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N.B. All contributors are advised to keep a copy of any manuscript submitted. The Editorial Committee can not be responsible for loss of manuscripts.

PREFACE

The Missouri Journal of Research in Music Education, published as Bulletin of the State Department of Education, is devoted to the needs and interests of the school and college music teachers of Missouri and the nation. This issue, Volume II, Number 2, is the

seventh to appear in as many years.

readers who have written suggestions concerning the content of past issues and request that criticisms and suggestions, always welcome and never unheeded, again be sent to the Editor concerning the content of this issue. We strive for a reasonable balance between music theory, history, philosophy or aesthetics, and pedagogy. It is difficult to judge how successful we are without reader response.

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Missouri State Department of Education. — The EDITOR.

Progress Report on

ACTION RESEARCH PROJECT

in the State of Missouri

Bion McCurry Chairman, Action Research Committee

Early in 1967, the Executive Board of the Missouri Music Educators Association approved a proposal made by Mr. Donald Anderson, Director of Music, Brentwood Public Schools. The proposal was designed to initiate and encourage research on the part of Missouri school music teachers whereby music education programs in the state and the nation might be strengthened. The proposal was labeled Action Research Project.

A modest appropriation was set aside by the MMEA Executive Board to be awarded as honoraria to those Missouri teachers who had completed an original research project of merit. The amount of each honorarium was to be determined by a committee appointed for this purpose. In addition to an honorarium, the editors of the Journal were to give strong consideration to the publication of the

research results.

Five applications for research projects were submitted and accepted for consideration. At the 1968 Spring meeting of the Action Research Commttee, a \$200 honorarium was awarded to the director of one completed project. Three other projects nearing completion

are to be considered at the committee's Fall meeting.

The recipient of the first honorarium awarded by the Action Research Committee was Mrs. Deanna Marshall, an elementary music teacher in the Eldon R-1 Schools, Eldon, Missouri. Her research project was one in which she designed an innovative music test for lower elementary music students, titled, "Fun with Music." The results of her project will appear in a later issue of the Journal.

The Action Research Committee is most enthusiastic about the interest shown, and the results obtained in this, the initial year of the state project. Action Research will continue to encourage Missouri teachers to submit applications to the Committee for any research project related to music education they may wish to initiate.

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NOTES ON MUSICAL TASTE

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Introduction

The development of musical taste is a professed aim of music education. As such, it is mandatory that music educators have an understanding of the term "musical taste."

"Taste," "application," "discrimination," and "preference" all imply the making of judgments, and in this respect they will be considered equivalent in this paper. It is interesting to note that while "appreciation" is the term most frequently used in connection with music education, and "taste" was the most often employed in early research, later studies have favored the use of the word "preference."

These notes are intended to give an overview of some of the writing in the field of musical taste, to point out some conclusions which have been drawn from the research to date, and to suggest implications that these findings may have for Music Education.

The early music critic, Johann Adolf Scheibe (1708-76), on May 14, 1737, in *Der Critische Musickus*¹, Hamburg wrote:

All the ornaments are written out in full. Therefore his compositions are deprived of beauty, of harmony, and of clarity of melody, since the song is unrecognizable. All voices must work with each other, all with the same weight, so that it is impossible to recognize the principal voice. In short (J. S.) Bach is to music what Lohenstein is to poetry. Their inclination toward bombast led them both from naturalness to artificiality, from sublimity to want of clearness.² In 1791 these remarks appeared in Chronik von Berlin:

What the composer must express is, not an overloaded orchestra, but heart, feeling, and passion. Only as he writes in a great style, only then will his name be given to posterity. Gretry, Monsigny, and Philidor prove this. Mozart in his Don Giovanni intended to write something uncommonly, inimitably great. There is no doubt: the uncommon is here, but not the inimitably great! Whim, caprice, ambition but not heart created Don Giovanni.

According to a contemporary, in his Symphony Number Four, Beethoven:

. . . is extremely bizarre, and makes himself unintelligible and an object of terror to even a cultivated dilettante.

A Boston newspaper, after a performance of Stravinsky's Le Sacre du Printemps in 1924, contained:

He who could write the Rite of Spring, If I be right by right should swing.⁵

Musical tastes change; what is considered in good taste at one time is in poor taste at another, and conversely, as demonstrated by the following comment which appeared in the Allgemeine musikalische Zeitung in 1793:

Mozart was a great genius, but he had no real taste, and little or perhaps no cultivated taste. He missed of course, any effect in his original operas.⁶

The Instability of Musical Taste

The instability of musical taste was attested to in a 1941 study by John H. Mueller and Kate Hevner in which they made a survey and analysis of the programs performed by eleven musical organizations from 1813-1941. They found that during this period musical tastes were never static, and that what was popular in one era, was not so in another.⁷

Over a period of time the listeners themselves change. Their interests, musical habits, expectations, and backgrounds, in terms of which the music apprehended, are ever modified by intervening experiences. Music which is easily grasped, enjoys quick popularity, but this wanes just as swiftly. However, music termed by Mueller and Hevner as highly complex and compact is accepted more slowly, but its decline from favor also takes proportionally longer.

Each piece has an optimum number of repetitions at which the greatest enjoyment takes place. Repetition beyond this peak results in a sharp decline in popularity unless an interval, during which the listeners can forget some of the piece, occurs between performances. Thus relatively familiar and more simple music remains "immortal" only by not being too much alive. It was asserted by Mueller and Hevner that because of this inconstancy of taste, every composer has a life cycle, and the end of his popularity (i.e. of his music being considered in good taste) is as inevitable as the beginning.

What is implied in the Mueller and Hevner study had been stated earlier by Mortimer J. Adler in 1929. Adler believed that taste exists only in relation to social norms, and can only be measured in terms of an individual's deviation from the group norm. It was the purpose of an investigation by Adler to discover whether the modal judgment of one group differed from that of another.¹¹

In Adler's studies, the subjects listened to several original compositions, each having three variations (distortions). The distortions were:

Dull: "flat-foot," unimaginative. [sic] This version included the original in only the barest outlines.

Sentimental: filled with musical cliches.

Chaotic: This version included certain figures which destroyed the unity of the original. (e.g. whole passages omitted, foreign passages inserted, rhythmic structure destroyed, unjustified dissonances.¹²

The subjects heard six sets, each containing an original composition with its three variations in mixed order. The subjects were asked to indicate only the selections of each set that they liked "best" and "least." They were also asked to complete a musical background questionnaire. The scores made by the subjects were compared with the scores made by an "expert" group of nineteen graduate music students.

A second test series was of fundamentally the same design as the first.

Adler made it quite plain that even though these tests used the original version as the basis for scoring, it was not presumed that conformity with the original was necessarily indicative of "good" taste. One group tested was relatively untrained in music, with a predominance of subjects who had never taken music courses in college, did not attend concerts, and did not play any music instruments. The overwhelming preference of this group was for the "sentimental" version. If the members of this group were used as the arbiters of "good" taste, it would be in "bad" taste to prefer the unadulterated or undistorted works of Bach, Beethoven, and Wagner to deliberately "sentimentalized" distortions.

The original version can be said to be superior or "better" if it is (1) the modal preference of a random sampling of the population, or (2) if it is the modal preference of a group of experts. The results of the study by Adler justify, in this case, the assumption that the original version is superior because it is the modal preference of the entire group as well as of the group of experts, with the latter choosing it 90% of the time.

It was also found that if those possessing knowledge of either the composition or of the composer were barred from taking the test, the modal preference of the resultant group would be the "dull" version. Adler conjectured that this was because the dull version was closest to the original, differing in what was omitted, whereas the sentimental and chaotic versions differed from the original through the introduction of "negative" values. Not unexpectedly, Adler inferred that training is an important factor in developing a musical taste which correlates with that of the experts.

An early attempt at the scientific measurement of musical taste was made by M. L. Mohler. A report of his research was written by M. R. Trabue in 1923. According to Trabue, Mohler sought to measure the ability to distinguish the difference between good music and poor music.

Mohler established an absolute scale of musical values (i.e. a hierarchy) by a combination of the musical preferences of a group of "experts" and a group of "intelligent adult" laymen. Phonograph recordings of sixteen orchestra selections, original or ar-

ranged, were used. The works varied from whole movements of pieces from the classical literature to popular songs.

Four groups of subjects were tested. Two groups were played four sets of records with four records in each set. The other two groups listened to five sets with three records each. The subjects were asked to rate the records in each set as: "best," "next to best," and "poorest." The subjects' preferences were then graded in terms of their correlation with the preferences of the expertintelligent adult group (i.e. the absolute scale).

The previously noted fact that musical taste is not constant can be seen here in retrospect also. In scanning the order into which the "experts" placed the first twelve selections on Mohler's scale, the disparity with what one would assume to be present day preference is striking. The order of preference of the expert group only (excluding the intelligent adult ratings) is as follows:

1	Intermezzo	Wolf Ferrari
2	First Movement of the Unfinished	
	Symphony	Schubert
3	Venetian Love Song	Nevin
4	Anitra's Dance from the Peer	
	Gynt Suite	Grieg
5	Valse, from the ballet music	
	of Faust	Gounod
6	Chaconne	Durand
7	Largo from the New World Symphony	Dvorak
8	Turkish March from the	
	Sonata in A Major	Mozart
9	Deer Dance	Skilton
10	Triumphal March from Aida	Verdi
11	Sparklets Wa	lter E. Miles
12	Introduction to Act III,	
	Lohengrin	Wagner

(One should take into account the inconsistent quality of recordings of that time, but today's musician finds the ranking almost incredible).

In the results of this test it was noted that the pupils of a school in which the development of music appreciation had been attempted made higher scores, i.e. correlated more closely with the expert-intelligent adult group preferences, than the pupils of schools where little or no such training was available. It was concluded that musical taste is very much susceptible to training, and this has, of course, been amply demonstrated elsewhere.

The object of a study made by F. L. Wells¹⁷ was to measure whether a musical composition evoked the associations denoted by the assigned title, or some other associations. The subjects¹⁸ were given a list which contained the English names of ten compositions.

After hearing each piece, the subjects were asked to indicate which one of the compositions they thought most likely to have been played.

Of the compositions heard, each with an obviously descriptive title, in only one case¹⁹ was the title assigned to the correct piece by a majority of the subjects. In only two other instances were the titles and compositions correctly united by even a plurality. Wells observed that it is possible to "inculcate dogmas" about what certain musical compositions symbolize, but questioned the psychological validity of such techniques.

Paul Farnsworth²⁰ made a study using J. S. Bach's Concerto for Clavier in d Minor. The piece was played to two college groups of fifty students each. The members of one group were told the name of the composer. The subjects of the other group were given the impression that the piece had been composed by Buxtehude, who was known to only two members of the group. After hearing the work, both groups were asked to express the degree or amount of their enjoyment. The amount of enjoyment professed by the subjects who knew the composer to be J. S. Bach, whose eminence is almost universally learned through training, far exceeded the professed enjoyment of those who were led to believe that the relatively unknown Buxtehude was the composer.

In 1948 M. G. Rigg²¹ experimented with three college groups, offering each the same music to rate, but varying the circumstances. The first group was told that the music they were to hear was of a romantic nature. No specific mood to relate with the music was given to a second group, but a third group was given the impression that the music was associated with Hitler and German nationalism. Though all groups listened to the same music, the responses of the three groups were markedly different.

The importance of training in the formation of musical taste was also observed by Mordton J. Keston.²² He found that the most effective way to teach "music appreciation" (i.e. to bring about desired responses which most closely correlate with a presupposed standard of musical values) was to present the music with carefully planned comments.²³

Musical Taste and Environment

Although it may be inferred from the observations presented thus far, that all students in the field believe musical taste to be a product of cultural conditioning, this is far from being the case. Attempts have been made to trace preference and taste through inheritance. One such effort was made by Ida Frischeisen Kohler.²⁴ The subjects listened to several different tempi on a metronome, and were to choose the one which was most agreeable. The experiments were repeated on the subjects at a later date in order to find the intra-individual constancy.

Frischeisen-Kohler disclaimed environmental conditioning as being significantly influential on tempo preference for two reasons. First, there was a high degree of intra-individual constancy in preference of tempi despite long intervals between the original test and the retests, and despite the fact that the tests were given at vastly dissimilar times of the day, (which would cause differences of mood). Second, there were marked differences between the preferences of monozygotic twins, and even greater differences between dizgotic twins as well as ordinary siblings. It was surmised by Frischeisen-Kohler that such pairs would experience the same environment and therefore, if environmental conditioning was significant, would exhibit similar preferences.

Tempo preference was demonstrated to be conditioned by the environment, however, by John P. Foley, Jr., ²⁶ in a similar experiment. Foley observed that women employed in occupations involving exposure to loud, rapid, repetitive noises as a constant source of auditory stimulation (e.g. typewriters, sewing machines, power tools) preferred relatively rapid tempi. Women whose occupations did not offer any such rapid auditory stimulation preferred slower tempi. It was discovered, moreover, that the mean preferences of the more rapid-preference groups increased and those of the slower-preference groups decreased or remained constant with increased time spent in occupational conditioning or experience.²⁷

Supporting evidence that musical taste is, on the whole, conditioned by the environment was noted also by Karl F. Schuessler,²⁸ who sought to determine whether differences in socio-economic background could be associated with variations in musical taste. The subjects in Schuessler's experiment were played one minute excerpts from eight selections: viz. old song, classical, jazz, modern classical, old waltz, light classical, popular, hillbilly. They were to mark their preferences:

- 1 Like it a great deal.
- 2 Like it.
- 3 Dislike it.
- 4 Dislike it a great deal.
- 5 Undecided.

The test consisted of two parts. In the first part, the subjects were asked to provide background information regarding socioeconomic status and musical training. The second part of the test was devoted to the actual listening.

Schuessler found differences of musical preference between men and women. He suggested that classical music in the American culture is primarily a feminine reaction, though this was not definitely established. In Schuessler's opinion, some of the variation in taste between men and women is due to a tradition in this culture which encourages men to regard certain kinds of music as effete, while women are conditioned to judge the same music as genteel.

Salient differences in preference were also discerned between age groups. According to Schuessler, these dissimilarities manifest the differentiating effect of age on social experience, for whereas the interests of young people lead them into contact with new music, old people become isolated from many kinds of new music.

Training was found to be important in the formation of musical taste, but Schuessler saw this to be related to socio-economic classes whose members are more likely to receive musical training than those in lower strata. Likewise, familiarity with the music affects taste, and a particular socio-economic position may cause an individual to be continually exposed to some kinds of music while remaining virtually isolated from others. In this respect, socio-economic background has a conditioning effect upon musical preferences and attitudes regardless of musical training.²⁹ Schuessler's qualification of this, however, is significant to music education:

Although continuous exposure to a particular kind of music does not necessarily lead to a favorable attitude toward such music, it appears that isolation usually leads to negative judgment.³⁰

There have been studies made the results of which do not completely coincide with Schuessler's. Keston and Pinto,³¹ for instance, believed sex, age, and intelligence to be neglible factors in influencing musical taste. They observed musical recognition and training to be important factors. In addition, a high correlation was found between musical preference and intellectual introversion, which they define as a tendency on the part of a subject to think analytically, to theorize, and to pay attention to his own reactions and feelings in an aesthetic situation.³² This is not to be confused with social introversion or extroversion, which Keston and Pinto claim have a low correlation with musical preference.

The opposite was found by John Johnstone and Elihu Katz³³ who, in working with popular music, noticed a high correlation between social extroversion and musical taste, as well between environmental conditioning and musical taste. They observed that preferences in popular music among adolescent girls varied according to the neighborhood in which a girl lived, and with her relative popularity among her peers. Girls who were highly popular conformed more closely to the prevailing neighborhood norms than did less popular girls. Musical preferences for particular songs and disk jockeys were found to be seated in small groups of friends. From this Johnstone and Katz inferred that personal relations play a major role in developing musical fads and shaping tastes.

Vincent R. Rogers³⁴ analyzed the musical preferences of school children in terms of:

1 Grade level.

- 2 Neighborhood (urban vs. suburban).
- 3 Socio-economic status.

4 Sex.

The music used for this research was divided into four categories.

- 1 "Serious" classical.
- 2 "Popular" classcal.
- 3 Dinner music.
- 4 Popular music. (n.b. The quotation marks are supplied by the present author.)

Three pieces were chosen for each category by faculty members of the department of music of a university as being representative of that particular type of music. To make the problem of selection easy for the children, each item on the test was paired with every other item.

Rogers found an overwhelming preference for popular music at all age levels for all groups. There was a decline noted in preference for classical music as the children grew older. With increased age the children conform more and more to a single pattern of musical preferences. There were, for example, much greater differences between the preferences of individuals in the fourth grade than in the twelfth grade.

Sex was also found to be a factor, but related to maturation. The fact that girls mature sexually before boys, and the consequent earlier interest in the opposite sex, influences musical tastes, principally because popular music takes on entirely new social meanings to adolescent girls in about the seventh grade.

Rogers observed no significant differences between the musical tastes of children living in urban areas and those from rural areas, but there were considerable dissimilarities perceived in children coming from different socio-economic strata.

Summary

The results of studies into musical taste have not always been in complete agreement.³⁵ In summary, however, three fundamental conclusions seem justified based on the studies reported on in this paper.

First, musical taste exists only in terms of social norms. Taste may be judged solely in relation to the modal preference of a group, and in our present society, taste is usually judged in relation to the modal preference of a group which is considered expert in a given field.

Second, musical taste is a matter of cultural conditioning. An individual's preferences are shaped by his environment.

