

Roy HARRIS, a sketch by ANNA MATYAS LAHMER

## THE HARMONIC IDIOM OF ROY HARRIS

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THE output of Roy Harris, as it continues to grow in volume, is marked by a technical skill that indicates a thorough control of his medium for the purposes of versatile expression. His mastery of form, his skill as a contrapuntist, his brilliance as an orchestrator and the personal eloquence of his writing manifest themselves in separate and highly individual techniques. But the germ of his style and of his whole attitude toward writing appears to be in his harmony. Because it is direct, it is deceptive in its apparent simplicity and, despite its orderliness, elusive.

Harris has always accepted tonality as the basis of composition, and polytonality as an intensification of the principle of tonality. His linear materials are based on the diatonic scales and their combinations, his harmonic textures on the major and minor triads, their inversions and combinations. His problems have been those of evolving concepts of tonal relations to augment conventional procedures of harmonic progression, and those of building a working system of harmonic polytonality.

The first of these concepts is concerned with the functions of harmony, which Harris divides into three. First, there is the function of providing mass resonance. Here, harmony poses problems of density, concentration, registration and voicing. In his own writing, Harris tends to reserve the greatest density and concentration for the upper voices of a given harmony, while the lower registers are composed of larger intervals. His harmonies are, therefore, built in layers, defined by relative density, and in complex harmony by polytonal organization, which will be discussed later in some detail.

The overall size of a harmony – the volume that it fills, the number of separate voices employed, and the proximity of those voices to each other within the vertical structure – determines its position in a moving form, the speed with which it moves, the distance that it may progress, and to some degree the dynamic at which it must sound. In a Harris quartet, which by nature of the medium is limited both in dynamic and in harmonic concentration, the harmonic structure moves quickly through bright and dark textures, and the harmonic progressions themselves are often quite extreme. When dealing with heavier textures, as in the Pastorale section of the *Third Symphony*, the process is reversed. The harmony progresses deliberately and is much more complex vertically than it is horizontally. In this section, one may again observe a correlation between the gradual dynamic increase and the increase in the number of voices employed – a principle basic to Harris both in his harmony and in his orchestration.

A second function of Harris's harmony is its use for the inflection and modification of melodic line. When teaching, he makes a practice of harmonizing a given melodic idea (perhaps only a scale line) a dozen ways in straight triads: first in majors alone, then in minors, then in mixtures of the two, going from bright to dark, reversing the direction, to bring out every implication of the line itself. In applying this procedure to his own work, Harris has concluded that a harmonization should be used which most eloquently underscores the linear materials. He feels that a composer who has been unable to realize the harmonic requirements of this thematic substance has significantly failed. He believes the color values and emotional implications are precise, that they can be charted in a graduated scale.

This attitude has roots in such musical evolutions as the masses of Orlandus and Josquin des Prés, or in the chorale treatments that grew out of the Lutheran service. It is profitable to compare a work like Harris's Fourth Symphony (*Folk Song Symphony*) with such a work as the Bach Cantata Number 4 (*Christ lag in Todesbanden*), to see how, in both, large and complex structures are built on rather simple folk materials. While the materials involved would naturally produce very different results the procedure in each case has been fundamentally the same: the application of harmonic and contrapuntal invention to a cantus firmus in such a way as to realize even its most obscure implications, without perverting it into something which it is not.

It is valuable also to compare the Folk Song Symphony with Der Schwanendreher by Hindemith, or Bartok's popular Improvisations, Opus 20. While these composers have produced coherent and original structures in which traditional materials have been employed, they have done so at the expense of the materials themselves, which have been put into harmonic textures foreign to them, in no sense implied by them, from which they

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do not receive support; their value is determined by harmonic, contrapuntal and formal evolutions which would undoubtedly have existed and been quite as effective had other materials been used. Checking the Harris work against those of the other men makes it easier to understand his use of harmony for the modification and inflection of melody.

