

SPACE AND TIME IN MUSIC

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I

SCHOPENHAUER described music as externalized will, and the world-weary philosopher had just enough truth in his conception to prove the point to his own complete satisfaction. It is true that music is something like thought (or will) stripped of content since through this medium it is possible to express the laws of the first forms of consciousness. The interaction of space and time is given in every phase of existence, but unity, harmony, and rhythm, the three essentials of art in any form, are seldom present in the right proportions in everyday occurrences.

Unity, harmony and rhythm are the fundamental principles of all the arts because they are inherent in the categories of sense. They cannot be dissociated ultimately in any art, but the difficulty of analysis into these elements is greater in music than it is in the static arts of painting, sculpture, and architecture. The unity of music is melody, a dynamic principle. Mme. de Staël once spoke of architecture as "frozen music".

The combination of melody, harmony, and rhythm into definite forms is what the word "music" means. Melody is the succession of harmonious tones governed by rhythm. Rhythm is the harmonious repetition in metric units of fixed sound relations. It is not always realized that harmony may mean not only counterpoint where the value of each tone is enhanced by the ensemble in a new creation—"out of three sounds . . . a star"—but also the natural development of the tones in their melodic progression. At any rate, each of these principles necessarily involves the others to a high degree.

When Plato reports Socrates' comment on the relation of philosophy and art: "Philosophy is art at its noblest and best", he im-

plies that the highest thought, truth itself, possesses unity, and harmony, and rhythm in its content. Music by its sensuous reproduction of these elements shows us their pure beauty as forms. The business of art is a much debated question. If its *raison d'être* is to portray qualities the most universal, then music is the highest type of art: for the musician's purpose, whether he realizes or even recognizes it or not, is the adequate expression of the primitive universals, space and time. He does this with the least possible content. The simplest unit in music is composed not of judgments but of bare qualities. Though dual balance extends in phrases and periods throughout the composition, and though musical and rhetorical constructions are closely akin, the true music lover does not enjoy music that suggests a story. It is not only unnecessary; it is strictly undesirable. "Tastes sweet the water with such specks of earth?"

II

It is but natural that music should have evolved with men's thoughts. Music is an art—not life, but its reflection. In a cross section of all thought, as of all music, every sort and condition of both, from the most elementary up through evolutionary processes to the noblest, would be shown. As unity, harmony, and rhythm are more and more completely proportioned, thought evolves, and with thought, music. In savage tunes, rhythm whose biological significance gives it unique power over the emotions, is the one element of importance. In dance tunes and popular music, rhythm still overshadows harmony and melody, though not to the extent that it does in primitive mumbo-jumbo. Rhythm is an important element even in the most artistic music where it directly controls the mood. Melody which obviously introduces the thought element is equally essential. Harmony, showing as it does, the mingling and blending of many tones to the enrichment of the melody, shares honors with the two former principles.

The only thing approaching consciousness-content in musical symbolism is in the moods instinctively influenced by rhythm, and indirectly affected by other agencies such as timbre, pitch, and volume, as well as by the progressions in the major and minor modes. While it is certain that these characters of music stir the emotions, it is equally true that the emotions are left unattached. The value of music in organized worship for example is in its preparation of the devotee for whole-souled participation in the services.

The universality of the dramatic and aesthetic appeals in this art can be readily explained by its pure presentation of the first forms of consciousness. If rhythm is the element primitive in musical evolution it is because in rhythm appears the first drawing together of space and time toward mutual transcendence. I hope that my later explanation will make this point clear.

Sidney Lanier's definition of music is often quoted: "Music is love in search of a word." In saying this the musician-poet spoke more truly than he knew perhaps, or than the many who accept his definition know. Love needs expression as form cries out for content. Gurney in his *Power of Sound* describes melody as "ideal Motion", which also appeals to lovers of pretty phrases, and he, again, defines exactly. Melody expresses, as no other sensuous representation can, the form in which ideas live and move and have their being.

Poetry, on the other hand, seeks to combine the reproduction of thought-forms, as given in music, with thought content. If it succeeds in the first and also in making the correct proportion of these elements in the second case, the result is philosophy in poetic form. By a confusion of categories, philosophy and poetry are frequently mistaken for one another. Heine, Swinburne, and Poe are great poets, but as philosophers they cannot be counted great even though the music of their words often makes attractive, where it fails to conceal, banality of thought. When Wordsworth said that "Poetry is the breath and finer spirit of all knowledge; it is the impassioned expression which is in the countenance of all Science", he was thinking of philosophy where the thought itself moves in unity, harmony, and rhythm, and not of the mere sensible expression of its form.