Finally, because it is a matter of cultural conditioning, musical taste is subject to training. One of the basic functions of the music educator is to bring the student from an awareness, through an understanding, to an appreciation of the art of music. This unavoidably involves the making of value judgments both by teachers and students. The fact that the concepts of good and bad music are in a constant state of flux need not present insuperable problems to the teacher, for his goal is not to present the student with a rigid formula, but to develop within the student the abiltiy to make knowledgeable judgments, to discriminate — now and in the future, based on a sociologically oriented value system. This is what the cultivation of musical taste means to this writer, and it is to this end that the music educator must strive.

FOOTNOTES

- 1. As translated by Max Graf, Composer and Critic: Two Hundred Years of Musical Criticism (New York: W. W. Norton and Company 1946), p. 80.
- 2. What Scheibe is describing, of course, is the Baroque style, of which the music of Johann Sebastian Bach is now considered the epitome. Scheibe, however, was caught up in the prevailing doctrines of the Age of Reason.
- 3. Graf, op. cit., p. 137.
- 4. "Program Notes," Beethoven's Nine Symphonies (Radio Corporation of America, 1958), taken from Lawrence Gilman, Orchestra Music: An Armchair Guide, edited by Edward Cushing (Oxford University Press, Inc., 1951.)
- 5. Quoted by Donald Jay Grout, A History of Western Music (New York: W. W. Norton and Company, 1960). p. 631.
- 6. Graf, op. cit., p. 137.
- 7. John H. Mueller and Kate Hevner, Trends in Musical Taste: Analysis of the Repertoires of Eight Major Symphony Orchestras of the United States, of the Royal Philharmonic Orchestra and of Two American Opera Companies, 1813-1941 (Bloomington, Indiana: Indiana University Publications, Humanities Series No. 8, 1942).
- 8. Ibid.
- 9. These conclusions have been supported in research by E. M. Verveer and H. Berry, Jr., "Change in Affectivity with Repetition," The American Journal of Psychology, XLV (1933), p. 130 ff. Verveer and Berry believed that the discrepant results of some investigations may, in part, be due to the use of different numbers and frequency of repetitions.
- 10. Mueller and Hevner, op. cit.
- 11. Mortimer J. Adler, "Musical Appreciation: An Experimental Approach to Its Measurement," Archives of Psychology, edited by R. S. Woodworth, XVII (1929-30), Serial Number 110.
- 12. Two series of tests were given. In the first test only one particular trait of each piece was singled out to be distorted in each variation (i.e. melody, rhythm, harmony), but because this made it impossible to have the variations uniform from piece to piece, it was not done in the distortions of the second test series.
- 13. Ibid.
- 14. M. R. Trabue, "Scales for Measuring Judgments of Orchestral Music," The Journal of Educational Psychology, XIV (October, 1923), pp. 545-561.
- 15. Ibid.
- These were selected music supervisors, teachers, writers, and publishers attending sessions of the Eastern Music Teachers Association of New York, May, 1920.
- 17. F. L. Wells, "Musical Symbolism," The Journal of Abnormal and Social Psychology, XXIV (1929-30), p. 74 ff.

These included psychiatrists, graduate workers in psychology, social workers, and nurses.

Jungmann's Longing for Home.

Paul Randolph Farnsworth, Musical Taste; Its Measurement and Cultural Nature (Stanford, California: Stanford University Press, 1950) p. 64. This book is the most comprehensive in the field of musical taste. Ibid., p. 64.

Morton J. Deston, "An Experimental Evaluation of the Efficacy of Two Methods of Teaching Music Appreciation," The Journal of Experimental Education, XXII, (September, 1953).

This study refuted the argument that the desired responses could best be produced by exposure to the music alone.

Ida Frischeisen-Kohler, "The Personality Tempo and Its Inheritance," Character and Perosnality, I (September, 1932-June, 1933), p. 301 ff. This study bears relevance to the present paper in so far as tempo preference is a contributing factor to the overall formation of musical taste.

Frischeisen-Kohler also investigated the musical preferences of parents in relation to twins and ordinary siblings but those results need not be reported here.

John P. Foley, Jr., "The Occupational Conditioning of Preferential Auditory Tempo: A Contribution Toward an Empirical Theory of Aesthetics," The Journal of Social Psychology, XII (1940), pp. 121-129.

This does not preclude the fact that some characteristics of musical taste might be inherited, but research in this area is scanty and inconclusive.

Karl F. Schuessler, "Social Background and Musical Taste," American Sociological Review, XIII (June, 1948), p. 330 ff.

No distinctions were found by Schuessler between different races of the same socio-economic level.

Schuessler, op. cit.

Morton J. Keston and Isabelle M. Pinto, "Possible Factors Influencing Musical Preference," The Journal of Genetic Psychology, (1955) pp. 101-113.

Ibid.

John Johnstone and Elihu Katz, "Youth and Popular Music: A Study of the Sociology of Taste," American Journal of Sociology, (1957) pp. 563-568.

Vincent R. Rogers, "Children's Musical Preferences as Related to Grade Level and Other Factors," The Elementary School Journal LVII (May, 1957), pp. 433-435.

See Rhoda Lee Fischer, "Preference of Different Age and Socio-Economic Groups in Unstructured Musical Situations." The Journal of Social Psychology, (1951) pp. 147-152. Using unfamiliar classical selections, Fischer found no differences between age, sex, or socio-economic groups where the identity of the composition is unknown. In general, though, the greatest evidence can be seen to refute Fischer's conclusions.

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MUSIC READING

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INTRODUCTION

Music educators have generally agreed that music reading should be included in the school music programs. There is much disagreement as to the level of achievement which children should be expected to develop. The significance of music reading skills in the musical development of individuals can not be denied. This skill is considered an important element of appreciation, musical understanding and independent performance.

Music is a complex pattern of sounds and its notational system is of necessity complex. There are many elements to be considered: pitch, rhythm, temporal duration, tempo, dynamics, phrasing, attacks, and style. Music reading involves the simultaneous recognition and interpretation of all of these. Music reading as defined in this paper, consists of reading a musical score with respect to all obvious musical elements and reproducing the score either vocally or instrumentally.

Literature concerning music reading may be grouped in these broad categories:

- 1. Historical background of musical notation
- 2. Courses of study, methods books
- 3. Research literature.

This paper is concerned with the last two topics — research literature which has sought to determine the psychological foundations of music reading and methods utilized in its teaching in the classroom.

The methods used today seem to be quite variable and some experimentation is apparent. Most of the experimentation has been concerned with the use of mechanical devices and has not sought to form a substitute for the basic methods which have been in use for the last 150 years or more. Methods and techniques have been mentioned. It is not within the scope of this paper to determine the best method of teaching music reading. This problem can only be solved through extensive scientific research.

THE PSYCHOLOGY OF MUSIC READING

Music reading involves abstract thinking and the ability to deal with symbols. The only precise symbols used in music are those representing pitch and time. In order to correctly interpret musical notation there are four basic concepts which must be understood: (1) the concept of tonal relationships, (2) the concept of specific pitches, (3) the concept of time relationships with their expressive patterns in rhythms, and (4) the concept of form and design in the total organization.¹

Mainwaring² gives the first stage in the evolution of a concept, musical or not, as that of interested perception. A situation creates interested attention and an awareness of an event or experience. As the stimulating situation recurs, recognition is gained and the experience is then distinguished from all other experiences. Initial understanding does not include awareness of the characteristics which differentiate this experience from others. An analysis of the experience leads to definition of the associated word or symbol. This definition should emerge from the experience and serve to clarify that which has occurred previously.

This would indicate that musical learning should proceed from sound to symbol. Perception and recognition of some musical "whole" should proceed to conceptual and analytical knowledge, from the making and hearing of music to its notational symbolization by using the notation to express only musical patterns already known.³

From these ideas can be evolved two basic psychological assumptions: (1) that interested perception, imitative reproduction, recognition and association with name or symbol are the main stages in the evolution of conceptual knowledge and (2) musical images are first perceived as a Gestalt pattern and analysis occurs when notational symbolization makes this necessary.

Petzold⁵ conducted a study for the purpose of gaining significant information regarding the perception of music symbols by children of average musical ability and children gifted musically at the fourth and sixth grade levels. The study was divided into two phases. Phase I dealt with auditory and visual perceptoin of musical sounds. The subjects were given a visual presentation of the first melodic pattern consisting of from three to six notes. After receiving the starting pitch of the group of notes the subject sang an immediate response. There was then a visual and aural presentation of the configuration after which they sang a response. The next item was then presented and proceeded in like manner through the entire test. The test was presented three times with the items randomized. In Phase II the subjects were divided into two sections. Section A was presented a song from which configuration were extracted for drill. The song was then presented for sight reading. Section B was drilled on the configurations and then presented with the song. The subjects in Section B showed a higher degree of recognition than those in Section A which might suggest that appearance of a configuration within a song is more meaningful than an isolated presentation. Although prior practice on the song did not appear to have much effect upon the learning of individual configurations, learning the song was made more effective through prior practice on the tonal configurations. This would appear to indicate that presentation of a song as a whole makes it difficult for children to then recognize the individual elements of the song when they are isolated. The investigator stated, however, that the data did not clearly establish that one sequence of tasks is superoir to another in developing music reading competence.

This study was conducted over a series of regularly scheduled music periods during the school year. During the testing period the investigator found the following conditions existing:

- (1) Most children read the item very slowly, one note at a time.
- (2) Although children experienced little difficulty in making a response to the aural stimulus, they were seemingly unable to reproduce it accurately. This implies that skill in reading music can be developed only if the child is able to hear the pattern silently before he sings it. Developing this internal hearing presents many problems including an adequate identification of effective teaching procedures.
- (3) Children are usually aware of the general shape or direction of the tonal configurations but fail to acquire the ability to accurately identify the internal changes which make one pattern different from another.
- (4) When asked to read tonal configurations which they do not recognize they:
 - (a) Change the pattern to one familiar and similar to the stimulus
 - (b) Guess that the response being made is something like the stimulus without having any sound basis upon which to judge the accuracy of their response.
- (5) There was no significant difference between grades in terms of general ability to perform tasks.

In Phase II of the experiment, the gifted subjects consistently scored higher than did the average subjects. The music reading performance was more accurate and they learned the material at a rate three or four times faster than did the average subjects.

Another study involving students of average and above-average musical ability as evidenced by progress in music reading, was conducted by Harry King.⁶ The Knuth Achievement Tests in Music, Form A. was administered to 550 fifth and sixth graders of Fredonia and Dunkirk, New York. Two parallel groups were formed as to chronological age, semesters in school, school grades, sex and extra-curricular music study. Group A contained 64 students who had little or no skill in music reading as evidenced by tests administered. Group B contained 64 students who exceeded the average pupil in the skill. The hypothesis was that music reading includes acts of a mental nature which are used in interpreting the symbols correctly, and that a relationship exists between music reading and intelligence.

The results of the Otis Self-Administering Tests of Mental Ability showed a substantial difference in group means in favor of Group B, the good music readers. Music reading is an intellectual process to at least the same extent as other academic subjects. A similar relationship between language reading ability and intellect has been discovered by several investigators.⁷

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Apparently then the major problem of music reading centers around the methods used to help the child relate the auditory perception to the visual stimuli so that they are meaningful. The process of music reading appears to depend upon three perceptual levels: (1) the auditory perception of musical sounds, (2) the visual perception of musical symbols and (3) the integrated and internal process by which visual and auditory stimuli can evoke a response in terms of previous experience. The relationship between auditory and visual perception needs to be more clearly defined.

Petzold studied the development of auditory perception of musical sounds by children in grades one through six. Subjects of the study were 600 children, randomly selected, from the public schools of Madison, Wisconsin. Four tests were administered: (1) a 45-item test designed to provide information regarding the auditory perception of short tonal configurations, (2) a 20-item test designed to provide information regarding the consistency of responses to short tonal patterns, and (3) a phrase test designed to provide information regarding the auditory perception of larger musical unit and (4) the rhythm test which consisted of the 45-item test rewritten so that each represented an integrated melodic and rhythmic pattern. Subjects were requested to reproduce vocally each test item.

Results indicated a relationship between age and auditory perception, when scores for upper and lower grades were compared. There was no significant differences apparent between boys and girls.

The learning process in music involves two primary aspects: acquisition and retention of musical information and experience, and the development of musical skills. Both of these are a part of what we term "tonal memory." The extent of the development of the tonal memory is a determinant factor in the degree of success with music reading. The training of the ear in tonal memory is an essential part of the musical development of children.

Otto Ortmann¹⁰ conducted a study to determine the cause of difficulties in tonal memory which are commonly met in classroom situations. A series of short melodic phrases was given to a group of classes which were unselected as to age, intelligence and amount of training. All, however, were college music students. Scores obtained from the number of tones correctly reproduced within a group indicated the sequences which were relatively easy or difficult. Results of this indicated the following points to be kept in mind in training tonal memory: (1) begin with configurations of two tones, the first tone given. Use stepwise progressions first, then narrow skips, and wide skips last; (2) use repetition as the easiest element to remember first with diatonic progression, then with skips; (3) introduce skips one at a time, preferably at the beginning; (4) introduce more than one change of direction by using interrupted repetition, first with diatonic progression, then with skips. The adding of a second pitch change increases the difficulty; (5) increase variety of intervals in any one example gradually, first with change of pitch direction; (6) introduce changes in pitch-direction by repeating the same interval and (7) reserve examples containing all variables until preceding types have been mastered.

The results of this study were probably influenced by the previous musical experience of the subjects, since they were music students at a level of training that would indicate some prior study. The ease or difficulty with which they were able to respond to the stimuli was somewhat influenced by familiarity with musical elements such as scales or triads. The introduction of one variable at a time in melodic patterns would appear to be a valid means of training tonal memory.

Tonal memory requires active mental imagery. According to Seashore¹¹, the mental image operates in music in the following three ways: (1) in the hearing of music, (2) the recall of music, and (3) in the creation of music. Reading music is concerned with the first two aspects in addition to the reproduction of the mental image. Preceding the auditory mental imagery is the presentation of the visual stimuli. The total process involves the training of the eye and ear to transfer the symbol to musical production.

Studies of the visual process in music reading have generally been concerned with eye movements and the extent of the reading span. All of these experiments employ either the tachistoscope or a camera to photograph eye movements. These studies have been similar to those conducted in language reading. Tinker ¹² studied eye movement duration, pause duration and reading time. The eye moves in jerks with pauses between movements during which apprehension occurs. The time taken for fixational pauses and that for eye movements gives the total reading time of any selection.

For all the materials employed, less than ten per cent of the reading time was taken by eye movement. The total average showed that only 5.9 per cent of the reading time was used by eye movements. This indicates that most of the time was consumed by perception pauses. When the mental processes involved were more complex the reading pauses consumed a relatively greater per cent of the total time.

These general principles of visual perception may be assumed to be applicable to music reading. The rhythmic character of music along with the requirement of a uniform tempo make music significantly different from language reading. Although language reading involves accents and the use of rhythmic groups, it does not involve a regularly recurring beat as is the case with music. It is the regular measure accent which distinguishes a musical rhythm from the rhythm of poetry or prose.

In language reading eye movements and perception deal only with horizontal direction. In music reading horizontal, vertical and all angles of oblique directions are met. Visual span in music reading, therefore, is concerned with diameter rather than a single dimention. Ortmann¹⁴ investigated the span of vision in note reading. He photographed eye movements of subjects from the Peabody

Conservatory of Music in Baltimore. He utilized patterns of three notes and distributed the notes in varying spatial arrangements. He found that the field of clear vision included a circular area of between ¼ and ⅓ of an inch in diameter. The subjects of the experiment were able to read notes on adjoining lines and spaces when the horizontal distribution was more than ⅓ of an inch. It was easier to read notes in one direction, the particular direction was of no consequence. Ortmann equated this with language reading in that the page of a book may be turned at an angle of as much as 80 degrees without a noticeable decrease in reading speed. Only when a 90-degree angle is reached does the rate of speed sharply decrease.

Weaver¹⁵ discovered that the average perceptual span for musical symbols varied between three and five notes for different kinds of note arrangements. He compared the results obtained in studies of word reading with the results gained from his study and concluded that one musical note is practically equivalent to one word. The average number of words per reading pause reported in studies of word reading is very similar to the average number of notes per pause for the selections used in a study by Weaver.¹⁶ A chord or phrase of music would correspond to a phrase of words.

The speed of music reading, for the subjects in the experiment, was more closely related to the durations of reading pauses than to the number of pauses. This was not found to be true in studies of word reading.¹⁷

The speaking of words retards the reading process. More fixations are made in oral reading, because this retardation allows more time for the reader to thoroughly scan the page. This is analogous to reading music in a slower tempo.

Although there have been many parallels drawn between music reading and language reading, it must be remembered that the former is a complex and different skill. Patterns of notes rarely are seen in the same combinations as are alphabets in words. There are many more variables concerned in music reading. Tempo-rhythm, dynamics, pitch, duration, attack must all be considered simultaneously. While there are many elements to be considered simultaneously in reading any symbolism, the internal musical process of perception and reproduction appears to be more complicated.

Weaver and Van Nuys¹⁸ studied the reading of musical rhythms and melodies by recording photographically the activities of the reader's eyes and the keyboard execution of musical phrases. The subjects were twelve men students at the Oberlin Conservatory of Music in Ohio. One group of twelve-note phrases written on the treble staff were presented to the subjects of the experiment. The patterns were varied with some having rhythmic patterns with no pitch changes, some containing melodic patterns having notes of only one time value and some containing combinations of these rhythmic and melodic patterns. Prior to presentation of the test material each subject was given experience in reading before a camera. During the test each phrase was presented for 2.8 seconds.