An important corollary to this aspect of Harris's harmony is its application in his contrapuntal works. Harris thinks of counterpoint as the movement of melodic lines through an harmonic texture. In writing polyphonically, the inflectional problem is expanded, so that the composer qualifies not the meaning of one line, but of many, and the separate voices in their interplay modify each other not only by each other, but by the harmony which they together produce. In his counterpoint as in his harmony, Harris places his upper voices in such a way that they are supported by the overtones of the lower ones. In a Harris fugue, voices are never covered up or made inarticulate by the others. His *Third String Quartet*, one of his finest works, is a study in canon and fugue, and may be cited as his contrapuntal creed. This example is a fragment of a structure in which melodic line and harmony are formed with equal care.\*



The third function of harmony in the Harris idiom is perhaps a fusion of the other two: it concerns the use of harmony for purposes of architectural definition. The use of harmony for projecting form not only presents problems of cadence, but also involves color and color evolution, expanding and contracting volumes of sound, a changing number of voices, variations of harmonic density, changes of registration, and harmonic progression. The harmonic evolution of the *Third Symphony* parallels the growth of the form itself: it begins with a single line in the middle-low register, then expands to a simple organum harmony, and grows to a

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<sup>\*</sup> Musical illustrations from Harris's Third Quartet and Fifth Symphony by permission of the copyright owners, Mills Music, Inc.

richer fauxbourdon triad treatment, becoming always more concentrated, more heavily scored. Over a rich texture of constantly moving polychords, a set of variations progresses from woodwinds to brass, as the harmonic volume expands and becomes constantly brighter and more concentrated, breaking into the fugue. A contrapuntal development is introduced into the complex polytonal harmony, which becomes darker as the rhythmic development reaches its greatest complexity, after which the harmony becomes tighter, the register lower, and the work resolves – to a single triad. The *Third Symphony* is an accessible and clear example of this principle, basic to all of Harris's output and manifest to a greater or lesser degree in any of his works.

Cadence is, of course, basically an harmonic problem, and nothing is of greater importance in defining the growth of a form, in giving it breath and in sustaining it. The modern composer, searching for new techniques for establishing the sense of cadence without resorting to the worn-out IV-I or V-I procedures or the equally unsatisfactory dissonance and resolution pattern, finds himself facing one of the most fascinating and inexhaustible harmonic problems that his art can pose. Harris feels that the greatest wealth of harmonic invention should be saved for the cadence. Analyzing the cadences of the great Bach organ works, in which remote and even savage dissonances follow each other over an organ point to their final resolution, or the almost quixotic introduction of chromaticism at the cadences of the Gesualdo choral works, or the brilliant and wild melodic and rhythmic intensification at, for instance, the end of Sweelinck's Chromatic Fantasy for organ, Harris has observed that the body of musical tradition before the rococo period was a tradition of complex and inventive cadences. The application of this tradition to his own work has resulted in a merciless intensification of his own expression at the point of conclusion. This cadence is from the third fugue of the Third String Quartet.



Here, using only simple harmonies but with apparently remote relationships within a quickly contracting volume, Harris has succeeded both in attaining a sense of finality and in establishing a definite mood quality for his close. The technique upon which this cadence is built is made up of two concepts and the procedures inherent in them: one of them is a system of harmonic progression, the other the scale of color values to which we have referred before. The scale for complex harmony is generated from the scale of primary colors, the relative values of simple triads.

Assuming that the brightest and darkest simple harmonies are, respectively, the second inversion major and the second inversion minor, and that the same harmonies in root position are less intense, Harris finds the first inversion of a minor harmony brighter than a first inversion major. This is because of the overtone series generated by the lowest note in the harmony, which is always the strongest series generated, and which Harris considers the determining factor in establishing tonality. He would feel, for instance, that the first inversion of a C minor triad would have much of the quality of  $E_b$  major, owing to the close relationship of the fundamental  $E_b$  and the G, the fifth of the triad, but its own major third. Consequently, he would probably treat the harmony as he would an  $E_b$  major chord. It is partly because of this that it is impossible to analyze his harmony by root progressions.

Although his progressions often seem remote, Harris maintains a strong sense of tonality in his work. This is because the progressions are determined not only by the inflectional potentialities of a given linear idea but also by a very precisely calculated concept of tonality relationships, which assumes that a given root is equally close to the triads on its dominant and subdominant, the triads on its mediant or lowered mediant, and the triads of which it serves the function of major or minor third. This system gives any triad direct access to triads on six tonal centers, and through the parallel set of relationships through the dominant and subdominant, close relationships to every tonal center except its own tritone, as illustrated in the following chart.



