

SPECIAL SECTION: ARTICLES, REPORTS, AND REVIEWS ON MUSICOLOGY AND MUSIC EDUCATION

Introduction: Musical literacy and the teaching of music in school, college, and university

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APPRAISALS OF THE RELATION BETWEEN THE MUSIC EDUCATIONAL ESTABLISHMENT from grade to graduate school and the culture at large should take at least cursory note of John Kenneth Galbraith's warning that education is being shaped more than we realize by the needs of modern industry. This would seem to be as true of music as of other sectors of the cultural economy. Industrialists admire soaring sales, educators value the utility of their instruction, and the two motives tend to reinforce each other to give the impression that music in America is in a state of hurtling progress. A few months ago, Howard Taubman observed in the *New York Times* that LP disks, hi-fi, and FM have helped to make "millions musically literate." While no one doubts that electronic mass production of music has transformed our auditory environment, there are others who argue that it has instead degraded listening habits. But let us turn from the ambience to the questions raised by the phrase "musical literacy."

According to the *Oxford Universal Dictionary* "literacy" is a late 19th-century form of the much older adjective "literate," which, since the 16th century, has meant liberally educated or learned. With the new form was associated a new meaning considerably less elevated than the first. Presumably because education is no longer a prerogative of the ruling classes, "literate" and "literacy" could now also refer to the ability merely to read and write.

Language and music are too diverse for the notion of literacy to be transferred uncritically from one to the other. The respective modes of operation, logics, and cultural functions are so different as to rule out simple analogy. It is sufficient for the purpose of this discussion to maintain that in the primitive sense literacy in a given musical tradition depends on the ability to make auditory discriminations among the musical sounds that constitute the utterances of that tradition. Whichever the musical community (rural, urban, popular, elite), whatever the individual's role (composer, performer, listener, thinker), auditory perception is the prime condition of musical literacy.

Transference of the notion of literacy from language to music has encouraged music educators to overrate reading and writing musical script at the expense of developing auditory perception. Students are too often drilled in the notational system of a limited tradition instead of learning the aural and memorative capacities needed for a wider range of musics. Exaggerated deference to the written note underlies the *Urtext* fallacy (the notes are the music), the elaborate role notation plays in some contemporary compositions, and also the tendency to teach notation symbols before the sound relations they represent have been unmistakably perceived. Undue reliance on notation induces atrophy of the ear and disperses the function of script from musical description or prescription to include that of hearing-aid. If script is to play so large a role in literacy training, it must be explained that notation is a peculiarly Western invention, that drastic changes in the relation between musical sound and written signs have occurred and are still occurring, and that the script-sound relation of the 19th and early 20th centuries is no longer a musical *sine qua non*.

The Contemporary Music Project (described under Reports) has recently launched a broadly-conceived and intensive program designed to improve "comprehensive musicianship" at the college level. Comprehensive musicianship is defined in the Project's brochure as "incorporating conceptual knowledge with technical skills to develop the capacity to experience fully, and the ability to communicate the content of, a musical work." The "technical skills" include aural training, composition, and performance, where aural training is the ability to understand the structure of sound, to conceive musical sound from its notation, and to demonstrate the understanding of musical structure through musical notation, verbal report, and performance. While the importance of script is maintained, aural proficiency and a focus on the musical utterance are paramount. Let us conclude, then, that basic musical literacy includes aural skills that cannot be achieved by casual listening. The arsenal of sound reproduction devices and an expanded repertory of recorded music will affect real musical literacy only after auditory proficiency has been secured.

If the war against literacy in language may now be regarded as nearing its terminal phase in America, the equivalent battle in music has scarcely been joined. Sceptics might insist on the absurdity of comparing language with music in this regard, since the cultural functions of the two systems seem completely distinct. They might also argue that musical literacy could never be widespread in as linguocentric a culture as ours. But the previous condition of music in our culture need not necessarily set the limits of its future role. Music may have a hitherto unsuspected importance in the cultural mix of the anticipated leisure society. It is already acknowledged as the prime means of training perception and judgment in one of man's most highly developed senses. Since computer technology now provides educators with the means of teaching large numbers of people aural skill with unprecedented efficiency, it may well be that the only serious deterrent to a more vital musical culture is the present notion of what music's role should be.