In this time the subject prepared himself to execute each phrase as completely as possible immediately following the presentation.

From the records of the keyboard performances the number of notes correctly executed was determined for each phrase. From the records of ocular behavior the durations of reading pauses, the number of notes scanned, and the number of backward movements of the eyes were determined for each phrase. The average number of notes executed correctly during each reading pause was determined from each kind of records.

The memory span decreased as the complexity of note relationships increased for both rhythm and melody. The difference between the number of notes perceived visually during the exposure period and the number executed correctly was greater for the three most difficult melodies than it was for the rhythms. Backward movements of the eyes occurred more frequently for the melodies than for the rhythms.

The results of the study indicated that the melodic factors constitute the limiting conditions for memory span whenever the melody is not extremely simple. An increase in memory span depends largely upon improvements in the ability to apprehend pitch patterns as stable melodic parts of a composition. The rhythmic factors constitute the limiting conditions for the rate of reading or average pause duration whenever the rhythm is not extremely simple. This implies that increase in rate of reading depends upon improvements in ability to grasp rhythmic figures.

Tonal memory is again indicated as an important factor in musical development. Since musical material must be organized in advance of its reproduction, this factor is important in determining how far ahead of execution the performer can read.

Using memory span as an index of diffifulty the investigators¹⁺ rated the phrases as the easiest to the most difficult as follows:
(1) a rhythm composed of a simple repeated figure involving only three different note values, (2) melodies progressing scalewise or by symmetrically arranged thirds, (3) rhythms having four or more note values in varied patterns, and (4) melodies having pitch intervals of a fifth or larger arranged in irregular progressions.

The Gestalt theory as applied to language reading also has implications relevant to music reading (as indicated on Page One of this paper). The sentence, story and occasionally the word method of teaching language reading are sometimes described as an application of the Gestalt concept that one should begin with a large, meaningful whole and leave the discovery of the individual parts to a process of analysis.²⁰ The Gestalt psychologists believe that the natural way to discover parts is by a process of analysis from a larger whole. This idea is equated with the development of human behavior. According to this view an infant first reacts to a stimulus as a whole. A differentiated response comes with learning and development. Another Gestalt principle is that the whole is greater

than the sum of its parts or that the whole contains properties which cannot be found in any of its parts. The meaning of a sentence, as well as a musical phrase, is found in the relationship of its parts.

The importance of Gestalt perception was found to be a factor in two experiements involving music reading. Kenneth Bean²¹ conducted a study of the complexity of musical patterns that could be perceived with one fixation of the eyes by individuals with various degrees of musical training and experience. The tachistoscope was used in the presentation of the musical materials. The subjects were requested to notate musical patterns presented on a staff following a brief exposure. The overall pattern of the pitch heights was grasped even when individual notes within the group were notated incorrectly. The results of a careful study of the kinds of errors that were made persistently led to a Gestalt interpretation of reading, which could be applied to music learning just as Gestalt principles have been applied to language reading. Bean assumed from this data that a close analogy exists between the reading of words and the reading of music, because there are groups of notes which are definite perceptual units and in this way the equivalent of words. A similar analogy was assumed by Weaver from the results of the study mentioned previously. Every musician has a musical vocabularly just as he has a language vocabulary and familiar patterns should be recognized at a glance.

Otto Ortmann ²² studied elements of chord reading in music notation. The material was presented on a series of flash cards in a classroom presentation. The notes were placed on a staff without a clef. Each card was exposed 2/5 of a second and all the subjects, who were college students, then wrote on staff paper what they had seen. Difficulty of apprehension increased sharply after chords of four notes. There was an increase in errors as the vertical distance increased. When notes of the chordal group formed parallel lines both horizontally and vertically they were easier to read.

He discovered that the eye was first attracted to the portion of the pattern with the closest cluster of notes and there were fewer errors for these parts. A recognizable chord unit, such a chord built in thirds, was easiest to read. He paralleled this to word reading. If the chord unit is anticipated and the stimulus coincides with the anticipated unit, the example is easy to read. He termed this mental set. Here again as in Bean's study the subjects grasped the geometric outline of the chord as a whole, although individual notes may have been missed.

Music reading has five aspects in its complete form: (1) eye movements, (2) visual perception, (3) auditory perception, (4) the mental process involved in integrating the visual and auditory perception, and (5) reproduction of the visual stimuli. The ability to read efficiently depends upon all of these factors, which exist as an instantaneous reaction.

Experiments have indicated the manner in which the eye moves during reading. The span of perception has been set at approximately three to six notes during one fixation in an area of ¼ to ⅓ of an inch. Generally the geometric outline of a tonal pattern is perceived and related to previous experiences with tonal patterns.

The most complex action of music reading is that of relating visual and auditory perceptions and their reproduction, particularly vocal reproduction since instrumental reproduction is somewhat mechanical. Music reading can be analyzed as a pattern of perceptual response behavior. Its development depends entirely on ear, eye and understanding.

METHODS OF TEACHING MUSIC READING

Every program of music reading should be planned to promote and develop growth in music awareness. Every procedure for the teaching of reading must meet one essential requirement — it must be designed to enhance and improve the learner's understanding of music.²³ It should be preceded by the development of inner hearing and imagery.

The concept of readiness has become an important factor in planning the music reading program. Readiness is a combination of many abilities, skills, understandings, and interests, each of which contribute in some manner to the process of learning to read. The following factors have been proposed as important to a child's readiness to begin language reading and may be applicable in some meassure: 24 (1) perceptual development, (2) intellectual development, (3) maturational adequacy, (4) background of personal experience, (5) auditory and visual discrimination, (6) sensory development, (7) attitudes and motivation, (8) social and emotional development, and (9) instructional methods and procedures. Generally music educators characterize music reading readiness by understanding of concepts of rhythmic movement, high and low, fast and slow, loud and soft, phrase divisions and skill in singing including an acquaintance with a wide range of songs and instrumental music.

Through the years there has been much disagreement among music educators as to the best method of teaching music reading. There are, however, some generalities which can be recognized as the characteristics of any good method. First an effective method must approach the problem through actually making and experiencing music. It should have an immediately functional or interesting purpose. It should foster a positive attitude toward music as an expressive art and it should have some carry-over value outside the music classroom. The method should develop the student's framework of concepts so that each new problem can be related to knowledge previously acquired.

The most widely used methods of teaching music reading have utilized the fixed do and the moveable do systems, singing scale letter names and numbers have been variations of the syllable methods. There have been periods of using the drill to song sequence and periods of using the song method, in which tonal patterns are learned as they appear in songs.

The use of syllable names is a device for aiding the observation of tonal relationships. According to Birge the tonic sol-fa began to be used in England about 1840. Started by Elizabeth Glover, it was perfected by John Curwen, and became the accepted method of primary music education in the British schools.²⁵ Curwen's tonic sol-fa system was reinforced by a system of hand signs, whose use in this country has been somewhat revived through methods books such as the one written by Mary Helen Richards. The tonic sol-fa method is commonly known as the moveable do system since any note may be do and a scale using the other syllables is sung on that tone. This system becomes rather awkward when used with nusic which contains modulations.

The fixed do system utilizes c as do regardless of key. This system was used extensively in France, Italy and Belgium. It was advanced in this country through the prevalence of instrumental study.

Cleo Silvey ²⁶ conducted a study to determine the personal reactions to the solmization system of teaching music reading. For surposes of comparison and in order to check on degree of retention hree levels of musicians representing various distances away from he elementary school were used: high school students, college stulents and church-municipal groups. There were 1804 subjects. They were presented a questionnaire requesting that solmization be rated long with six other factors that may aid music reading. The factors used were: home training, private study, experience in singing, olmization by numbers, relative position and by unison in the rades. Solmization was ranked from fourth to sixth in this survey. The investigator concluded that solmization does not yield results which carry over in later years of musical activity that would justify he emphasis placed on it in the elementary school. This view would be contradicted by many music educators.

Some music educators have advanced the idea of using only olk song material in music reading. Its basic difference from other nethods is the avoidance of material especially composed to provide rill on certain notational aspects.²⁷ Notation is treated as incidental the aesthetic experience in music. There is no set sequence for atroduction to musical elements.

Another method centers on the use of the tonic chord and eighboring tone material. A rote song, based on the tonic chord guration, is first taught aurally for future visual study.²⁸ In learning it, sol-fa syllable, or a neutral syllable may be employed. It is all that the approach through the tonic chord presents a basic ocabulary for the learning of music. The songs are analyzed as to lentical contrasting phrases and the phrase structure is made the enter of the learning process.

The system of eurhythmics developed by Jacques-Dalcroze inolves the use of rhythmic physical movement, listening, solfege, imrovisation and the general stimulation of artistic and musical sensiilities. He places ear training as the initial step of music learning. y means of movements of the whole body, students are equipped realize and perceive rhythms.²⁰ George H. Kyme³³ contrasted the results of teaching music reading with conventional notation and shape notes. The experimental groups were taught using the seven-shape notation developed by Jesse B. Aikin in *The Christian Minstrel* (1846), a notation which is derived from the four-shape system of *The Easy Instructor*. The subjects in this study were 183 fourth and fifth grade students from various schools in the San Francisco Bay area. Results of the study revealed that the experimental groups were superior in music reading ability in all the situations compared.

Music reading has been approached through creative projects. Students are encouraged to use music as a means of expression. They might create tunes for a favorite poem and have it written in notation by the teacher, from which a learning situation develops. The creative approach requires a rich background of listening and singing experience.

A method of teaching can not be controlled by a strict sequence including every minute detail. There are probably as many methods as there are teachers. A method should be thought of in terms of the general end to be achieved and the broad effects which will be produced in students.

There have been many studies conducted which have attempted to evalute various methods of teaching music reading. The more recent ones have been concerned with the application of the newer educational developments to music.

Since music is auditory-visual phenomen, it would appear that the use of audio-visual aids would greatly enhance a music reading program. Doris Hutton³⁴ compared the results of teaching reading with and without the use of special visual materials. Two sections of a fourth grade class, alphabetically grouped, participated in the study.

At the beginning of the year, each group was tested as to sight reading ability by presentation of the Bach chorale, "Oh, Morning Star," from New Music Horizons, Book Four. At the end of the year the test was repeated.

The experimental group was taught music reading with the aid of flash cards, musical games, and slides used with the opaque projector. The flash cards contained the intervals of all the songs taught during the year. The musical game used was one similar to Bingo with the cards containing musical symbols. The slides contained the music to simple folk tunes with both the titles and words omitted.

Although there was a significant increase in music reading ability apparent in both groups, the experimental group scored higher than the control group in the final music reading test. It was felt that audio-visual materials could be utilized effectively in the teaching of music reading.

Music reading films were produced by Ralph Rea³⁵ which would force the student to read ahead of where he is playing and prevent eye regression. This would develop visual memory and give practice in sight reading. Varied keys, rhythms and other elements were used in the musical materials. Twelve films were produced under the general title "A Training Program to Improve the Sight Reading Ability of Cornet and Clarinet Players . . . Adapted with permission from publications of Rubank, Inc."

Each film bears a title and the material used in progressively more difficult.

The films progressed in this manner: presentation of an "eyelead" unit containing time and key signatures with accompanying vocal instructions, the tempo was given by the click of a metronome, the subject began playing. Once he started playing the music was projected from two to eight notes ahead of his performance. The control group practiced music reading from conventional manuscripts.

Although the results of the experiment were inconclusive, this study provides a basis for the production of similar courses of study.

Programmed learning has attracted much attention since the advent of the automatic testing machine in 1920. Several experiments have been conducted utilizing taped materials to develop aural perception in a structural learning situation. Programmed learning is characterized by these factors: (1) material to be learned is presented in a logical series of small steps (usually referred to as frames) which lead from the known to the unknown; (2) a response to each of the steps, or frames is given by the student, and (3) the student is provided with immediate knowledge of the accuracy or the inaccuracy of his response. The material is self-instructional and permits the student to move at his own pace.

Carlsen⁸⁷ programmed a melodic dictation course which was printed in book form and the melodies were recorded on magnetic ape. The completed program, consisting of 617 frames, was used n an experiment conducted for the purpose of investigating cerain variables which pertain to the development of melodic dictation ibility by means of programmed learning. Among the problems investigated were: (1) the comparative effectiveness of branching (nature of response determines the sequence) and linear (steps presented in a fixed sequence) technique for programming melodic dictation, and (2) the value of programmed learning as a teaching nethod in melodic dictation.

The control group was taught melodic dictation by a teacher and the experimental group was taught solely by means of programmed instruction with sub-groups utilizing branching and linear programming techniques. Subjects for the experiment were college students in the first year of ear training.

Results of the study showed that there was no evidence of superiority of one method of programmed learning over the other. The difference in effectiveness of teaching method was more noticeable in the direction of more complex aural perception concepts. In the experimental situation the programmed learning technique proved more effective than the traditional classroom-teacher approach.

Programmed learning involving audio aids holds great relevance to music reading, in that the development of aural perception is basic to the reading skill. If these techniques are used concomitant to the teacher-classroom, more individualized instruction can be given which should result in greater gains for the student. It must be determined what portion of the program can only be taught by the teacher and what portion can be just as effectively taught by automated music training. In the words of Walter Ihrke: "The specific elements of music (pitch and rhythm) adapt themselves remarkably well to automated training and still keep their essentially musical character. Since reading notation, hearing the sounds to be produced, and then producing them on the machine is an integrated action, it is possible for the student to be completely engrossed in the music even while he is mechanically manipulating a machine."38 One of the major problems in music education today is the amount of time allotted to it in the public school system. Generally a small portion of this problem is the use of more efficient methods. If automated learning can provide this, it certainly warrants research into how it can be most effectively utilized.

The tachistoscope, an instrument in visual education, has reportedly been used with much success in developing language reading skills, spelling, typing, shorthand and the like. In a study conducted by Henry Hammer, tachistoscope methods significantly improved music reading skills. Subjects of the study were 45 fourth grade students. Melodic patterns were presented for practice by means of the tachistoscope.

Tachistoscope techniques are considered highly efficient and capable of retaining the student's attention and interest. The fact that the material is exposed for a brief period of time demands an alertness that is sometimes lacking in the classroom. One of primary values of automated devices may be motivation of the mind to work up to its capacity and at a faster rate. The short exposure time will certainly increase the span of recognition, increase the accuracy of perception, and develop the ability to organize the material so that it can be reproduced quickly. Extensive research should be conducted to determine the effectivness of this and other techniques in music learning.

SUMMARY

As yet there is no one method of teaching music reading that can be considered the best way. A variety of methods can be used if teachers are alert to the needs of the students and know when and how to apply them. Psychological theories of learning can also be the underlying principles for music reading.

Music reading should be neither neglected nor overemphasized. It should be integrated into the total music program and should be reinforced by other musical activities, such as singing, listening and creating. Goals can be flexible with each child moving at his own rate. Learning to read music should not be nor must it be an unpleasant experience. There are many activities which foster the natural spirit of inquiry and creativity which are inherent in every child. The skillful teacher knows how to utilize this characteristic to the best advantage in any learning situation.

Singing by note in no way precludes rote singing. Indeed, rote singing should precede the levels attained by note singing. Some songs can be sung using both methods, reading the familiar motives and singing the other parts by imitation. The teacher should determine when to help the students and when not to help. Music reading objectives should never hinder the presentation of rich and varied music.

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THE USE OF NOTATED EXAMPLES IN FIFTH-GRADE MUSIC APPRECIATION CLASS

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(The article by Miss Oberdin is reprinted here with the kind permission of the author and of the Journal of Research in Music Education. It follows the article by Mrs. Pierce for the purpose of comparison of differing points of view.)

The Editor.

Is the use of notated examples with fifth-grade students more effective in increasing the student's ability to recognize musical themes aurally than is a presentation without the use of notated examples? For many years book and record albums devoted to music appreciation have printed notated examples of themes. More recently, record albums designed for elementary schools have also included large strips of notated themes for class use. Cahn's study of problems in teaching music appreciation advocates the use of "devices which present musical concepts by relating them to sensory experiences such as sight, shape and movement."

A study similar to the one presented here was conducted by Smith using 101 college students as subjects.² He concluded that there was a significant difference in ability to recognize themes when notated examples had been used in the presentation. This difference remained whether it was tested immediately following the presentation or at later intervals. The ability to read notation appeared to have no significance. While musical aptitude seemed to increase the value of the examples, they remained significantly valuable to all.

No attempt was made in the earlier study to discover any relationship between IQ and the value of the examples. Neely's study found a positive relationship between IQ and the ability to notate rhythmic patterns. He also found that high-IQ students made more improvement on achievement tests. There has been some disagreement on the relationship of IQ and musical ability. This disagreement probably stems from the difference in factors tested on various musical ability tests. More research needs to be done to determine the factors which truly represent musical ability. A larger IQ range would probably be present more in an elementary school situation than among subjects selected from a college group.

The individual's musical development proceeds in a logical sequence. Mursell has listed a number of tentative growth gradients in music.⁵ Petzold finds that age and development of auditory perception are related.⁶ The relationship is stronger at a three-year interval than at a one- or two-year interval. Some support of this is found in Bokelheide's study which discovered that eight- and nine-year-old children had not developed to a high degree the ability to

relate the aural to the visual. Colwell finds that children lack training in learning to listen with understanding and discrimination. In another study he concluded that pupils do not progress in achievement yearly. Thus, children may have been afforded many opportunities to hear music and yet have gained little knowledge or development from the experience. Physical development, as evidenced by grade level, and musical development, as represented by fewer years of possible exposure, could make former findings concerning use of notated examples invalid as applied to fifth-grade students.

