poignant is the tender mood of leave-taking in the conclusion.

It is apparent from this last example that the restrictions of the series still permit ease of composition and, in particular, do not impede the melodic flow. As a matter of fact any tone succession is possible, if the other parts in some way furnish the complement. This is most strikingly emphasized in the *rondo* theme of the last movement:

Here every measure contains the complete series; the first has the basic form, the second the inversion, the third the crab, the fourth the inversion of the crab. As the tones are allotted to all four parts in varying arrangements, a free and unrestricted part writing is made possible. Thus the theme may unfold in a motif development, it may repeat tones during its course, the secondary parts may carry out a definite scheme, and the bass may strike the tone C twice in pedal-point fashion. The division of the tones in the various parts can be grasped by the reader without any difficulty. But he must be careful to observe that the order follows a certain system. The first note of the series in question is held longer, in the first two measures by the second violin (with the up-beat), then by the cello which takes over the part of the second violin in the second measure and surrenders its own part to that instrument. The distribution of the tones changes accordingly. Second violin and viola lead the

first motif of the theme through the third and fourth measures. This requires a slight rearrangement of the corresponding form of the series. The last tone of the third measure, B, already belongs to the fourth measure as an up-beat. On the other hand the same tone figures as the second of the series (inversion of the crab). The first F takes the second place and, together with the third F sharp, makes the repetition of the *ostinato* motif in the viola part. The tones in the second violin part are likewise shifted. Such remodeled groups are not rare, occurring most often in those places where another striking principle of form appears to assure the impression of coherence. This is obvious, for instance, in the third movement of the *Quartet*, which is dominated by an *ostinato* eighth-note figuration. The recurring *ostinato* figures are derived from various sections of the series; the other parts employ the remainder, often in a very free arrangement.

The use of the series has been demonstrated here by the aid of a few simple examples. The process is of course often much more complicated. Even in this *Quartet* there may be found several variants of the series, other than those quoted, which are achieved by shifting some of the tones. At times the series begins in the middle, at others its various forms are combined. It is obvious that Schönberg tries to build his series in such a way that all the transformations will retain resemblance to the fundamental form. This plasticity not only permits an easy melodic and harmonic creation but makes possible the manifold varying relations and combinations of such musical ideas as spring from a Schönberg. We can find tones or successions of tones that belong simultaneously to two series. There are passages which we can study for hours to discover the underlying principles of their form. But after all it is not these technical details that are so important. The point is to listen to this music and train the ear to understand it.