Educators are increasingly concerned with the conceptual foundations of fields of knowledge and are correspondingly minimizing the learning of large bodies of fact. In responding to this important development by stressing the

conceptual side of music, educators will need to recall that learning music, unlike learning mathematics or philosophy, requires the education of a sense-organ. "Percepts and concepts interpenetrate and melt together, impregnate and fertilize each other. Neither, taken alone, knows reality in its completeness. We need them both as we need our legs to walk." So writes William James. An individual's ability to conceptualize is limited by his ability to discriminate the relevant sensory data. A greater role for music in our culture depends as much on cultivating auditory perception as on teaching the intellectual basis of the art and discipline of music.

Let us consider now the one music course required in general education (whether in primary school, high school, or college) that deals with musical concepts and literature. Often called "music appreciation," it usually treats the properties of musical sound, the elements of structure, simple notation, and functions such as melody, rhythm, harmony, and instrumentation. The course then proceeds to the study of selected "masterpieces" of Western music in regard to form, meaning, value, and historical context. The approach is evidently modelled on the "great books" notion that the liberally-educated person's intellect and imagination should be disciplined to understand the prime cultural achievements of Western man. But there is a critical difference between a course in, say, philosophy, on the one hand, and in music, on the other. The former presupposes that the student has a complete familiarity with the sign system by which the concepts of the discipline are conveyed, whereas the latter does not. The difference is immense.

Let us take, for example, an individual who is attending the first lecture of his first course in philosophy. He can already discriminate the phonemes and morphemes of the English language, and he probably knows the dictionary meaning of a large fraction of the words used in philosophic discourse. Since he also understands English syntax, we could say that he is literate in English and preliterate in philosophy. At the very outset he is prepared to learn the contextual meaning of the special words employed by various philosophers and to acquire a fund of philosophic concepts. He is equipped to discover the value and significance of philosophic notions, to judge the structure of a philosophic discourse, and to discern how a series of philosophic constructs can generate a tradition. Within a year he has gained considerable familiarity with the medium of philosophic ideas and has become at least partly literate in philosophy.

The student confronted by his first formal course in music is less fortunate. His perceptual skills may well extend to a fairly good apprehension of popular music, but his powers of musical conceptualization are probably nil. The vast majority has yet to learn how to discriminate the elements and constellations of elements that constitute sophisticated musical utterances of Western high culture. Nor is he sufficiently familiar with the articulative norms of the various art musics to grasp the functional relations, or to judge the esthetic qualities, of the sonatas, symphonies, and songs he is given to hear. At the present efficiency of teaching musical perception and conceptualization, it is too much to expect a student to achieve within a semester, or even a year, sufficient aural skill to understand fully more than a very few aspects of elaborated compositions. The low quality of auditory perception results, moreover, in the expedient of substituting concepts which the student can

grasp more readily for inherently musical concepts. The symbols and concepts that dominate music appreciation are in general only marginally musical, for they seem too often to be drawn from literature, esthetics, psychology, visual arts, dance, and history. This predicament is surely incompatible with the modern proposition that music means itself.

The low incidence of musical literacy would seem to contribute to the difficulty music has in establishing itself as a serious discipline throughout academe. The degree of literacy achievable in a medium limits the discipline, and hence the educational value, it can provide. If the student of music appreciation is unable to make the auditory discriminations required for any but the most elementary concepts of musical utterance, the instructor cannot encourage the stimulating and productive attitude of discovery learning, whereby a student starts with a musical question and seeks the musical answer on his own. Students cannot expect to have the satisfaction of arriving at an independent interpretation of a composition and of comparing it with his instructor's. Lacking the ability to put a musical question or discover a musical answer, he is constrained to accept the rhetoric of conclusions laid down in the curriculum. No matter how effective the instruction or how well-founded the judgments, the student does not acquire the musical fluency needed to transcend the curriculum. Nor is he able to take the essential final step of the learning process—the confirmation in practice of concepts that are to him as yet hypothetical. Music appreciation without intensive development of aural skills is less a creative intellectual inquiry into the meaning and value of a primary medium of human utterance than a passive and illiberal acquiescence in a set of marginally musical statements of fact and opinion.