Although prior research would certainly give a strong indication of the validity of the hypothesis tested, it would seem unreasonable to ignore the possible effects of maturation, musical development, and general intelligence.

The Experimental Design

The two fifth-grade classes used for this study were selected purely on the basis of availability. The subjects included all students in these two classes in one elementary school located in Lemon Grove School District in San Diego County, California. Both classes contained heterogeneous ability groups. A total number of fifty-eight children were included. Of these, twenty were girls and thirty-eight were boys with the sexes being fairly evenly divided between the two groups.

Twenty musical themes were selected, ten of which were presented to both classrooms, while the remaining ten were included in the final test as unfamilar themes. The ten themes presented were then placed in numerical order, one through ten, so that the odd-and even-numbered themes were matched in difficulty as far as possible.

All students in the experiment were then given the Drake Musical Aptitude Tests, Form A, and the Kwalwasser-Ruch Test of Musical Accomplishment. The IQ scores from the Scat-Step Tests were already available. The two classes were designated A and B. Each group served as both control and experimental on a type of rotation design. Group A used notated examples on all odd-numbered themes while Group B used notated examples on all even-numbered themes. The themes were presented in two sessions each week, with two themes being presented in each session. Recordings from the Bomar Orchestral Library were used in the presentation of the themes as it was felt that this was the most functional type of presentation. The experiment was conducted during a three-week period, with a test for recognition of themes being given during the final week.

The taped test for recognition of themes included twenty piano renditions of melodic themes each designated with a letter name and played in random order. Each student was given a test instrument on which he scored each theme as familiar or unfamiliar; if the themes were familiar, the student had the further option of matching the letter name given on the tape with the correct title on the test instrument. The test used piano renditions of melodic themes to avoid reliance on specific instrumentation as a variable aid to memory. Each student received two test scores, one for recognition of themes on which notated strips were used, and another for recognition of themes presented without notated strips.

Treatment of Data

Several comparisons were made possible by this research design. Group A used notated examples of odd-numbered themes but did not use examples on even-numbered themes. When a t-test was computed on the difference between the scores, there was no significant difference.

Group B used notated examples on even-numbered themes, so a t-test was computed on the difference between scores for Group B. In this case the t was 2.49, which meant there was a significant difference in class B when the strips were used. This difference opened the possibility that the even-numbered themes were more easily recognizable than the odd-numbered themes.

The design allows for a further comparison by checking the difference in the scores on the odd-numbered themes in each class, considering A as the experimental group and B as the control group. The difference in scores on the even-numbered themes was also computed, considering B as the experimental group and A as the control group. If the use of the strips was of significance there should have been a significant difference in favor of the experimental group in each case. However, this did not occur. There was no significant difference in either computation. Therefore, one must assume that, although the even-numbered themes might be more easily recognizable, there is still not significant improvement when notated examples are used in presentation. While the odd-numbered themes may have been more difficult to recognize generally, there was no significant improvement in scores when notated examples were used.

Factors Influencing Significance

It appears that although Smith's study finds notated examples of value to all college students in his experiment, they were of no significant value to fifth-grade students. There are four possible factors in the comparisons of the two groups of subjects which might have influenced the difference in results between the two studies. These four factors present in the fifth grade experimental groups include: (a) possible larger variance of IQ; (b) the use of both sexes; (c) possible greater variance in knowledge of notation or musical aptitude; and (d) age and maturation. These four factors were considered separately to discover which one might have had the greatest influence.

College students may possibly have a higher average IQ than the average elementary school class. To eliminate the possibility of difference in range of IQ affecting the results of this experiment, the children with high IQ's and those with low IQ's were grouped and checked separately. Again the results showed no significant differences.

No male subjects were used in the earlier study as it was conducted at a women's college. Therefore, a statistical check was made separately of boys and girls to check the possibility of the use of boys having affected the data. However, results showed that neither boys nor girls made significant improvement in scores with the use of notated examples. Thus, it was not the inclusion of both sexes as subjects that made the difference in results between the two experiments.

The pretest for knowledge of musical notation found that all students in the experiement fell in the same low scoring range. Therefore, no separate statistical check was made for knowledge of notation. Children with high and low musical aptitude scores were grouped, and a t-test computed on their scores. Again, no significant lifference was found in either case.

After eliminating the factors cited above, the only remaining possibility of difference between the results of the two experiments would be the maturation factor. It would seem that ten- and eleven-rear-old children have not matured enough for the notated examples to be of any significant aid in recognizing themes.

The conclusions reached in this study appear as follows:

General Conclusions

- 1. There was no significant difference between the aural recognition of a theme which was presented with the aid of a notated hematic example and one which was presented without a visual aid when fifth-grade students were used as subjects.
- 2. The factor of intelligence had no effect upon the results of he experiment. Neither the high-IQ nor the low-IQ subjects made significant improvement in scores when a notated strip was used n the presentation.
- 3. The factor of sex had no effect upon the results of the experiment. Neither the girls nor the boys made a significant improvenent in scores when notated strips were used in the presentation.
- 4. The factor of musical aptitude had no effect upon the results of the experiment. Neither the children with a high or a low musical aptitude made any significant improvement in scores when notated strips were used in the presentation.
- 5. From observing the results of this experiment, it would apear that fifth-grade students have not yet reached a maturation evel on which the notated strips would begin to be of value.

Two questions arise as a result of this experiment which might be considered for further research. First, at what developmental stage do notated examples begin to be of value to students? Second, does this inability by fifth grade students to relate the visual and the aural to any great degree have implications in other subject areas?

FOOTNOTES

¹Meyer Martin Cahn, "Problems of Music Appreciation Teaching as Perceived by Students and Teachers in Northern California Colleges and Junior Colleges," unpublished Doctoral dissertation (Stanford University, 1960).

²Edgar H. Smith, "The Value of Notated Examples in Learning to Recognize Musical Themes Aurally," *Journal of Research in Music Education*, I (Fall 1953), 97-104.

⁸James Kilford Neely, "An Evaluation of Tests Given to Interrelate Intelligence, Aural Acuity, and Musical Achievement for Purposes of Prognosis in Ear-Training," Council For Research in Music Education, Bulletin 5 (Spring 1965), 51-53.

'See: Raleigh M. Drake, "The Effect of Ear Training on Musical Talent Scores." Journal of Musicology, IV (February 1945), 110-112; Edwin Gordon, "A Study to Determine the Effects of Training and Practice on Drake Musical Aptitude Test Scores," Journal of Research in Music Education, IX, (Spring 1961), 2-6; Wolner and Pyle, "An Experiment in Individual Training of Pitch Deficient Children," Journal of Educational Psychology, XXIV (November 1933), 602-608; Ruth F. Wyatt, "Improvability of Pitch Discrimination," Psychological Monographs, LVIII (1945), 1-58.

⁵James L. Mursell, "Growth Gradient in Music," Music Educators Journal, 35 (January 1947), 18-19.

⁶Robert G. Petzold, "Development of Auditory Perception of Musical Sounds by Children in the First Six Grades," Journal of Research in Music Education, XI (Spring 1963), 21-26.

⁷Viola Bokelheide, "Some Techniques of Assessing Certain Basic Listening Skills of Eight and Nine-Year-Olds," Council For Research in Music Education, Bulletin 4 (Winter 1965), 70-74.

⁸Richard Colwell, "Evaluation: Its Use and Significance," Music Educators Journal, 49 (Feb.-Mar. 1963), 45-49.

⁹Richard Colwell, "The Theory of Expectation Applied to Music Listening," Council For Research in Music Education, Bulletin 5 (Spring 1965), 17-20.

10 Smith, loc. cit.

RAMOS AND SOME POLEMIC THEORISTS OF THE RENAISSANCE

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(Note: Although a theoretical paper, the information and point of view seem especially relevant to music educators of the twentieth century. The Editor)

Every thoughtful man who hopes for the creation of a contemporary culture knows that its development hinges on a central problem — finding a coherent relation between science and the humanises. Men of the fifteenth and sixteenth centuries faced this problem to less than we face it today. Some of them, as well as we, slowly realized that their educational system was not only failing to face up to the problem but also was standing still while the world around them pushed forward with tremendous speed. As usual only a few recognized the problem and were willing to cope with it — in many cases, only to have their efforts rewarded with stones.

The Renaissance was, among other things, a time when individualism was a dominant characteristic. Speaking of the sixteenth cenury, Bronowski and Mazlish remark: "The ability and power of he individual — whether artist or statesman — was given great espect and perhaps exaggerated importance." As man began to have more confidence in himself and less in the ability of his creator to intervene in his daily endeavors, he began to ask more questions about his world. Leonardo's interest in bone structure as well as skin color, his elaborate drawings of machinery, the nude in painting — all bear witness to this concern with what lies beneath the surface and of the individual's right to express himself.

It is a short step from the general to the specific. The learned nusicians of the early Renaissance were products of educational ystems deeply rooted in Greek tradition. With the Renaissance of lassicism came a renewed interest in this heritage, a reactivation of the desire to re-establish Greek ideals, now given impetus by the pportunity to study actual writings rather than secondary sources. n addition there was the immigration of Greek and Arab scholars o all parts of Europe, particularly Italy, after the fall of Byzantium. Thus the Renaissance theorist tended to be a product of two forces: in the one hand, he was Greek scholar, pursuing classic ideals, reseating over and over again concepts, definitions, and supersititions ike a creed, believing in the power of numbers with religious-like ervor; on the other hand, he was a revolutionary, able to see the vorld around him changing and anxious to be a part of this change, eeling a new, unknown power in himself, and feeling the need for xpression. Leonardo may be a personification of this Renaissance nigma, but so also might be Ramos de Pareja.

Bartolome Ramos De Pareja

Ramos (ca.1440-ca.1491) was a Spaniard who lectured in Salamanca before he traveled to Bologna, possibly in anticipation of being granted a chair of music there — a position he never received.² In 1482 he published his Musica practica, a significant work not only as one of the earliest incunabula on music, but also because of the revolutionary ideas it presented. Stevenson points out that in most ways Ramos was old-fashioned rather than progressive.3 For example, his rules of counterpoint nearly conform with those found in the Practica musicae (1496) of Gaforio, one of his severest critics. In his discussion of the psychological connotations of the eight church modes, he repeats authors of two centuries earlier. He feels that the various modes derive their character from various planets or the sun and moon (see Stevenson, p. 61), which accounts for the emotional effects of the various modes. He includes a discussion of musica mundana and is concerned with number symbolism. delights in puzzle canons and enigmas, and he includes in his treatise a canon notated on a circular staff.

Monochord Division and Interval Ratios

But it was Ramos' efforts to simplify and faciltate the educational methods that brought about the most innovations and controversy. One important opposition to tradition was his division of the monochord - although even in this respect he shows his Boethian-Pythagorean heritage. Adkins classifies his division as belonging to Pythagorean tradition among Renaissance monochord treatises, a position which Reese also assigns to him.6 This tradition saw the great care for accuracy and efficiency in monochord division give way to disorganization and inefficiency in this regard. Another aspect of Pythagorean tradition was the reverence for the number 10, the sum of the first four integers from which all consonances were derived - 2:1, 3:2, 4:3. Ramos declared that he is familiar with Boethius method of monochord division but feels that ". . . although this division is useful and pleasant to theorists, to singers it is laborious and difficult to understand. And since we have promised to satisfy both, we shall give a most easy division of the regular monochord."8

Ramos continues, revealing further the other, the Renaissance, facet of his personality:

In the first division of our regular monochord we have said that Boethius subtly divided ours by vulgar fractions and with respect to continuous quantity in order that the student may not need first to know both arithmetic and geometry. For to require this would be to fall into the error which we have forbidden ourselves, seeing that we have said that he will need neither of these things to understand our teaching, provided he be informed in the first rudiments. Thus we have said that a string was to be divided in half, or that a quantity was to be doubled, tripled, or divided by three, expressions most familiar to everyone.

These statements lend support to Strunk's ideas in the preface to this translation, that Ramos is "... scarcely aware of the implications of what he is advancing and claims no special virtue for his division beyond its ready intelligibility and the ease with which it is carried out."

What Ramos did was merely extend the Pythagorean system of monochord division based upon super particular prime numbers, but the result was a new tuning system, the first non-Pythagorean chromatic tuning, and ". . . the most disputed of all monochord division." All consonances were classified according to the relationships that exist among the numbers 1 through 6. The Pythagorean lifth is expressed by the ratio 3:2 (or 6:4). The harmonic mean of these numbers is 5, so the thirds within the fifth have the ratio 5:4 (major), and 6:5 (minor). The whole tone is arrived at in the same manner. The major third 5:4 (or 10:8) has a mean of 9. Therefore, the whole tones exist in two sizes, 10:9 (minor) and 9:8 (major). Ramos gave instructions for a chromatic division, but it is not necessary here to do more than summarize his results in order to show the nature of his innovations. The ratios of the C major scale were as follows:

The 5:4 and 6:5 thirds were the pillars of the entire system, and to achieve them Ramos had to sacrifice the symmetry of the raditional Guidonian hexachord system. The ut-re-mi of the "C" nexachord would have to be sung differently from the ut-re-mi of the "F" hexachord — the former requiring the small whole tone, then the large, and the latter the large and then the small. In adlition, although several of the fifths were acceptable, the g-d fifth and its octave were flat because of the inclusion of the two 10:9 whole tones within it. The minor thirds b-d and g-b flat were also maller (32:27) than the 6:5 ratio of the others.

Thus Ramos revived a tetrachord division first suggested by Didymus, but he did not think of his system as a form of temperanent — nor even as a new theory of proportions, but "... as a ractical and simple division of the monochord." Ramos' tuning system in many ways created more problems than it solved. It did not, for example, eliminate the Pythagorean comma (the difference between the twelfth, fifth and the seventh octave), but merely added to it the syntonic comma 81:80 (the difference between the 5:4 third and the Pythagorean third).18

Perhaps writers such as Riemann, Reese, and Adkins do Ramos in injustice by implying that he seemingly stumbled unknowingly nto the beginning of a revolution, since the second of the three ways in which Ramos opposed musical tradition is the natural result of his tuning system. He devised a new set of solmization syllables, pased on the octave rather than the sixth:

"C" would be sung with either psal or tas according to whether the melody ascended or descended, but both syllables used the same vowel. The two places where a semitone might or might not occur (A-B flat, B-C) were both signaled by syllables ending in "S". 14 Octave solmization, which we take for granted now, was violently rejected by many of Ramos' contemporaries.

Ramos also broke with tradition in another way by declaring that tritones were permissible, and that succesive fifths were tolerable provided that one of the two was an imperfect fifth. Examples of such writing (even when only two parts are sounding) have been found by Stevenson in the polyphony of several Spanish composers flourishing around 1500. This portion of Ramos' theory does not bear the significance of his other innovations, since in it he is probably only reflecting what he heard in much of the music of his day. Ramos also described imitative procedures which were new at that time.

Controversy

His most radical innovations, particularly the revision of the ratios for thirds and the recommendation of a solmization system based on the octave, released a storm of protest and defense following the appearance of his Musica practica. Burzio protested in his pamphlet Musices opusculum (1487) the slur on the memory of Guido and further declared that the diatonic genera must be used because "' . . . the mother church chose from these three . . . genus.'"15 (Incidentally, this same work of Burzio contained the first known, complete, printed part-composition).16 Ramos' pupil Spataro supported him in the controversy and countered with an Honesta defensia in Nic. Burtii Parmensis opusculum, (1491), pointing out that Burzio had no conception of the most pressing problem - the necessity of equalizing the two sizes of whole tones through some kind of temperament.17 (Apart from his controversial writings he also published a treatise on the interval of the fifth, 1531).18

Gaforio renewed the attack in his Practica musicae (1496), as did Jacobus Faber Stapulensis, a mathematician, in Elementa musicalia (1496) — even though he rejects the Ramos tuning for seconds and sixths for the Pythagorean ratios, he remarks: "The semiditonus (the minor third) lies between the ratios 6:5 and 7:6, although it is pleasing in sound to the ear, it is nevertheless, not to be regarded as a consonance (!) . . . The fact that a semiditone sounds pleasing to the ear is proved by one's experience in listening to musical compositions. It is not a consonance, however, because its ratio (32:27) is not super-particular . . "19

"These pieces . . . together with Gaforio's Apologia of 1520 and Spataro's Dilucide . . . demonstratione of 1521 . . . show how hard it was for most theorists to bring theory in line with practice." As shall be shown, the controversy was kept alive well into the sixteenth century, mainly by Spataro and Gaforio.

Gaforio

The Italian Renaissance did not want for theorists, and Gaforio 1451-1522) was one of the most distinguished of them, as witnessed the number of times he is quoted in other treatises — includg several by Spaniards who sided with him and against their own untryman, Ramos.²¹ In the biography at the end of *De harmonia usicorum instrumentorum* (1518) Gaforio states that he engaged public debate with Tinctorus in Naples in 1480.