By this system, the major triad on the lowered supertonic is reached

through the subdominant, the minor triad on the supertonic through the dominant and the subdominant, the major on the supertonic through the dominant, the major triad on the lowered mediant and the minor on the mediant through both the tonic and the dominant, the major triad on the mediant through the tonic itself, the majors and minors on the lowered submediant and the submediant respectively through both the tonic and the subdominant, the major and minor triads at the lowered seventh through the dominant, and the minor triad at the seventh through the dominant, which, added to the majors and minors of the tonic, dominant and subdominant themselves, gives any root easy, logical reference to eleven major and eight minor triads, and consequently enormous possibilities for inflection without losing a sense of tonality and without going into complex harmony. This line from the *Fifth Symphony* is a good example of this concept put to use.



It is one step from this procedure to its application in polytonal textures. Harris calculates his polychords with reference to overtones, and they are again conceived in terms of graduated color values, the brightest being derived from six-four majors, the darkest from second inversion minors. The upper triad is determined by the strongest overtones of the third or the fifth in the lower triad, although it may, of course, get additional support from other tones in the lower triad than the one from which it is generated.

The strength of a given polychord is determined by several factors. First, by the amount of support which the upper triad receives from the overtones of the lower one. Second, by the position of the top note with reference to the overtones generated by the lower triad, particularly the fundamental. It will be observed, for instance, that a G major triad above a C major second inversion will sound more brilliant if its highest tone is G, rather than D or B, as the high G is supported not only by its own fundamental, but by the overtones of C as well; the D sounded is a weak overtone of C, though a strong overtone of G; and the B, generated by the E in the lower triad, while it is supported by a strong overtone of the fundamental G, is less strongly supported by the E series, which, owing to its position in the original triad, is the weakest series generated. For considerations of relative color value, there are, therefore, three inversions of each polychord determined by the position of the upper triad, the intensity governed by the position of the top note.

The third factor is the relative color values of the actual triads combined. If a harmony consists of a major triad above a minor, it will be darker than a harmony in which a minor triad has been built above a major. This again is, of course, determined by the overtone series generated by each note in the lower triad and the resultant support and conflict with the upper triad.

In the following chart, I have organized the basic polychords which, by this system, are built from the strong overtones of C major and C minor with their inversions.



While the above chart is incomplete, it does constitute a nucleus for this kind of harmonic thinking. I have attempted to organize it in a graduated scale from very bright to very dark, and this is, of course, a subjective process. Although all of the harmonies in it have immediate practical values and are to be found in Harris's textures, those derived from the first inversion major are limited and occur less frequently than the others.

In addition to these harmonies, in which every high sound is supported by an overtone of a lower one, Harris uses polychords built upon the same principle, but once removed. Instead of being a realization of the overtones generated by a lower triad, the upper one is based on a close harmonic relationship to the lower one, so that one of the original tones, repeated at its own octave, becomes the major or minor third, or the fifth of a triad which it does not itself generate. Thus, above a second inversion of C major, one may find a second inversion of D major; or above an  $E_b$  major triad in root position, there will be a C major triad in its second inversion. In his more recent works, Harris tends to make use of harmonies in which chords in fourths have been built above fauxbourdon harmonies.

The building of harmonies on this principle is a personal problem,

with larger implications than any style. Because of their similarities, Harris uses both the basic polychords and the more remote variety in the same texture, as is illustrated in this passage from the new suite, *Memories of a Child's Sunday*.\*



The concept of texture is probably the most important of all the considerations of Harris's harmony. He very rarely uses sharp contrast, and although the intensity and complexity of his harmony naturally have great variety within the course of a major work, that variety is usually the result of an evolution which covers minutes rather than measures.

Harris considers any harmony which is derived from the overtone series of one of its strong fundamental tones to be consonant. As a consequence, the progressions of his polychords, composed as they are of overtones intensified, are determined in the same way as are those of simple triads.

This study must, by necessity, be fragmentary. It is my understanding, however, that Harris himself is at work on a thorough exposition of the same problem, which will be published in a few months in book form.

\* Musical illustration from Memories of a Child's Sunday by permission of Carl Fischer, Inc., copyright 1946.