The problems that face those educational reformers who are tackling the crisis of musical literacy raise fundamental challenges to musicological method and research as well as to educational theory and practice. It is possible that an awakening interest in musical literacy may even help reverse the trend that in the past has separated the two professions. The reformers are doing much to counter those heresies that in the past have generated so much musicological animus. Charles Leonhard of the University of Illinois, for example, attacks the still widespread "instrumentalist" doctrine that music education contributes to the health of the student and develops wholesome ideals of conduct, citizenship, and good work habits. He points out that these values are not unique to music and that many other areas of the curriculum are probably better suited to conveying them. Investigations of cognition and concept formation undermine the pervasive notion that, because one "learns by doing," musical performance is in itself the path to musical understanding. William C. Hartshorn, Music Supervisor of the Los Angeles City Schools, points out that just as technical skill in playing an instrument is not gained by reading about it, so musical understanding does not come merely from musical performance. The traditional assumption that the task of music education is to teach children the esthetic experience is forcefully attacked by Theodore R.Sizer, Dean of the Graduate School of Education, Harvard University. He writes that "'Art' in the sense of an esthetic experience cannot be taught in any systematic or predictable way," and charges that most schools favor the esthetic approach but with least chance of success. He recommends a ruthless pruning of art education to

disciplines of seeing and hearing, and avoidance of "appreciation" or assessment of esthetic values. Colleges are doing what the elementary schools could do handily; a systematic and carefully-limited course in literate perception could be completed, he maintains, by the sixth or seventh grade. Education in music and the visual arts should simply provide the tools for proceeding on one's own. Sizer's contention is supported indirectly by those who have in recent years attempted to specify how to teach the esthetic response. They ultimately confess to the complexity of the task and fall back on relaying the usual information about music.

Of the music educators directly concerned with the problem of musical literacy, Hartshorn proposes a pedagogy based on the premise that "what music communicates and how it communicates are one and the same thing." He insists that learning concepts of tone is the first order of business in teaching children music. In a paper advocating the teaching of musical concepts in elementary grades, Asahel Woodruff of the University of Utah warns that elementary school curricula that rely exclusively on "spontaneous expression" in music, visual art, and dance neglect the discipline essential to every artistic statement. He outlines a procedure for teaching concepts that progresses from percept to concept to testing the concept in practice. The work of some other music educators who have investigated problems in the teaching of general music are here either summarized in Reports or noticed under Dissertation Reviews.

Musicologists are gradually recognizing the importance of their part in the development of a literacy program. Professors Frank D'Andrea, Frederick Mayer, and Jack Sacher, in their respective articles, suggest what music educators regard as the musicologist's contribution. Professors Claude Palisca and Alexander Ringer show in their present articles that musicologists have already begun to seize the initiative in pioneering new instructional programs. Many distinguished musicologists are also variously engaged in the Juilliard and Contemporary Music Projects, to mention only the most extensive. This constitutes a beginning. Only an intense, concerted effort waged simultaneously on all fronts will succeed in overcoming the celebrated inertia of the educational status quo. Much new educational and musicological research in hearing, learning, and musical concept formation is required for an empirically well-founded program for musical literacy. The psychology of hearing and the process of musical conceptualization merit especially intensive study, since they are all but neglected fields. And if concept teaching is to be more than a pious wish, musical terminology must be properly standardized, musical concepts must be developed and formulated more precisely, and the patterns and processes of musical utterance must be understood more completely.

A survey of recent books, manuals, and articles that outline concept teaching for music educators or report on its application reveals serious deficiencies of formulation and organization that must be corrected before they are programmed into teaching machines. One indication of the terminological disorder is the loose use of the term "concept" for anything from positive descriptions of entities and straightforward definitions to propositional statements of fact. The generalizing power of a concept is all but overlooked. (A concept, let us recall, is a general idea used for a class of items and necessarily

involves a measure of abstraction.) The manual with the greatest scope and potential is *Music in General Education* (MENC 1965). Although it sets out to be suggestive rather than extensive and systematic in its recommendations to high school teachers, it follows its predecessors in failing to take sufficient account of the present state of musical knowledge as embodied in contemporary musical and musicological thought. For instance, it echoes educational tradition by reducing rhythm to a single factor—meter. But the notion of rhythm now generalizes the temporality of music on many more levels than that. A complex of factors which vary from music to music delineates the temporal procession of musical events; and such concepts as harmonic rhythm, timbral rhythm, and registral rhythm are now available. To compound the difficulty of the manual's organization, a number of factors that may contribute to rhythm are treated under the topic "Interpretation," an activity defined as the choices the performer makes in dealing with the "variables": dynamics, expression marks, instrumentation, phrasing, and tempo. In addition to making the unwarranted assumption that pitches and durations are fixed and the rest variable, this approach neglects to consider that if the composer has made choices with regard to any of these factors, they no longer admit variation unless the composer so indicates. The task is then to interpret the composer's notation in the light of our best knowledge of the relevant conventions of his tradition and to realize the musical values of his utterance as completely as possible.