Around 1480 we find a flowering of music theory in Italy which is without comparison: in Bologna, Bartolomeo Ramis and Giovanni Spataro; in Parma, Nikolaus Burtius, pupil of the recently deceased Johannes Gallicu, and Philippus de Caserta; in Milano, Franchino Gafori; in Lucca, John Hothby; and in Naples, Tinctoris. Not only by means of debates |Gaforio and Tinctoris, for example| but also by means of heated polemical pamphlets all sorts of theoretical questions were brought closer to their solution, and foundations were laid for the last, but not least, part of music theory, the theory of harmony. This extraordinary activity in the realm of theory is obviously only a phenomenon accompanying the great upsurge which composition had been undergoing since the second third of the century and which had not yet reached its zenith.²²

Gaforio's writings are invaluable as a contemporary account of usical activities. He was also a scholar who had Latin translations ade for his own use of various Greek treatises, including those of ristides Quintilianus and Ptolemy.²³ His Practica musicae seems contain the earliest mention of temperament, a discovery that arbour ascribes to Riemann.²⁴ Among his clearly-stated counterint rules, Gaforio discusses the organists' assertion that fifths untrgo a small amount of diminution, implying that some sort of mperament was common practice and may even have originated ng before. In addition, Gaforio was a prolific composer and editor; e so-called Gaforio codices contain sacred compositions of his and her composers active in Milan. Gaforio's style, according to Reese, pears to be influenced by Dufay and Josquin, but contains an ement of harmonic boldness.²⁵

As we have seen, Ramos willingly sacrificed a fourth and fifth order to obtain three major thirds in the 5:4 ratio, three minor irds in the 6:5 ratio, and all diatonic semitones in the 16:15 ratio. its sacrifice the Pythagoreans such as Gaforio, whom Ramos rerred to as Guidonis sequaces,²¹¹ were willing to make.

The Controversy Continues

In the second and third decades of the sixteenth century, the ntroversy intensified. Gaforio published *De harmonia musicorum* strumentorum, in which he discussed chordal formations, referred the 4th, 5th, and octave as "natural" consonances, and 3rds and

6ths and their compounds as "irrational" consonances (c.f. previous quote from Faber). He also understood Ramos and spoke of a division of the two-octave system into 24 equal parts, with twelve equal semi-tones within the octave — although he does not seem to agree with the proposal. He accomplished such a division by tuning the intervals 3:2, 4:3, 5:4, 6:5, 5:3, 8:5, but he disputed the correctness of them.²⁷ It is interesting to note that Adkins, who closely examined a number of monochord treatises, states that although Gaforio used a Pythagorean division, he showed a general lack of acquaintance with the technique, and his efforts were rather clumsy.²⁸

The most interesting account in English²⁰ of subsequent events seems to be by Hawkins.³⁰ It is known that Gaforio was not afraid to voice his beliefs, and he had ample opportunity to do so, not only with publications but also from the lectern. The 1518 work further antagonized Spataro, who defended his former teacher in a small tract, *Utile et breve regule de canto*, as well as in several letters to Gaforio prior to 1520.

In that year Gaforio, nearly 70 years old, published Apologia Franchini Gafuri musici adversus Joannem Spatarium et complicea Musici Bononienses, in which he replied to accusations of gross ignorance and vanity that had been thrown at him, not only by Spataro but also by others — including Aron. The cause of the controversy was not only Ramos's monochord division and his recommendations concerning solmization by the octave, but some aspects of mensural notation as well. The battle was carried on by Spataro with the publication in 1531 (nine years after Gaforio's death) of Tractato di musica.

Hawkins does not hide his admiration for Gaforio, and feels that the attacks upon him were prompted more by jealousy of Gaforio's exalted position than for any other reason.³¹ At any rate, neither adversary can be commended for his gentlemanly use of language.

To speak in the mildest terms of Spataro's book it is from beginning to end a libel on his adversary, who was a man of learning and integrity; and nothing but the manners of the age in which he lived, in which the style of controversy was in general as coarse as envy and malice could dictate, can excuse the terms he has chosen to make use of; and to say the truth, the defence of Franchinus [Gaforio] stands in need of some such apology, for he has not scrupled to retort the charge of ignorance and arrogance in terms that indicate a radical contempt of his opponent.³²

Later Hawkins includes a translation of a portion of Gaforio's Apologai . . . from which we need to quote but a few lines:

You, Spartarius, who are used to speak ill of others, have given occasion to be spoken against yourself, by falling with such madness on my lucubrations, though your attack has turned out to my honour. Your ignorance is scarce

worth reprehension; but you are grown so insolent, that unless your petulance be chastised, you will prefer yourself before all others, and impute my silence to fear and ignorance. I shall now make public your folly which I have so long concealed . . . 33

We look in vain for such colorful language in the Journal of the American Musicological Society!

Innovations Gradually Accepted

Spataro and Ramos had their defenders as well as their adversaries. Aron was a friend of Spataro, and his *Thoscanello in musica* (1523) is one of the most significant treatises before Zarlino.⁸⁴ The many subjects dealt with include the first explanation of meantone tuning, and with pure (5:4, 6:5) thirds, but with the fifths flattened by one quarter of the syntonic comma.³⁵

Fogliani adopted Ramos' system of tuning in his *Musica theo-* rica and improved upon it. He advocated two "d's" and two "b flats," but was willing to compromise with a mean tuning for each of these notes.³⁶

Vicentino, perhaps the most controversial figure of the time, carried chromatic tuning to such an extreme that he suggested dividing the octave into thirty-one parts, and built two instruments to demonstrate his proposals. For his effort he became involved in a controversy that resulted most probably in more personal consequences than were suffered by either Ramos or Spataro — a controversy³⁷ that makes as interesting reading as the one we are presently concerned with.

A radical Netherlands composer, theorist, and editor by the name of Waelrant (b. 1519) advocated solmization by the octave rather than by the hexachord. It is known that he visited Italy during the third or fourth decade of the sixteenth century, and Lowinsky feels that he was probably much interested in the furor that was still generating around the revolutionary ideas of Ramos and his followers.³⁸

Finally, Zarlino further developed Ramos' innovations and in spite of even more venomous attacks the new teachings gradually became accepted. The Pythagorean tuning system eventually was replaced, first in practice and finally in theory. The concepts of consonance and dissonance gradually changed. "Consonance" no longer denoted relationships that could be shown with combinations of the numbers 1 to 4, and "dissonance" all other combinations of notes. Consonance as we know it came to be associated with "pleasure" and/or "relaxation", and dissonance with "displeasure" or "tension."

Ramos did not advocate equal temperament, as some have suggested, but to paraphrase Barbour, he is, as the first of the innovators and reformers, "... worthy of respect accordingly." The con-

troversy he started — knowingly or unknowingly — outlived all of the original protagonists, but he participated in the beginning of an age when men had faith in themselves and believed their world to be better than the preceding one — an age that would see the almost complete revision of all knowledge.

FOOTNOTES

- 1. J. Bronowski and Bruce Mazlish, The Western Intellectual Tradition (New York: Harper, 1961), 35.
- 2. Nicolas Slonimsky, ed., Baker's Biographical Dictionary of Musicians, 5th ed. (New York: G. Schirmer, 1958), 1305f.

3. Robert Stevenson, Spanish Music in the Age of Columbus (The Hague:

Nijhoff, 1960), 56ff.

4. Monochord — a device or instrument consisting of a single string stretched over a wooden resonator. It included a moveable bridge so that the length of the vibrating portion of the string could be varied. The monochord was widely used in ancient Greece and in the Middle Ages to explore and demonstrate the laws of musical acoustics.

5. Cecil Adkins, The Theory and Practice of the Monochord (Ph.D. dissert., State University of Iowa, 1963), 199.

6. Gustave Reese, Music of the Renaissance, 2nd ed. (New York: W. W. Norton, 1959), 586.

7. Adkins, loc. cit., 199.

8. Ramos, from "Musica practica," Source Readings in Music History, ed. by Oliver Strunk (New York: W. W. Norton, 1950), 200-204.

9. Ibid.

10. Adkins, op cit., 243.

11. The above figures and those that follow represent a condensation of material in J. Murray Barbour, Tuning and Temperament (East Laning: Michgan State College Press, 1951).

12. Hugo Riemann, *History of Music Theory* . . , trans. by Raymond Haggh (Lincoln: University of Nebraska Press, 1962), 393.

13. Ibid., 282f.

14. Stevenson, op. cit., 55ff

15. Edward Lowinsky, The Secret Chromatic Art in the Netherlands Motet, trans. by Carl Buchman (New York: Columbia University Press, 1946), 112.

16. Reese, op. cit., 155.

17. Riemann-Haggh, op. cit., 282f.

18. E. van der Straeten, "Spataro," Grove's Dictionary of Music and Musicians, 5th ed., 10 vols., ed. Eric Blom (London: Macmillan & Co., 1954-61), VIII, 235.

19. Riemann-Haggh, op. cit., 283.

20. Reese, op. cit., 586f.

- 21. Stevenson, op. cit.. 50-101, contains a resume of Spanish musical thought from 1410-1535.
- 22. Riemann-Haggh, op. cit., 273.

23. Reese, op. cit., 178ff.

24. Barbour, op. cit., 25.

- 25. Reese, loc cit., which also contains a good survey of Gaforio's precepts. His theoretical output is also thoroughly discussed in Riemann-Haggh, op. cit., 284ff. The codices are discussed by Knud Jeppesen, "Die 3 Gafurius-Kodizes der Fabbrica del Duomo, Milano," Acta Musicologica III (1931), 14ff.
- 26. Stevenson, op. cit., 76f.
- 27. Hiemann-Haggh, op. cit., 284ff (also contains translated excerpts taken from De harmonia . . .).
- 28. Adkins. op cit., 199.
- 29. Giov. Spataro, Dilucide et probotissime demonstratione . . . contra certe frivole et vane excusatione da Franchino Gafurio (maestro de li errori) in aducte (1521), ed. by Johannes Wolf, 1925, contains a German translation as well as a facsimile of the original, with comments on the controversy.
 - Knud Jeppesen, "Eine musiktheoretische Korrespondenz des fruheren Cinque cento," Acta Musicologica XIII (1941), 3ff, discusses, in German, letters exchanged between Spataro and others.
- 10. John Hawkins, A General History of the Science and Practice of Music, new ed., 3 Vols (London: Novello, 1853), I. 288ff.
- 11. Ibid.
- 12. Ibid.
- 3. Ibid.
- 14. Strunk, op. cit., 205.
- 15. Reese, op. cit., 530ff.
- 6. Barbour, op. cit., 108.
- 7. For good discussion of this controversy, as well as partial translations of selected writings of Vicentino, see:
 - Henry Kaufman, "Vicentino's Archiorgano, an annotated translation," Journal of Music Theory V (1961), 32-53.
 - Henry Kaufman, "Vicentino and the Greek Genera," American Musicological Society Journal XVI (Summer, 1953), 325-46.
 - Vicentino, L'antica musica ridotta alla moderna practica, 1955, facs. ed., ed. by Edward Lowinsky (New York: Barenreiter, 1959).
 - Robert Wienpahl, "Zarlino, the Senario, and Tonality," American Musicological Society Journal XII/1 (Spring, 1959), 27-41.
- 8. Lowinsky, op. cit., 70.
- 9. Barbour, op. cit., 4.

INDIVIDUALIZED INSTRUCTION FOR GENERAL MUSIC CLASSES INVOLVING THE USE OF SLIDES PROJECTED IN SYNCHRONIZATION WITH PREFECORDED TAPE

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The camera enthusiast and the hi-fi hobbyist both know how simply one can prepare a professional-appearing 35 mm. slide show by prerecording comments and sound effects on one channel of a stereophonic tape recorder and recording sixty cycle beeps at appropriate points on the second (right hand) track, which activate the cycling mechanism of the slide projector. This relatively inexpensive system seemed worth exploring as a possible means of providing individualized instruction for General Music classes. The author was the recipient of a grant from the Missouri Arts Council to acquire the equipment necessary to develop the project. Equipment purchased (frequently already available in public schools) was as follows:

- 1. A stereophonic tape recorder and playback unit \$175.00
- 2. A carousel type 35 mm. 2x2 slide projector with remote control mechanism \$105.00
- 3. A sound synchronizer mechanism. (available at photography supply outlets) \$ 28.00

A 35 mm. camera was already available. The Arts Council also provided some additional funds for assistance of a professional photographer, something which would most often not be needed for similar projects, depending on the nature of the photos desired and the photograph skill of the teacher or student preparing the program.

The sequence in preparing the program is as follows:

- 1. Writing of the script, including all cueing of audio and video effects (see sample script below)
- 2. Taking and developing of the 35 mm. transparency slides.
- 3. Placing the slides in the carousel in the proper order.
- 4. Recording the audio portion of the program, including music, special sound effects, and spoken commentary while pressing the button of the remote control device, plugged into the synchronizer, at the appropriate times to record the 60 cycle beep which will automatically change, or cycle, the carousel.

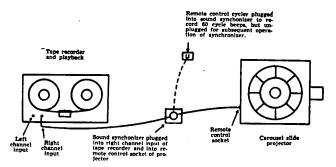
The resulting program can be used by individual students, by small groups, or even an entire class, but its primary purpose is thought to be to provide individual instruction to stimulate subsequent class room discussion and learning.

Principal features of this teaching device appear to be:

1. High degree of stimulation afforded students through audio and visual means.

- 2. Relative ease and economy in time and money in preparing programs especially designed for a particular group of students and a particular curriculum.
- 3. Potential for students to design and record their own programs.

The diagram below explains the procedure in the synchronization process:



(N.B. A piece of equipment which contains all of the features inluded in the units diagrammed above, but possessing the advantage of being completely self contained and portable is available for about \$500.00 from firms specializing in audio-visual devices.)

The script which follows is perhaps somewhat more elaborately prepared in terms of precise timing than is necessary for most programs; it is included here as a sample of the kind of preparation lesirable in preparing a program.

Procedure for set up:

- 1. Remove carousel projector from packing box. Also remove power cord and connect to projector (in back) and to wall recepacle. Point projector toward screen or light colored wall 10 to 20 eet away.
- 2. Remove front of tape recorder. Open access door on rear. Extend power cord and connect to wall receptacle. Remove sound synchronizer from access door. Connect long wire of synchronizer o terminal on front of tape recorder labeled Ext. Sp. Connect short vire of synchronizer to back of projector.
- 3. Place reel of tape on left spindle of tape recorder. Place mpty reel on right spindle. BE CERTAIN THAT THE NUMBER I' CAN BE SEEN ON BOTH REELS. Thread tape through slot in enter of the machine and up to the outside of the empty reel.
- 4. Remove carousel type tray which holds slides from packing lox. Place it on top of the projector. BE CERTAIN THAT GUIDE SLOT ON BOTTOM OF TRAY ALIGNS WITH GUIDE ON PRO-ECTOR. The number 0 should appear adjacent to indicator arrow.
- 5. Turn power switch on tape recorder to on position. Put mahine in play position and leave machine in play until all of the vhite tape has wound on empty reel and darker tape appears. AS

SOON AS DARKER TAPE RUNS ON TO EMPTY REEL STOP MACHINE WITH SAME LEVER THAT IT WAS STARTED. Depress counter reset button.

- 6. Turn power switch on back of projector to on position. (There is a low and high intensity position. Use the one which works best in your room.)
- 7. Focusing knob located above and to one side of lens should now be turned to focus slide 0 as clearly as possible. Experiment until the focus slide 0 is completely clear and easy to read.
- 8. Equipment is now ready to use. Control is done by moving play lever down to begin lecture and returning it to stop at the end. Tape should be rewound so that counter again reads 0. Machine is now ready for re-operation.

Recorded Lesson One Introduction to Twentieth Century Music

Title: Music in Society

Audio Effects	Time	e Script	Visual	Time	Position	
1. Rock dance	0"		1. Rock dance	0"	1	
2. Str. Qrt. tuning	12"		2. Str. Qrt.	12"	2	
3. Voladores	22"		3. Voladores	22"	3	
4. Applause	33"		4. Hands	33"	3 4 5	
5. Haydn minuet str. qrt.	41"		5. Str. Qrt. 2	41"	5	
6. Hammering	51"		6. Man hammering	51"	6	
7. Gregorian char	nt 57"		7. Illuminated ms.	57"	7	
8. Piano composition	1'11"		8. Pianist	1'11"	8	
1'25" 9 blank How much of what you just saw and heard is music? Did you like it? All of it? Part of it? What did it mean? Was it easier to put yourself in one "scene" than another?						
9. Rock dance (#1) 1'41"	e	9.	Rock dance #1	1'41"	10	
10 Str. Out	0,0,1	tuning migh	und of the strin		11 blank	
10. Str. Qrt.	23	10.	Str. Qrt. (#2)	2'3"	12	

Is it music? Does it refer to music? 13 Blank And the applause you heard? . . and the

Audio Effects	Time	Script	Visual	Time	Position
11. Voladores (3)	flutist for a	perched or religious o	ve music of a con a high poleremony adores (#3)	le playin . ?	
2'41"	thanis better music Which Is it s Is one What	the Mexics the musics or poorer? do do you pa matter of	f appropriates see bettter the sic for?	music? g quarte ock danc ness?	et e
12. Hammering		12. Ha about the ering?		3'4"	15
3'50"		13.	vably be efer to music Man in tails Girl in form	3'55"	16
4'6"	appro other paren	priate for of for another ts don't the late for an 14.	ing is considence occasion. er, although ink the latterything Same man and girl in "beat" attentions at the same man and girl in "beat" at the same man and girl in "beat" at the same man at the same man and girl in "beat" at the same man at the same man at the same at the sa	The some er ap-	17
		15 . :	20th C. score	4'16"	18
	with or an what	y kind of	entury music music? That apposed to b	's	
	Now,	if you thin	k music is ju	ıst this .	
13. Rock Dance (#1) 4'28" 4'44"		16. F	Rock Dance	4'28"	19
14. Str. Qrt. 4'44" Haydn 4'54"	Or ju may l		(#2) le thing, you a bit of	4'40" u	20

just a string quartet with you sitting there, all dressed up, quietly listening.

On the other hand, music can be and often is in the 20th Century a rejoining of many experiences which have frequently been separated in the Western world since medieval days.

