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1. Contributions to this journal should be sent to the editor. (See above for the address.)
2. The editors welcome contributions of a philosophical, historical or scientific nature which report the results of research pertinent to instruction in music in the educational institutions of Missouri.
3. Articles should be typewritten with double spacing throughout including footnotes, long quotations and itemized lists.
4. Footnotes should be placed consecutively at the end of the article beginning on a new page using double spacing between notes. Authors reporting quantitative studies may substitute a list of references for footnotes in accordance with practice followed in many scientific journals.
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A CURRICULUM FOR TEACHING MUSICIANSHIP TO SECONDARY SCHOOL STUDENTS: COMPOSING, LISTENING, ANALYZING AND PERFORMING

Lewis B. Hilton
Washington University, St. Louis, Missouri
U.S.A.

This paper was presented at the International Society for Music Education in London, Ontario, August 1978

For the past 26 years I have supervised and taught a class in musicianship to students ranging in age from 10 years to 18 or 19 on Saturday mornings from 10-12 a.m. at Washington University, St. Louis, Missouri. No tuition is charged but the students must pay for their own materials. They are recruited each fall by the simple expedient of sending a letter of explanation (see attached) with enrollment forms (see attached) to secondary school music teachers in the St. Louis Metropolitan Area. We average around 100 students each year. I have four assistants (graduate students in music education). We break the class into four or five sections on the basis of a very simple pretest on the traditional rudiments of music. After the first session or two we generally regroup for one reason or another. Our test is far from perfect nor do we need it to be, because of the nature of our curriculum. It is almost impossible to predict motivation,

---

Dr. Lewis B. Hilton founded the Missouri Journal of Research in Music Education in 1961 and was its editor for fifteen years. He will be on terminal leave for 1979-1980 after which time he will be retiring from his position as Chairman of Music Education at Washington University, St. Louis. Dr. Hilton has served his university and the state of Missouri since 1951. He has contributed greatly to the stature of music education in our state and in our nation.
--editor JRS

---

creativity, work habits, attributes which are actually more significant than, say, a knowledge of major and minor key signatures. I have taught the methodology of this class in workshops at several universities and to orientation workshops in public schools as well as building it into curricula of some school systems where I have served as curriculum consultant, and of course, my own university students are exposed to it. So while I do not make any claim for having measured statistically or have used any truly experimental method for testing its efficacy, I do have a great deal of experiential evidence of its success. But I should not try to generalize to any population whatever success I believe my students and I have had in employing this curriculum.

I am going to present a few sample projects in very simple language. Note that several more are listed in the addenda but not discussed here. It will be perfectly evident that while unique in some respects, it is highly eclectic in others (see Bibliography).

I. Aims and goals (highly abbreviated)

A. Open the students' ears to all kinds of music (e.g., see Schafer's Ear Cleaning in the bibliography).

B. Encourage lasting musical behavioral changes, i.e., make some kind of music a central and active part of the students' lives.

C. Encourage creativity.

D. Develop cognitive, affective and motor skills.

E. Develop ability to make value judgments and discuss them in musical terms N.B. these value judgements are not imposed on the students (or at least we try to avoid this).

II. Materials and equipment needed (minimum for all projects)

A. Four or five rooms, one of which should be large enough to accommodate the entire class.

B. At least one tape recorder and record player in each of these rooms. One or two should be portable.

C. Splicing equipment if possible.

D. Three to four additional smaller rooms for small group and individual improvisation, rehearsal and discussion.

E. Recordings, blank tape.

F. Any number of noise makers such as rulers.

G. Blackboard.

H. Whatever instruments the students may play (they furnish their own).

I. Staff paper and pencils.

J. Workbooks or textbooks. We presently use Clough and Murphy / Melcher for helping to teach rudiments and traditional analysis (see Bibliography).

K. Grand pianos in each of the main classrooms if possible. The amount of physical space needed and the quantity of such devices as tape recorders obviously are adaptable to each particular situation.

III. Procedures for all projects: (This is by no means a step by step account, but a selected sampling from the easiest to a rather advanced project. Some of the material may be omitted entirely or reviewed briefly depending on the sophistication of any of the several groups of students. A teacher may often adapt the procedures to suit his own preferences or what he perceives to be motivating factors or the lack thereof on the part of his class.)

N.B. I am presenting the first class meeting in some detail. The other projects have been selected as samples from the simplest to the more complex. Some may require two or three class sessions.

PROJECT I. Orientation

Equipment needed: Tape recorder, a prepared tape, selected recordings, paper and pencil.

Procedure:

A. Meet together as a group. Administer a brief pretest (15 minutes--key signatures, rhythmic and melodic dictation including 3 clefs, listening to brief excerpts of recordings or tapes, ranging from bluegrass, rock and jazz to perhaps Brahms, Stravinsky and Stockhausen. Ask the students to indicate their own preferences of music performed and to write a very brief synopsis of their musical backgrounds, although we already know some of this from their entrance forms. (See a sample of entrance form on page 24.)