III

From Plato to Professor S. Alexander, space and time have been important considerations of every philosophical system. To Spinoza they are attributes of substance. Kant's *a priori* contention for these categories of sense is almost as famous as his categorical imperative. All the sense organs give some idea of these forms, but the ear which analyzes and synthesizes at the same time is the only one that can properly present space and time. Many otherwise profound philosophies (among them Cartesianism) have been found wanting because the less perfect representations of space and time supplied by other senses, particularly that of sight, confuse aural

counsel. Without the auditory sense it is even possible that these phantoms would never have arisen either to haunt us with their elusiveness, or to be known for appearances that spell reality.

It is interesting in this connection to note the attempts that have been made to express the musical idea in terms of color. Though color and tone each indicate mere quality presence, the endeavor to interchange the two cannot succeed ultimately. A psychology student told me that it was impossible for her to think of color except in terms of something more ultimate. She felt that it was a weakness on her part which cultivation of the "clavilux" or other experiments of color as music bade fair to correct. It is the sense-medium for color that not only makes it impossible to make a melody of it, but also makes the student's experience of the subservience of color a common one. Color does not seem like tone to exist for the sole sake of its beauty. If it were possible in a mixture of colors, as it is in one of tones, to get the effect of a new combination without losing the individual characters of the components, then red and C major would have something more in common than the reduction to mere numbers of vibrations per second. A trained ear is necessary to distinguish different tones. The eye though trained a lifetime could not see the pure colors in a mixture. The crux for the colorist lies in the fact that there is not the perfect whole possible in succeeding color effects that there is in succeeding tone relations.

The frequency and amplitude of the vibrations into which a tone may be divided determine respectively its pitch and volume. Different tones, without which melodic succession is impossible, are due to variations in the tonal limit. This is as certain and fixed as the plan and purpose of the musical composition as a whole. To abstract one tone from the composition, however, and to study it in its own terms of boundless simultaneity and unchangeable quality, is to be confronted with the sensible expression of meaningless, bare space. But space and time are equally original, and one is unintelligible without the other. This is shown in the tone, taken in the musical composition, to the degree of making space and time interchange attributes. For when through tonal succession occurs grouping with extension and diminution of tones to accord with rhythm necessity, the tone pattern in the composer's mind, space becomes time, and time, space. The tone, released from its frozen condition, flows in a stream. It loses itself only to find itself, and

though boundaries are continuously being made, they are continuously transcended. Past and future are kept together with the present. There is a flow of units which owe their individuality to the conditioned flow. Swinburne, speaking of music in his "Triumph of Time", portrays this changing, abiding quality:

"..... a note grown strong
 Relents and recoils, and climbs and closes,
As a wave of the sea turned back by song.
 There are sounds where the soul's delight takes fire,
 Face to face with its own desire;
A delight that rebels, a desire that reposes". (Italics mine.)

The superiority of the violin as a musical instrument is partly due to the smooth flow of tone it gives where one note grows into the next with no discreteness.

The principles: melody, harmony, and rhythm, are of neither space nor time, but are the result of the perfect interaction of the two. The sense expression of bare space may be given in the single tone because here is found just enough content, and no more than is necessary, to give concreteness to the form. To express mere time sensibly as unmeaning succession, abstracted from all but the minimum qualification, is likewise possible, as for instance, by the metronome. Time is no more active than space in music though it may appear to be. The mutual transcendence of the forms in this art is immediate. If Mozart once dreamed, or imagined, that he heard a still uncreated symphony, complete in melody, harmony, and rhythm, in a single moment, and afterwards transcribed it just as the inspiration had come to him in an instant of time, what the composer felt was the change of space to time, and time to space, in the peculiar expression given by this particular composition to his fecund imagination.

IV

Space and time appear in music as limitless for limits. Melody, harmony, and rhythm result when the forms are in process of self-circumscription. The limit is not given from without but is present in space and time as the necessary Other of limitlessness. Music is the affirmation of freedom of the first forms of consciousness, and its value and beauty are found in the proportion of its true presentation of the laws governing every expression of being.