5'57"

In many parts of the world through history, it has been unthinkable to separate playing, singing, poetry, dancing, acting . . .

In some twentieth century music we are returning to that conception, the joining together of several forms of expression into one. But sound, and its opposite, silence, remain central.

And many sounds which have not been admissable as music in the western world, are now admissable . . . even, possibly . . .

15. Hammering

6'05"

6'10"

19. Hammering 6'05"

22 23

(#6)

•

#6

In fact, the word music has become

very difficult to pin down. We can define it, perhaps, as: "Sound and silence organized in some way, in some environment." But that doesn't really say very much. It merely seems to suggest that music involves sound homehow or other

... very inadequate, and it leaves out anything about good, better, bad, worse . . .

There are standards for making judgments which of course, keep changing and are different in different parts of the world, just as standards of dress, of morality, of speech, always have. We ourselves make the standards.

Then there is the matter of appropriateness. "I ain't going" may say it more clearly than "I do not choose to go" under certain circumstances.

In other words, the rules of grammar are not the same for all places.

This . . .

16. Rock (#1) 7'23"

7'33"

is more appropriate for this.

21. Rock #1 7'35" 24

than this

17. Qrt. Haydn 7'40" minuet (#5)

22. Str. Qrt. #2 7'40"

25

minuet (#5) 4'50" 7'50"

even though they are both dance music.

8'0"

Another way of 8'0" 26 defining music is to say that it is a way of behaving with organized sound and silence in a particular environment.

This seems almost to equate music with politics, a baseball game, a church service, a war, the construction of a house, placing the emphasis as it does on a manner of behaving.

If it does suggest this, you are on the right track.

All of these are human ways of behaving which involve rules or modes of behavior.

9'15"

24. Chess Board 9'15" 27
... which the participants make up and change even as they participate in an effort to make things work better, or differently, or more interestingly,

man and woman 28 A study of tradition would appear to be a study of the way man changes his rules of behavior. (This may put the emphasis differently than you have believed correct regarding tradition).

A skillful, or good, politician is one who konws thoroughly the rules and contemporary modes of political behavior, and can act on them with great expertise.

10'25"

25 Baseball Game 10'25" 29 A good baseball player is one who knows

the contemporary rules of baseball (Yes, they change too) and how to act on them with skill. A good baseball game is the result of a workable set of rules plus expert players.

18. Flute Music 10'45" 26. Flutist 10'45"

30

10'57"

. . . a good flutist . . .

. . . a good piece of music for flute . . . Get the idea? . . .

11'07"

Umpires, pitchers, spectators, everyone at a baseball game who baseball really participates has to share in an understanding of the rules and ways of behavior. The rules for music and about music are just as man-made as are the rules or customs for behaving in a classroom . . .

The rules concerning how you propose to a girl . . .

19. Here comes 12'06" the Bride - organ 12"13"

27 Kneeling man 12'06" Victorian dress

32

and we keep changing them all 28. Chess board

#24

12'18"

33

31

12'18"

So we keep making and learning new rules. This does not mean that the new rules or ways of behaving are unrelated to the older ways. Usually new ways and rules are modifications of the old

Nor does it mean that new ways are either better or worse than the old ones. They are just different.

20. Str. Qrt. 12'42" Haydn minuet #3

29. Str. Qrt. #2-12'42" 35

21. Electronic 12'51" Sounds

30. Electronic console

12'51"

36

13'05"

For example, you are going to discover that the Haydn Quartet and the music produced by electronic means are just as different as one would expect something to be, made by men living almost two hundred years apart: the rules have changed and they continue to change but that doesn't mean that the older and the newer are unrelated.

Audio Effects	Time	Script	Visual	Time	Position
22. Horses 13	'31"	31. 5	Stage coach	13'31"	37
23. Auto race sounds doppler effec	_	32. \$	Sports car	13'43"	38
		2	I'wo scores 20th C. and ditional	13'56" tra-	39

13'56"

So we will attempt a very general definition of music which should encompass twentieth century music and all kinds of music everywhere, whether it be church music, rock and roll, or whatever. Later in other lessons, we will be more specific about different types of music.

14'20"

33a. definition 14'20" 40
"Music is the science and the art of
using and arranging sound and its opposite, silence, in ways and situations
where it will have (similar) meaning
to everyone who participates in the experience. Visual and other experiences
may be joined with aural experiences
as an integral part of music."

24. Chinese 14'46" Classical Opera 15'02" 34. Chinese Opera 14'46" 41 Scene

This seems to suggest for example, that if you have never been to a presentation of classical Chinese opera, it would not at first be music for you but would be for someone else who had experience and understanding of this style and later it might become music for you.

25. "Virgen de 15'30" 35. Bull Fight 15'30" 42
15'46" A bullfight may well appear to many people north of the Mexican border as the silliest and cruellest kind of butchery (or it did until Hemingway started explaining it). Perhaps this is not an altogether fair analogy because sound and rhythm arrangements may all by

themselves occasionally have a more innate, direct appeal without any prior preparation. Yet this so called direct, unschooled reaction may well be just as misleading as are the responses of the novice to the gestures and ritual of the bull fight, i.e. its style.

36. Two Scores 16'57" 43

16'57"

"During the next lessons, you will learn enough about music to consider yourself, not an expert, but reasonably well informed about twentieth century music as well as other music. Of course, different people will bring varying sets of information and feelings about music which have been already learned. You won't all turn out like peas from the same pod.

17'0"

You will start to make value judgments . . . "this piece is better written or performed than that one . . . " In this respect your judgments will probably agree with those of your equally well and similarly informed friends. But you may not agree on such a statement as this, "I like this piece better." or "This piece makes me feel thus and so." Yet you may have a tendency to approach agreement even here. People who learn the same or similar sets of rules or style symbols are inclined to be in agreement at least about how well they are being followed or applied. It will be possible to reach an agreement on what a particular piece of music means, but often very difficult to put into words. (Music as we have defined it, is not a language comparable to French or English. Its meanings can be just as real but different from those imparted by words. Certain kinds of music may, of course, include the use of words, too.)

18'14"

You may even agree on such a statement as this: "This piece is prettier, or uglier, than the other one" although these terms often have little to do with twentieth century music, i.e. they are irrelevant.

26. Cons. and diss. chords Piano 18'26"

27. Man 18'44" hamering #6

18'50"

If you hold such opinions, they will almost certainly not be the same as those held by someone living a hundred years ago, or even quite possible, not the same as your parents' opinions. All meaning, all beauty, all humor, sadness, everything in music is created by the human participants. We are not born with musical opinions; we learn them. No music is meaningful, great, good, bad, ugly, beautiful, until it is thought and believed to be so.

20'9"

In this lesson we have asked almost as many questions as we have answered and in some respects this will continue to be so.

Although you will be learning about twentieth century music we cannot confine ourselves to studying just our own century; you can easily understand why by now.

The materials of sound and silence are used in all music and are the basic elements. We are about to examine them in a manner which will be applicable to all kinds of music...

28. Rock #1	21'6"	37. Rock Dance #1	44
29. Str. Qrt. tuning #2	21'18"	38. St. Art #2	45
30. Voladores #3	21'31"	39. Voladores #3	46
31. Applause #4	21'31"	40. Applause #4	47
32. Haydn Minuet		41. Str. Qrt. #2	48
Str. Qrt. #5	21'55"	42. Man	40
33. Hammering #6	22'05"	hammering #6	49
34. Gregorian		43. Illus. ms. #7	50
Chant #7	22'10"	44. Pianist #8	51
35. Piano			01
Composition #8	22'21"		

22'36" You have now heard recorded Lesson
One. In twenty seconds you will hear
a beep tone, your signal to turn your
lesson manual to page———.

Turn to page -----.

Visual Time Position Audio Effects Time Script This tape is now almost completed. When 22'56" Beep you hear the next and final beep tone, stop the machine by pushing buttonthe same one with which you started it. Look at page—— as soon as you have stopped the machine and follow the printed instructions. 23'14" Beep STOP THE MACHINE 24'0"

Students Manual

- 1. The questions on P........... of this manual are for your use in determining whether or not you have learned the essential material in recorded lesson one and are ready to proceed to recorded lesson two.
- 2. Questions 1 to 15 are factual questions which are to be answered true or false. They are, of course, based on the information in recorded lesson one. The correct answers appear on P............. of this manual. A short explanation for the correct answer appears with each answer.
- 3. Put your finger in the manual at page so that you can flip readily back and forth from page to page to
- 4. Check your answer directly after answering each question by reading the proper answer and explanation.
- 5. Note that if you make a wrong response (answer) you are directed to
- 6. Questions 16-20 are questions which are not answered in the manual and are designed to help you think through the content of recorded lesson one and discuss it in class.
 - 7. Now turn to question I, etc.

Student Manual For Recorded Lesson One

Introduction to Twentieth Century Music

Factual (true — false) questions numbers 1-15

- 1. Twentieth century music is totally unrelated to music of the nineteenth century.
- 2. Twentieth century music may include sounds other than those made by human voices or instruments of the band or orchestra.

- 3. In order to understand twentieth century music, it is necessary to have some comprehension of musical styles of other periods.
 - 4. Sounds and silence are both basic musical elements.
- 5. Twentieth century composers have eliminated dance, drama, or other visual effects as part of twentieth century music.
- 6. Music can be regarded as a human manner of behavior comparable to politics or baseball.
- 7. Music is best regarded as something so specialized and mysterious that only a few especially gifted people can enjoy and understand it.
- 8. There are rules regarding the composition, performance and the participation in music just as there are for a game such as chess.
- 9. The study of traditions reveals that human nature and human behavior are unchanging throughout the history of mankind.
- 10. According to the definition of music given in this lesson, a particular arrangement of sound and silence might be musical to one person but unmusical to another.
- 11. People are born with certain musical preferences that remain largely unchanged by their environments during their lifetime.
- 12. Lesson one makes the point that so-called primitive music is clearly inferior to modern European or American music.
- 13. The set of attitudes you now hold regarding music will in no way effect the attitudes you will have when you have completed this series of lessons.
- 14. "Good" music is "good" no matter when or where or by whom it might be heard.
- 15. According to the definition of music given in this lesson, one might logically assume that "music is a universal language".

Questions For Class Discussion

- 16. Which statement do you think is most nearly true?
 - a. This lesson is a reflection of the old saying "art for Art's sake"
 - b. Music is the servant of man
- 17. Do you think that the content of lesson one represents what might be called a
 - a. sociological approach to music and the arts, or
 - b. platonic approach to music and arts.
- 18. Discuss the following statement: "Beethoven's Fifth Symphony is a great work of art; it always will be no matter how nankind may regard it at any particular time."

- 19. Do you think that it demeans music to compare it to a base-ball game or a bull fight?
- 20. Schopenhauer, the great philosopher, once said "The composer reveals the inmose essence of the world . . . which relatively few people are capable of understanding." . . . "The less the composer is contaminated by the demands of his audience the more faithful he can be toward his mission." Do you think that quotation is a fair summary of the philosophy underlying the content of lesson one?

Answers to questions 1-15.

1. F	9. F
2. T	10. T
3. T	11. F
4. T	12. F
5. F	13. F
6. T	14. F
7. F	15. F
8. T	

Glossary of Terms Used in Recorded Lesson One (for class discussion)

Integral	Value Judgments
Style	Style Symbols
Science and Art	Irrelevant
Participate	Meaning
Analogy	Basic Elements
Inate	Aural
Ritual	

PILOT EXPERIMENTAL PROGRAMS FOR DEVELOPING HIGH SCHOOL ENSEMBLE MUSIC CLASSES (BAND, ORCHESTRA, CHORUS) INTO COURSES REPRESENTING AN ACADEMIC DISCIPLINE

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P. J. Newell, Jr., Assistant Commissioner,
Missouri State Department of Education

(The proposal by Mr. Bleckschmidt and Mr. Newell will be operational on an experimental basis in selected schools of Missouri starting with the fall semester, 1968). The Editor

The image of high school ensemble music classes (band, orchestra, and chorus) is presently one primarily related to public performance. The existing instructional approach is almost totally directed toward achieving technical proficiency. Because of this stress upon technical skill, the secondary music curriculum generally gives only limited consideration to the academic phase of music instruction.

It is proposed that high school music teachers give consideration to developing music courses in band, orchestra, and chorus consisting of an academic discipline, these courses to be developed on an experimental basis. Just how such experimental course would be developed will in some degree be left to local discretion. The primary objective will in all cases give preeminence to subject matter covered in the academic phase of music instruction as well as time allotment, to the extent the music classes would unquestionably be organized and presented as an academic discipline.

The instructional program for a high school class in band, orchestra, or chorus developed to be an academic discipline would consist of the following:

- I. A well-developed curriculum. The curriculum would consist of (1) Carefully selected music to be covered through ensemble study and performance, (2) Academic study related to the music being performed.
- II. An appropriate class schedule. There are numerous ways a course as an academic discipline could be organized and presented. A sample weekly schedule for implementing such a program may consist of the following pattern:
 - A. Monday. No instruments, no choral performance. The instructional program would consist of a study of the Structure of Music. This would include a study of music theory, music form, music analysis, and other interrelated areas. This instructional period would be related to the music literature found in the students band, orchestra, or choral folders.

- B. Tuesday. Regular band, orchestra, or choral classes meet. The primary objective would be the implementation of knowledge gained on Monday as related to the music in the students' folders which the students would be expected to play or sing.
- C. Wednesday. Groups would meet as academic classes. Instruments would remain at home. The Wednesday class session would consist of an instructional program of Music Appreciation. This could take many forms, but would primarily be organized to acquaint the students with many great works of the masters and especially works related to the music laterature found in the students' folders.
- D. Thursday. The groups would meet as conventional performing ensembles. The rehearsal period should always be related to the previous Monday and Wednesday sessions.
- E. Friday. Groups would meet as academic classes. The instructional program would be directed toward Music History. Again, the historical findings would be related to the music literature found in the students' folders.

Instead of being responsible only for the technical proficiency of performing a set of music in a folder, the student will have in addition, textbooks for instructional purposes and be subjected to a testing program covering several areas of music. The above pattern encompasses three academic areas and one in performance. This, of course, may vary in accordance with local planning. The students would be expected to spend at least one hour daily in study and preparation.

The title of the course may be "Band Fundamentals," "Choral Musicianship," or some similar title to distinguish it from the conventional band, orchestra, or choral classes.

Only those schools requesting the privilege of offering such a pilot course on an experimental basis will be considered. Presently only the larger AAA school systems maintaining superior programs of music supervision will be considered in this initial program of experimentation. Approvals will be on a one year basis subject to intensive review before approval is extended. Approvals will not be granted until the schools interested in developing such a pilot program do the following:

- I. Present a well-developed curriculum showing the interdisciplinary approach of music learning as an academic discipline related to music performance.
- II. Show evidence of planning to include sequential aspects to cover more than one year at least two years and possibly three. (Academic classes are expected to master a body of knowledge in one year and proceed to an advanced body of knowledge the following year. The same principle must be followed in planning music courses of this nature.

Approved music experimental courses clearly evident of being an academic discipline shall carry one unit of high school credit.

Note: The present policy concerning the number of credits in music courses a student may apply toward meeting high school graduation requirements shall remain in effect. No more than four of the total of seventeen units for graduation may be in music (no more than two in vocal nor two in instrumental). Students earning more than the seventeen units of credit for graduation may earn some or all of the additional units in music.

This interdisciplinary type of program will in no way affect schools desiring to maintain their traditional band, orchestra, and choral programs. The traditional programs will continue to allow one-half unit of credit for five class meetings per week and one-fourth unit of credit for three class meetings per week.

When the pilot programs have existed a sufficient length of time to establish definite objectives, have developed proven procedures and formulated acceptable evaluative criteria, the State Department of Education will assist in developing a state-wide curriculum guide related to music ensemble instruction as an academic discipline.

AN INTRODUCTION TO MUSIC LITERATURE

Ed.D. Dissertation. Washington University 1967 William Seymour, University of New Mexico

Reviewed by Jerry Galloway, Parkway Public Schools

An Introduction to Music Literature is a two volume work written to be used as a textbook in general music classes at the ninth grade level. Volume I is designated Student's Book and includes most of the material to be presented in the class. Volume II, the Teacher's Manual, contains suggestions for teaching the material found in the Student's Book and suggests related musical experiences in listening, singing, and creative activities.

It is refreshing to find a general music textbook which dares to deviate from the security of the usual chronological approach. It is also encouraging to note the absence of biographical trivia which so generously pads most general music texts. The author, through his approach, places major emphasis on the music itself rather than on the lives of composers. As a result, the activities for the students become more meaningful.

Music literature has been organized into six principal divisions. The divisions are entitled, "Art Music and the Art Song," "Solo Instrumental Music," "Sacred Vocal Ensemble Music," "Opera and Secular Vocal Ensemble Music," "Music for Large Instrumental Groups," and "Chamber Music." In addition, there is an introductory chapter on folk music and a concluding chapter dealing with the modern music which does not fall into the six major divisions.

Each chapter traces the literature in that division chronologically from the earliest significant examples through the major periods of music history including the twentieth century. Thus the origin and evolution of types of compositions, compositional techniques, style, and performance practices within a given performance medium become more readily apparent and their development is more easily followed.

The format is good. There are abundant musical examples and a most beneficial glossary of terms as well as informative appendices. A partial summary concludes each part of a chapter and a complete summary at the end of each chapter reviews the new material in that chapter and attempts to relate it to previous chapters. Although the summaries are beneficial, they are weakened by the introduction of new material. The Student's Book contains marginal entries for quick reference and as an aid to organizing the material. The author includes "aside" comments and suggestions to call special attention to certain points or to aid the student in recalling some facet of a previous discussion.