The section of the manual titled "Form and Design in Music" demonstrates how sparsely the multi-levelled complexity of musical structure is conveyable to the musically preliterate. As in the majority of such texts, "form" is here reduced to the repetition schemes of motives, themes, and their transformations in closed forms of the common practice period. The harmonic-tonal structure of a Beethoven symphony movement selected for intensive treatment is not mentioned (*pace* Schenker) and melody is treated as a static array of pitches (*pace* Kurth). Nevertheless, *Music in General Education* contains far better information and more complete coverage than its predecessors and is clearly a new departure which deserves to be supported and supplemented by constructive musicological thought.

There are many ways in which musicologists can contribute to the achievement of an effective and comprehensive program for musical literacy and yet serve the interests of musicology as well. One realm which remains relatively uncharted, and which has not been indicated elsewhere in this issue, is musical structure. The pre-emptive task of recovering the historical sources and contexts of Western music and the desire for a total, positive history of music have consigned structural research and contextual analysis to lower priorities. The present need for more complete formulations of compositions as complex systems may stimulate musicologists to test the hypothesis that musical structure is in some critical respects altogether different from other classes of structure, and the corollary that dynamic and auditory (in addition to static and visual) paradigms are required for its explanation. Intensive research in the forms of musical utterance may reveal genetic structures as powerful as, say, Buckminster Fuller's discovery of the tetrahedron in the structure of the physical world. Musicological method would be enriched and the discipline's contribution to knowledge enhanced in the degree that

musicologists discover and explain the uniqueness of musical structure as a multi-levelled interrelationship of temporal functions. New theories would have to account for the perhaps unexampled multivalence of the elements and modules of musical structure, such that a single sound or sound-complex may function as an event simultaneously in some or all of the processes generated by the several variable properties of musical signals.

An empirically-founded program for musical literacy should be pursued with all possible energy. Delay at this juncture could prove costly. Although many educators are properly sceptical of the rush to introduce automated teaching systems before the programs have been properly tested, electronic technology is offering a seductive battery of hardware. The race is already on. Only the utmost vigilance will prevent the conceptual equivalent of the school marm from being sealed into, and indefinitely reproduced by, the gleaming machines. Industry is not disposed to wait while the wheels of research grind slowly on. With federal funds flooding education at an increasing rate, Wall Street now regards education as "the growth industry to watch." The scent of profits has excited the giants of publishing and electronics into mergers that will influence every branch of education. While the spectacle of corporate courtship rites enacted on so grand a scale merits the highest admiration, the imaginable consequences give one pause. With the education market estimated as having a billion dollar potential, stakes rise, pressures mount to buy and sell, and to cut risks manufacturers design systems for prompt and wide acceptance. It is not beyond reason to imagine the new combines buying into educational systems as the television industry has bought into professional sports. Education as "show biz" would not be far behind.

Unless the most responsible and imaginative professionals work creatively together to prepare the needed software, music education may soon be saddled with expensive but misbegotten programs that might do the cause of musical literacy more harm than good. One solution to the urgent problem might be an agency whose sole function is to plan an intensive campaign of research and development directed to achieving a program for musical literacy adaptable to the various educational levels. The professional societies, governmental agencies, and private foundations concerned with music instruction might appoint and fund a directorate of qualified individuals charged with assimilating the results of research accomplished, with stimulating new research where needed, with adjudicating the merits of proposed programs, and with commissioning the writing and testing of new programs that meet the most exacting standards of current musical and educational knowledge. For a powerful attack to develop, music educators in public schools, conservatories, and colleges will need to draw closer together. To adequately equip performers, composers, listeners, and thinkers as music perceivers, their programs will have to be more closely coordinated. The restoration of music to its ancient place of honor in liberal education and in the culture at large will be a hollow triumph so long as it is assumed that the musically preliterate can understand music.