Included, also, are "Musicharts" which serve as visual aids for assisting the student in understanding the material he has read. The

charts are not totally effective, however, because the data is vague and items are often included which have no explanation in the text.

Assignments and theme topics are suggested. It appears that most of the assignments require rote memory of the material and allow little opportunity for inductive thinking or reasoning. They and the theme topics presume more musical knowledge than the ninth grade student will possess.

The vocabulary employed throughout is rather mature for a class of average ninth graders.

While the text is informative, it cannot be termed interesting reading for a general music class because in the final analysis, the author resorts to a large accumulation of facts and terms defined. It would require an intensly imaginative and exceptionally creative teacher to maintain the interest of the students using this text and to supplement it in such a way that it would create enthusiasm for music in the classroom. It would seem that the *Student's Book* might be used effectively as a teacher's reference manual.

It is, of course, impossible in a broad survey of this type to include even every major composer and his work and every facet of every performance medium. However, the following omissions are regrettable: the work of Richard Strauss and Faure from the chapter on "Art Music and the Art Song"; more detailed discussion of solo sonatas for instruments other than keyboard from the chapter on "Solo Instrumental Music"; the operas of Verdi from the chapter entitled "Opera and Secular Vocal Ensemble"; and the symphonies of Brahms and Mahler from the chapter on "Music for Large Instrumental Groups."

The suggested lists for listening would be more beneficial if expanded and if specific references were made to the movement or portion of the movement which illustrates the point the author is making.

A class taught using Mr. Seymour's plan could be an exciting one in the hands of an expert teacher. After all, the business of the general music class is not to teach history or to study the lives of great men. The purpose is to focus on the music. There is no doubt that the author has this purpose clearly in mind.

SCHOOL CHILDREN THROUGH THE PERCEPTION OF MUSICAL DIMENSIONS

Ed.D. Dissertation. Washington University 1967 Robert Neidlinger, St. Louis University

Reviewed by F. Bion McCurry, Southwest Missouri State College

Review

Dr. Neidlinger's study is based on his assumption that many present day music educators are teaching to their students musical concepts which are not universally applicable to the music, by setting norms for contemporary music with those as music was conceived during the years 1600 to 1900. Because of this, the researcher feels that a large repertoire of music of other places and other times, including our own contemporary music, is either ignored in the music curriculum or is treated superficially. He feels that undesirable results are obtained because music educators are conditioning their students to the musical styles of the common practice period to such an extent that they easily mistake those styles as the absolute norms against which all other music is to be judged. He further feels that when music educators confine student's musical cognition to one limited area of musical learning, they fail to provide them with fundamental concepts of musical materials upon which study of any or all manifestations of those materials may be based. Because of this, many music classes are producing listeners who are not capable of understanding music of their own contemporary culture.

It is obvious that the products of our schools, and specifically the products of our music classes are, for the most part, consumers of music. A large majority of elementary and secondary school students will not become composers or performers, but listeners. It is understandable that appreciation for any art form is greater when the listener or the viewer has, within his experience, information and knowledge concerning the relative values of the dimensions of the art form.

At what age should these experiences be made available to the student? Is there a magic age for the child to begin to learn about form in music, to learn about musical style, and to learn about concepts of musical dimensions and their relative values? Dr. Neidlinger's study postulates the following hypothesis:

"Children at the elementary level can learn concepts of the musical dimensions and their relative values, preparatory to subsequent study of musical style and form arising from those styles and forms, through a program of listening exercises which focuses attention upon the similarities and differences in the dimensions." The musical dimensions used by Dr. Neidlinger were time, pitch, loudness, timbre, and simultaneity. Examples of these dimensionwere tape-recorded first as a single dimension, then gradually as similated with the other dimensions. Each listening exercise included twenty-four examples. Each of the examples in every exercise was progressively more difficult.

An advance organizer was applied to the procedure in the study by asking the subjects to observe two concrete objects and to comment on the similarities and differences of those objects.

When the listening exercises were presented to the experimental group, each exercise was played three times to provide for the synthesis-analysis-synthesis sequence in learning. To determine the ability of the subject to differentiate and describe the various musical dimensions, different lengths and sizes of cylinders were placed on a peg-board by the subject to indicate the dimensions of time, pitch and loudness. Colored beads were used to represent timbre. The final arrangement of the cylinders and beads comprised a visual symbol of what the subject had perceived.

The control group was taught by the regular music teacher who used traditional procedures in presenting the listening lesson. The subjects ranged in age between seven and eleven years. A pretest and post-test technique was used as an evaluative measure to determine whether or not the subjects had been able to gain in their perceptable acquity.

Results

By applying statistical treatment to the pre-test and post-test scores of both the control and experimental groups, it was found that the T scores were quite small, indicating no significant difference between the mean scores of the pre-test and those of the post-test. Therefore, the postulated hypothesis was rejected.

Reflections

Dr. Neidlinger has done a thorough job of reviewing psychological theories of learning. This very large section of the study not only reviews these theories for the reader who has been able to study psychology extensively, but also presents a detailed explanation of these learning theories to the non-psychologist.

The study was limited due to the fact that a small number of subjects was used, and that laboratory conditions for the experiment were not available. The manipulation of the cylinders and beads by the subjects may have been a determining factor in the low T scores when statistical treatment was applied to the mean scores of the control and experimental groups. The reviewer feels that a weakness of this experiment lies in the method of response used by the researcher. Perhaps some other type of response which the

subjects were more accustomed to giving, such as an oral or written one, would have resulted in a different outcome of the experiment.

While the study is a limted one, it is of a kind which is needed. So-called listening or "appreciation" music lessons have too long been made with a haphazard presentation on the part of many teachers. It is too easy for the teacher to say to the class: "Today we will listen to this recording. I hope you will enjoy it." It is feasible to assume that children of any age will be more receptive and enjoy listening to music if they first have some insight into the make-up of the selections being heard. If they can learn to discriminate and to differentiate between the parts and dimensions of a musical selection, their knowledge and enjoyment of that selection as a whole should be greatly enhanced. The question still remains, however, as to when and how these dimensions are to be included in the music curriculum.

Although the original hypothesis of this experiment stands rejected, Dr. Neidlinger's contribution is no less important. A negative result of research is as important as a positive one. The result of one piece of research, either positive, or negative, is not necessarily final and decisive. Only after the research project has been repeated several times can a conclusive result be obtained. Dr. Neidlinger has made a definite contribution to the field of music education. It is hoped that since his interest lies in this area, he will continue further research.

THE HISTORY OF MUSIC IN KANSAS CITY: 1900-1965

D.M.A. Dissertation. University of Missouri in Kansas City, 1967.

James Milford Crabb, Kansas City, Kansas Public Schools.

Reviewed by M. O. Johnson, Independence, Mo. Public Schools.

This review of music history from 1900 to 1965, is a prodigious work concerning the musical activities and their development in the metropolitan area. Because all of the information does not pertain to the history of public school music, and because the dissertation proved to be such interesting reading, the reviewer has quoted several sections of the writing verbatum. Also, because the history of the public school music program is inter-woven within the total story, we have the permission of the author to reprint that information about the music in the public schools.

. . . The public schools began to function in 1867 when the Kansas City School District was organized. Central High School was opened that year. The public library was opened in 1874.

In 1874, there were 4,163 pupils in a town of 32,260. Manual High School was opened in 1897. Kindergartens were started in 1893. Lincoln High School was opened in 1906 and Westport High School in 1908. 56

- Mr. E. C. White was employed at an additional salary of \$25 a month to teach music to the teachers of schools, and to give such aid as they require in their classes, to enable them to teach elementary principles of music successfully in their schools.⁵⁷
- S. G. Bennett was the first Supervisor of Music for the Kansas City, Missouri Public Schools, serving from 1890 to 1894.⁵⁸
- S. G. Bennett was engaged by the Board of Education to teach vocal music at the high school in 1895. The board adopted the Normal Music Course to replace the National Music Course. He required the pupils to memorize the following statement: "Loud singing in a schoolroom is disorder." 50

Professor Carl Betz was Supervisor of Music and Calisthenics from 1896 to 1898.

By 1900, the oldest district school system had largely disappeared. A school or group of schools was supervised by a superintendent, principal, and special supervisors. The grade teacher taught each of the subjects offered, including music.

Bessie M. Whitely was supervisor of music for the Kansas City, Missouri Public Schools. Carrie Farwell Vorhees was the music

teacher at Central High School; Maybelle Lucas was the vocal music teacher at Lincoln High School; Mrs. Jennie Schultz was the music teacher at Manual Training High School; and Jennie Rose was the vocal music teacher at Westport High School. The elementary teachers taught their music in their classrooms. Weekly music meetings were held at the Library Building by the supervisor of music to assist teachers who needed help.⁶⁰

Rote singing was replaced by music reading and consideration of the indvidual child with his unique vocal possibilities. The fact that the child could learn to read music gave music a more secure position in the curriculum.

The teaching of music was very satisfactory in those schools where the teacher especially qualified was intrusted with the instruction of several classes, as was the case in the Lowell, Jefferson, Longfellow, and Yeager Schools.⁶¹

The responsibilities of the schools are carried out through the local school boards and by the cooperation of the school personnel. The school's purpose is to develop good citizens — morally, socially, economically, politically — by giving each child the opportunity to satisfy his needs, interests, and abilities.

... Many of the European musicians who came to Kansas City brought skills handed down as a sacred trust. These persons have been honor bound since the Middle Ages to maintain high standards as performers and as instrument makers or repairmen.

Most Americans are children of immigrants, many of whom came seeking refuge on the frontier. "Kansas City was, for many years, the narrow part of an hourglass bringing the pioneers to its portals and spreading them westward by way of the Santa Fe and Oregon Trails, the ralroads, and finally the airplane." 88

The European immigrants and emigrants from the Eastern United States brought a culture which they imposed on Kansas City. As the city matured into a great financial and industrial center, the layer of culture made it a musical center as well.

Carl Busch and Contemporaries

The "Father of Kansas City Music," as Carl Busch was later called, came to Kansas City (128,000 population) in 1887 at the age of twenty-five and, for more than fifty years, took an active part in the music of the community. He found people interested in music, seeking expression in singing societies and other musical groups. There was widespread ambition to attain amateur skill with some instrument. The city was enthusiastic about good opera but had only vague ideas about chamber and symphonic literature.

Busch left no fortune but helped give the city a national reputation as a cultural and civic center. He was born in Bjerro, Denmark on March 29, 1862, the youngest of five children. 60 The boys were tutored at home by a governess, trained in music as well as academic subjects, during their early years. Carl practiced on the flute. cello, and violin but did not study music seriously until he was nineteen. His father enrolled him in law school at Copenhagen but Carl, against his father's wishes, turned to music. He enrolled in the Copenhagen Conservatory of Music to study piano with Bondesen, theory with Niels Vilhelm Gade (1817-1890) and Emil Harmann (1836-1898), and violin with Lars Tofte (1832-1907). He worked so diligently that within three years he was able to secure engagements with the Copenhagen Symphony Orchestra and the Royal Opera House Orchestra. Busch won a scholarship to the Brussels Conservatory but it was revoked because he worked on composition instead of attending orchestra rehearsals.

Busch went to Paris and found a position with Benjamin Godard's orchestra where he was assigned as a violist in a viola section of twenty players. He studied wth Godard in 1886 and was able to secure, through Godard (1849-1895), playing engagements with Anton Rubinstein (1829-1894) and Camille Saint-Saens (1835-1921), who were in Paris at that time. He also became acquainted with Charles Gounod (1818-1893) and his works. He accepted an engagement to play in a resort hotel in Southern France but the hotel burned, leaving him without a position. He had heard, through a violinist friend, that there were oppirtunities for musicians in Kansas City. He found three other musicians, former fellow members of the Royal Opera House Orchestra of Copenhagen, who were interested in going to the New World and organized the Gade String Quartet (Busch's hero was Niels Vilhelm Gade, his violin teacher and a composer). The members of the quartet were: Daniel Hanneman, first violin; Valdemar Pappenbrock, second violin; Henri Matthiassen, cello; and Carl Busch, viola. Their contact in Kansas City was Thyge Sogard, Danish Consul, who was former music publisher. Sogard was interested in having string quartet concerts presented in Kansas City. The members of the quartet were interested in finding fame and fortune in the New World of America.

In 1887, the Gade String Quartet played several concerts in Sweden and then came to the United States and Kansas City to make fortunes and reputations.

The quartet arrived in Kansas City after an ocean trip and a rail trip via Canada. They had few clothes but carried a collection of Beethoven, Mozart, Haydn, and Boccherini string quartet scores. The long trip and the first Kansas City concert for a small audience, on an afternoon in a gloomy hall on the second floor at 916 Main Street, made the men feel discouraged. Carl Busch played a viola solo, "Legende" by Wieniawski (1835-1880), on this concert with Mary O'Doherty (Mrs. Lee Riley) at the piano. This concert was sponsored by the Lorelei Society and Mr. W. H. Lieb.

KANSAS CITY SYMPHONY ORCHESTRA

CARL BUSCH, Conductor

Soloist, Miss ELIZABETH PARKINA, Soprano NOVEMBER 4th, 1912

PROGRAM

Symphony No. 3, in A Minor (Scotch) - F. Mendelssohn

Introduction-Allegro	agitato			
Scherzo-Assai viv	ace			
Adagio cantal	bile			
Allegro (Guerriero-Fi	nale Mae	stoso	
Scene and Aria from "Lu	ıcia" -	-	-	G. Donizetti
MISS	ELIZABETH	PARKIN.	A	
(Flute o	obligato Mr.	J. Rendin	a)	
	Intermissi	on		
Overture to "Rienzi"	-	-	-	R. Wagner
Aria, Depuis le jour from MISS 1	"Louise" ELIZABETH	- PARKIN		Charpentier
Scene and Valse from Ba	llet "Gretna	Green"		E. Guiraud
Prelude to the 4th scene	of "La Vier	ge" -		J. Massenet
"Carnival in Paris" -			-	J. Svendsen

Theatre.

Fig. 6.—Kansas City Symphony Orchestra Program, Second Season, 1912-13, Monday Afternoon, November 4, 1912, Shubert

Steinway Grand Piano from J. W. Jenkins' Sons Music Co.

The Kansas City, Missouri Public Schools were making progress in music under the direction of Mrs. Bessie M. Whitely.

It was Mrs. Bessie M. Whitely (Supervisor of Music from 1900-1921) who first sought to place music on an equal basis with other subjects in the curriculum. Interclass contests were organized, school concerts were given and school orchestras were formed. By 1911 some schools started their own music libraries. Instrumental music classes for beginning band and orchestral instruments were authorized by the Board of Education in November, 1916. Her course of study stressed a uniform method of teaching, books for indigent children, sight-reading, and development of a sense of rhythm.¹⁰⁶

Great strides were made in music. Progress was indicated by the desire for higher standards of excellence in rendition of school songs, establishment of school concerts, installation of musical libraries, interclass musical contests, school orchestras, purchase by schools of pianos and player pianos for the use of the pupils, patronizing of high-class musical entertainments — assistance rendered by the school children.¹⁰⁷

The establishment of daily drill in school music and methods in the Normal Department was a most progressive measure. Music festivals were held and school orchestras organized. Thirty-three school orchestras were organized with a total of more than 300 students. In 1913-1914, two events of great educational value occurred, — a concert between the choral organizations of the high schools and a concert by the Kansas City Symphony Orchestra for children of the elementary grades. 108

Music appreciation lessons were given in many schools during the "Children's Hour." In the fall of 1915, elementary and high schools combined in a choral and orchestral ensemble in the preparation and performance of music for the entertainment of the State Teachers' Association. 100

On April 9-10, a performance was given at Convention Hall. 150 pupils of the elementary schools furnished the orchestra music; fifty-six schools and 3,000 pupils were represented. The next year a community orchestra was formed with the Jefferson School as the center. It was composed of members of the high school and grade school orchestras, and adults of the community; thirteen schools were represented.¹¹⁰

Orchestral instrument classes, — violin and other instruments, — were held after four p.m., not more than twenty cents a lesson from each pupil in classes from five to ten. Such classes were held in thirty-one schools. 111

. . . "In 1916, the teaching of band and orchestra instruments was authorized by the Kansas City, Missouri Board of Education." ¹³⁴

The music system in the Kansas City, Missouri Public Schools before 1921 had consisted of a supervisor of music and an assistant, with a music teacher in each high school. The teachers in the elementary schools taught music to the pupils in their classrooms with the aid of the music supervisors.

Prior to 1921, the Kansas City, Missouri schools had lagged in the development of the music program. Only about ten per cent of the high school students came into contact with music. Los Angeles High School in California, as a comparison, had sixty per cent of its students elect music as a subject toward graduation.

The Kansas City, Missouri Public School Board engaged Mabelle Glenn as supervisor of music in 1921. She had the responsibility, with three assistants, R. H. Brown, Mrs. Esther Darnell, and Miss Sarah Clifford, of directing the music program for a junior college (music classes and a teacher's college), four senior high schools, six junior high schools, and eighty-eight elementary schools.

The progress made in the Kansas City, Missouri Public Schools in 1924 is indicated in the Annual Report to the Board of Education by the Superintendent of Schools.

Much is being done in music through the formation of more orchestras, classes in the appreciation of music and teaching of piano. It is most interesting and enjoyable to see and hear the kindergarten and primary orchestras, formed to develop rhythm.

The little folks are taught to listen to the music, often played on the victrola, and determine which instruments should be played at different stages of the piece. The instruments used are bells, drums, toy instruments, small cymbals, and tambourines, often made by sewing tiny bells to the edge of a paper plate.

The School Board co-operates with the Kansas City Symphony Association in bringing concerts to the school children. Miss Margaret Lowry, who replaced Miss Edith Rhetts, who was engaged by the Detroit Symphony, as music appreciation director, spends most of her time in work with the school children under the auspices of the Kansas City Symphony Association. Music contests upon which the boys and girls prepare are held each spring. Concerts are held during the fall and winter. Pupils are prepared through the use of phonograph records, received in the office of the superintendent, and by music appreciation notes for children's symphony concerts.

In 1924, the teaching of piano in classes was begun under the supervision of Miss Helen Curtis and Miss Mabelle Glenn. Each child pays ten cents for a lesson. Both elementary and high schools give credit for outside music. 135 By 1925, the music staff in the Kansas City, Missouri Public Schools had been increased.

By 1925, Mabelle Glenn had ten music teachers in the four high schools, four elementary school supervisors, one piano supervisor, fourteen piano teachers, one violin supervisor, seven violin teachers, one part-time teacher for each orchestral instrument, two music appreciation teachers, and one special music teacher for each platoon or departmental school. 136

Each of the 45,000 children in the elementary schools in the Kansas City, Missouri Public Schools received daily instruction in music from the classroom teacher. Enrollments in the high school music classes increased. There were bands, orchestras, glee clubs, classes in general music, appreciation of music, instruments of the band and orchestra, and piano. Mabelle Glenn started free instrumental music classes with instruments loaned to the students without charge. Piano classes were started in the elementary schools. Credit was given for private lessons taken outside of school from private teachers. Students could earn up to six credits toward graduation from high school on a basis of one credit per semester per instrument. Credit could be earned on all symphony orchestra instruments as well as in piano and voice. Monthly reports were required on the pupil's work. Examinations were given at the end of each semester by a selected committee.

Young Peoples Concerts were again scheduled. Carl Busch had given symphony orchestra concerts for school children as early as 1911. Children were prepared for concerts by lessons in appreciation which included the use of special music notes and recordings when available.

Music Memory Contests were scheduled and a teacher's chorus was organized. City Festivals were organized and Christmas Sings were held at the Union Station.

Mabelle Glenn was secretary of the National Music Supervisors Conference in 1918 and from 1920 to 1925 served as a member of the organization's National Board of Control. When the Music Supervisors National Conference was held in Kansas City in 1925, the full forces of the Kansas City Schools and the community rallied to provide a memorable program for all who attended.

Mabelle Glenn was elected as the first president of the South-western Music Supervisors Conference in 1926 when the National Conference went on the biennial plan. In 1928, Miss Glenn was elected president of the Music Supervisors National Conference. She was instrumental, as president, in the establishment of the national office in Chicago with an executive secretary. This office is now located in the National Education Association building in Washington, D.C.

Miss Glenn was elected co-president of the Anglo-American Music Conference in Lausanne, Switzerland in 1929.

Mabelle Glenn was a successful educator, a competent musician, and particularly resourceful in the area of methodology in

music and music materials for young people. She believed in the use of live music because she felt that the real love of music was best developed at the concerts. She became well-known as a community worker as director of the boys' choir at Grace and Holy Trinity Church and through her work with the Kansas City Philharmonic Orchestra. The Philharmonic children's concerts, the 7,000-8,000 pupil choruses in the Arena, and the Grace and Holy Trinity boys' choir set high standards of excellence. When not involved in the direction of the large events or the desk responsibilities of her position, Miss Glenn made frequent visits to the classroom.

"Music for every child" was her objective. She believed that America was restless because many young people lacked an emotional outlet. She wanted to stimulate self-activity through music in the schools, the kinds of activity that bring their rewards in satisfaction. She believed that instilling the love of music in children was the principal task of each music teacher.

Miss Glenn served as a lecturer for colleges and universities, including Northwestern University, San Jose State Teachers' College, University of Southern California, Columbia University, University of Idaho, Washington State College (Pullman), Julliard School of Music, University of Cincinnati, University of Michigan, University of Minnesota, University of Montana, University of Utah, University of Arizona, University of Texas, and Drake University.

Miss Glenn received the honorary Doctor of Music degree from the Chicago Musical College in 1930 with Percy Granger. Rudolf Ganz was the director.

In 1943, she received another honorary Doctor of Music degree from Monmouth College, her old alma mater. 137

In 1933, she received the honorary Doctor of Music degree from the Kansas City-Horner Conservatory of Music.

Mabelle Glenn was helpful in promoting the circulation of thousands of musical scores and recordings through the assistance of the Kansas City, Missouri Public Library. A pamphlet (1939) was published by the library which contained lists of miniature orchestral scores, operas, cantatas, operettas, choral music, anthems and sacred cantatas, masses, and oratorios with available recordings.

Miss Glenn had added eight instrumental music teachers in the elementary schools by 1950.

Mabelle Glenn created a music education program in the Kansas City, Missouri Public Schools and a community relations program in the city that caught and has held national attention to the present time. She had a unique ability to secure help when she needed it. Her brilliant and joyful personality, her knowledge and her power to inspire others, gave her an important place among the great figures of music education.

The Kansas City, Missouri Public Schools had an extensive radio broadcasting program in elementary music from 1946 to 1952.

The program was directed by Mabelle Glenn and Alice Gallup and broadcast by Station KMBC . . .

by Robert Milton, vocal music instructor at Southwest High School (1937-1950). There were five vocal music supervisors and eight elementary music teachers. Milton increased the music budget to provide for added services. Roy Tharp was appointed elementary instrumental music supervisor in 1951. The staff of eight elementary instrumental music teachers was increased to eighteen in 1951 and all were given contracts.

Robert Milton died in 1961 and was succeeded by Richard C. Berg, a well-known writer, lecturer, and authority on audio-visual aids with special interest in educational television. He came from Yonkers, New York, where he had been director of music and a consultant for the New York State Department of Education. "In 1962 there were 10 vocal music assistants and 18 instrumental music teachers under contract."141 Tharp was appointed assistant director of music in 1964, with special responsibility for elementary and high school instrumental music. Under Richard Berg's guidance, the music budget for equipment and materials was greatly improved. The Music Educators National Conference convened in Kansas City. Missouri in March of 1966 with Richard Berg in the capacity of the host music director. A Kansas City Night was presented the evening of March 21, 1966 to a capacity audience of M.E.N.C. members and Kansas Citians. Several thousand pupils from the Kansas City, Missouri schools were featured on the program . . .

. . . The Kansas City Conservatory of Music is about to take advantage of the authority granted them in its charter by the state of Missouri, and establish advanced courses of musical studies in all branches, upon the completion of which will be granted in their order the degrees of bachelor of music, master of music, and doctor of music. In arranging these courses, Dr. Hans Gartlan, who for many years was director of the Royal Conservatory of Odessa, Russia, will follow the standards established by the greatest musical institution in the Old World.¹⁴⁵

On September 1, 1914, Charles F. Horner, an enterprising young teacher from Menomonie, Wisconsin, established the Horner Institute of Fine Arts at Linwood and Holmes. He had attended the University of Nebraska Law School and had been a principal of the Eddyville, Nebraska school prior to coming to Kansas City. His establishment of the Institute was coincident with the move of the Conservatory to 1515 Linwood. The curriculum of the Horner Institute of Fine Arts was organized by Earl Rosenberg to give a thorough course of study in the areas of music, dramatic art, and painting. The first year enrollment included 200 students, 134 of whom were professional musicians attracted to the school by the quality and reputation of the faculty members.

The faculty aimed to give the highest artistic instruction and education to young men and women and to urge the ideals of service to their fellow men. The school was dedicated to the serious study of the fine arts. Each teacher was chosen on the basis of artistic excellence, ability to impart his ideas to others, and high moral qualities. The program was aimed as serving two types of students — those who had a professional purpose and those who wished to attain more knowledge and proficiency in their area of culture.

On September 6, 1926, the amalgamated schools, the Horner Institute and the Kansas City Conservatory opened for the 1926-1927 term. The main offices were at 3000 Troost and the facilities at 1515 Linwood remained in use. Branch studies were continued at the Country Club location, 63rd and Brookside; Rockhill, 4016 Walnut; Northeast, 140 South Chelsea Street; Pembroke, at 75th and State Line; and in Kansas City, Kansas at 40 South 18th, the Argentine District, and the Quindaro District. The school operated under a charter from the state of Missouri as a public institution, not operated for profit and non-sectarian. Charles F. Horner was president, and L. L. Marcell was chairman of the Board of Trustees. There was a thirty-three member Board of Trustees with an Administrative Board. or Executive Committee, of five, headed by Earl Rosenberg and including Henry Gorrell, Albert H. Johnstone, Forrest Schulz, and John Thompson. Horner served without salary and Miss Grace Kaufman continued as registrar. There were three classes of trustees - honorary, advisory, and active. There was a combined faculty of 80 teachers and a student enrollment of nearly 5,000 students. The faculty included graduates in many areas of music and veterans of the concert field.

The Horner Junior College was established in 1932 to provide a regular college course in academic subjects. Sixty semester hours of academic subjects leading to the degrees of Associate in Arts and Associate in Education were offered (see Figure 14). The Board of Trustees, composed of nearly one hundred leading citizens of Kansas City; named Charles F. Horner as president and Clyde E. Evans as dean. The Advisory Committee included: O. C. Sanford, Assistant Superintendent of Instruction, State of Missouri; George Melcher, Superintendent of Public Instruction, Kansas City, Missouri; and A. Ross Hill, former President, University of Missouri.

Courses Leading to Degrees in

Music Theatre Arts Dancing Expression
Kansas City — Horner Conservatory

Freshman-Sophomore Classes, College of Liberal Arts

Horner Junior College

Va. 6544 Lo. 3737 Dr. 0345 Ind. 829

Fig. 14 — Advertisement from the Kansas City Journal-Post, February 12, 1933.

In 1934, the Kansas City-Horner Conservatory of Music was renamed the Conservatory of Music of Kansas City. Earl Rosenberg remained as manager for several years until he resigned to enter personnel work with Lockheed Aircraft in California.

In 1936, the school was moved to the Armour Mansion, former home of Mrs. A. W. Armour, at 3500 Walnut Street, with each faculty member acting as an administrator. The Trustees supported the faculty during this period with John Thompson, eminent pianist, serving as director for both the college and the preparatory school. From 1936 to 1955, the Conservatory used the auditorium of the Unitarian Church at Thirty-fourth and Baltimore for assemblies and summer workshops.

The Conservatory of Music presented a concert of original compositions by the students from the studio of Francis Buebendorf on the evening of May 9, 1950 in the Unitarian Church, 3425 Baltimore Avenue, Kansas City, Missouri. Soloists included Robert Downs, baritone; Virginia French, piano; Judith Hulse, piano; Gordon May, flute; John Raimo, piano; Marilyn Sailor, piano; La Vergne Gresich, piano accompaniment. The Conservatory String Quartet was featured. Compositions included sonatas for piano by Ben Olsen and John Elliot, a suite for string quartet by Don Duncan, and a song "Lullabye" by Jack Ralston.

In 1951, the Conservatory was moved to 4420 Warwick Boulevard, the former Mrs. Simeon B. Armour home and carriage house. This facility offered an opportunity for an expanded program, with twenty-two studios, nine practice rooms, and a classroom. The carriage house (or Annex) now has eight studios and a classroom on the second floor. The first floor is used for classes in ballet.

In 1954, ground was broken for Grant Hall. Mr. Grant was surprised at the ceremony to find that the building was to bear his name. Mr. and Mrs. Grant had contributed \$100,000.00 for its construction. Later donations from Mrs. Grant totaled \$40,000.00, which helped liquidate the building debt on Grant Hall.

In 1955, the new \$250,000.00 Grant Hall and Stover Auditorium was opened for use. This new and additional facility had 16 studios, a 250-seat recital hall, library, 4 classrooms, 6 practice rooms, a kitchen, dining hall, and administrative offices.

The honorary Doctor of Music degree has been conferred by the Conservatory of Music on Carl Busch, Madame Ernestine Schumann-Heink, Howard Hanson, Hans Schwieger, Forrest Schulz, Harvey Ringel, Regina Guilmette Hall, Richard De Young, Donald Swarthout, and Mabelle Glenn.

The year 1956 was the Golden Anniversary for the Conservatory of Music. The school, started by John A. Cowan on a modest scale, had succeeded with high standards. A large group of influential Kansas City citizens had placed the school on a permanent civic basis as a non-profit institution. This list of sponsors has included such persons as W. T. Kemper, Irvin Kirkland, R. A. Long,

J. W. Jenkins, John F. Downing, Herbert F. Hall, J. C. Nichols, J. L. Love, D. J. Huff, Mr. and Mrs. W. T. Grant, W. D. Grant, Henry D. Ashley, John Henry Smith, Phil R. Toll, Sigmund Harzfeld, Mrs. Russell Stover, Powell Groner, Cliff C. Jones, Sr., Cliff C. Jones, Jr., Mrs. Walter Jaccard, Charles F. Horner, William Huttig, L. P. Rothschild, Dr. James DeRenna, Lester Milgram, and Henry C. Haskell. Most of the prominent Kansas Citans of the era and leading musicians in the city were associated with the Conservatory at various times.

The directors for the Conservatory of Music have been Arnold Volpe (1922-1926), Dr. Earl Rosenberg (1926-1928; 1929-1930), Albert H. Johnstone (1928-1929), Dr. John Thompson (1931-1938), Harold Van Duzce (1939-1940), Dr. Wiktor Labunski (1941-1958), and Dr. Archie N. Jones (1959). The directors have maintained the high standards inherited from John A. Cowan and Charles F. Horner.

. . . The major problem in the consummation of this work is the selection and not the collection of data. To be the author of a careful scrutiny of the Kansas City musical scene is a tremendous and on-going responsibility. It is hoped that as additional studies are made that more sources will be located and made available for study. The search for pertinent information has been difficult, frustrating, and exciting! Stern consideration of space and time have limited the study to representative persons and events from each period . . .

The review of this dissertation has been handled a little differently than the usual review. In addition to the information about the music in the public schools of Kansas City, Missouri, the History of the whole metropolitan area is included. It will prove interesting reading to more than the local residents. The early history abounds with interesting incidents of musical programs, the problems of staging these events, raising money, and obtaining the backing of the financial barons of the day. A most interesting aspect of the writings includes the programs of the individuals, groups, and companies of traveling organizations. The reprinting of these programs gives us insight into the musical fare of the early settler and kinds of musical entertainment that seemed most readily accepted. Of no small importance is the fact that entertainers performed in auditorium that were large enough to seat more than a thousand people.

It is a known fact that this History is the first of its kind in the Kansas City area. It will serve no small purpose to those in future years who will continue to write about the daily happenings in the musical world of the Kansas Cities. It can only be hoped that a continuum will be kept of the important happenings.

In addition to the historical information set forth in this dissertation, about one hundred sixty pages are devoted to reprints of programs, critiques of these events, names of music critics, performers, personnel of many of the performing groups, directors of musical and theater activity, and historical accounts of the men and women engrossed in the daily problems connected with the arts.

FOOTNOTES

(These footnotes will refer only to the written material being quoted from the original dissertation. The footnote numbering was not revised nor altered for this particular publication.)

⁵⁶Kansas City Journal-Post, September 6, 1925.

⁵⁷Secretary's Minutes, Article 3535, Kansas City, Missouri Board of Education (October 2, 1878), 266.

⁵⁸The Baton, II (October, 1895), 5.

⁵⁹Kansas City and Its Schools (1867-1917) Washington, D.C.: National Education Association, 1917), 4.

60"Excerpts from Manual and Directory of the Public Schools of Kansas City, Missouri," compiled by W. E. Benson, Secretary (November 20, 1900), 3-6.

61 Annual Report, Kansas City, Missouri Public Schools, 1902-03, 183.

⁴⁸Robert S. Townsend, *Proud Heritage* (Kansas City, Mo.: Kansas City Life Insurance Co., 1957), 2.

⁶⁹Mildred Howard Barney, Sir Carl Busch (Kansas City, Mo.: The University of Kansas City Press, 1942), 9.

⁷⁰Barney, 12.

¹⁰⁶Bryce Turville, "Elementary Music in the Public Schools of Kansas City, Missouri" (unpublished Master's thesis, Dept. of Mus. Ed., University of Kansas City, Mo. 1962), 117.

¹⁰⁷Annual Report, Kansas City, Missouri Board of Education, 1910-1911, 58.

¹⁰⁸Annual Report, Kansas City, Missouri Board of Education, 1913-1914, 71-72.

¹⁰⁹Annual Report, Kansas City, Missouri Board of Education, 1915-1916, 95.

110Ibid.

¹¹¹Annual Report, Kansas City, Missouri Board of Education, 1916-1917, 718.

¹³³William Theophilus Eicher, "The Use of Professional Symphony Musicians as Instructors of Instrumental Music in the Public Schols" (unpublished Ed.D. project, Columbia University, 1958), 160.

¹³⁴Kansas City Star, October 16, 1966.

¹⁸⁵Ella Wiberg, "The History of the Development of Public Education in Kansas City, Missouri" (unpublished Master's Thesis, University of Wisconsin, 1925), 59.

¹³⁶George Holgate, The Life of Mabelle Glenn, Music Educator, (West Yarmouth, Mass.: Rainbow Press, 1965), 22.

¹³⁷*Ibid.*, 136.

¹⁴¹Interview with Roy Tharp, July 29, 1966.

¹⁴⁵Kansas City Journal, November 11, 1917.