B. I preside over this session explaining what we want to accomplish; the emphasis will be on creativity (it does not matter whether they even know the names of the notes); we will all soon be composing and learning at each one's level; we do not care what music they like now but we will be listening to and writing a great variety of musics and, for those who need it, learning rudiments of notation and other fundamentals.

1. We will now listen to an excerpt of a tape, in this case Polarities, published by Roger Dean Co. and composed by me. A class discussion follows concerning the music they heard.

2. Introduce the dimensions of music upon which all aspects of this class will be based (see Addenda).

Sound - Silence

Pitch Loudness Timbre Duration

Simultaneity Texture Form

Style

3. Play the same tape again. Then discuss it in terms of the dimensions of music.

C. This procedure will have taken about one hour. By this time my assistants will have quickly examined the pretest papers and made temporary section assignments. These assignments are announced making it clear that they are temporary and can be changed by student-teacher agreement within the next few weeks. Students are given their room and teacher assignments and asked to bring their instruments (if they play any) to all subsequent class meetings.

D. The concert. The last 20 minutes or so of this class, as with other classes every two or three weeks, are devoted to a live concert provided, in my case, by one of my own faculty members, some other faculty member from the University, or graduate students. Our first concert is usually a jazz concert (perhaps just piano and bass). The students are asked to listen to it employing the dimensions of music in interpreting for themselves the manipulation of these dimensions employed by the composers represented (as will be the case in all other concerts).

N.B. If the live concerts are not always practical, tapes or recordings can be substituted, although they are not as satisfactory.

From now on, I will not be nearly so precise in my instructions, since space does not permit it and it is probably best for you to adapt the materials to suit your own situations. I shall, however, present a few specific strategies, which you may or may not want to use, depending on the makeup of your class. Please remember that, although this is all creatively oriented and built around the dimensions of music, traditional rudiments are not neglected, nor is some history of music. Insofar as rudiments are concerned, we rely heavily on individualized instruction as provided in such a programmed text as Clough (see Bibliography), although we attempt to introduce most of the

material in class and review it in class, using sound. Some students need much of this, some none at all. We also have in our music library such taped or recorded ear training programs as Horacek, Knight, Carlsen, and the Rutgers theory records. I attempt to influence school music teachers to have one of these sets available, usually the Rutgers, not because it is the best, but because it is the cheapest.

Let us now turn to some of the materials to be covered at four levels of sophistication in each of the classes in succeeding weeks. Remember that every two or three weeks the entire group comes together for a live concert. At least two of these concerts are made up of pieces composed and performed by the students themselves. These concerts are taped for later discussions as are the mini-concerts presented in each of the sections during the regular class sessions.

At first we will be concerned with the basic dimensions or concepts of sound and silence. One sample strategy will have to suffice.

PROJECT II. An elementary exercise in sound, silence and improvising notational systems.

Equipment needed: Rulers, tape recorder, surface (desk or floor) on which to hit rulers, metronome, paper and pencil.

Principal dimensions of music manipulated: Sound, silence, texture, loudness and softness (dynamics), and form.

Procedure: Set the metronome at 60. Select a student conductor and provide rulers for the "ruler orchestra." The conductor and all the members of the class practice beating in four using this pattern.

Start the metronome and the tape recorder and continue beating in four in time with the metronome. When it appears that the entire class feels comfortable with the pattern, stop the conducting. Stop the metronome and inform the performers and the conductor as to the pattern of adding and subtracting ruler-players for increasing/decreasing the loudness and changes in texture. The student conductor then recommences his $\frac{4}{4}$ beat. The instructor must aid the student conductor at the crucial points for adding and subtracting rulers as well as instructions for dynamic changes.

After eight beats, the conductor makes a signal with his left hand to indicate that five ruler-players are to start hitting their rulers very softly exactly in time with the conductor, i.e., one ruler beat of the conductor.

After eight soft beats of the rulers, the conductor signals with his left hand that the ruler-players should gradually increase their volume of sound. He does this by slowly lifting his left hand, palm up, for eight beats.

The conductor then signals five more ruler players to start playing at the same duration (tempo or rhythm) and loudness as the first five players. After four more beats, he again slowly raises his left hand (palm up) to signal all ten players to increase, gradually, their loudness.

After eight beats of the crescendo the conductor indicates with his left hand that all players should cease playing after the eighth beat.

The conductor continues the beat with his right hand for eight beats. On the ninth beat he signals all ten players to start playing loudly. They play at this level of loudness for four beats, then the conductor indicates with his left hand for silence (cut off). After eight beats of silence he cues all players to reenter playing loudly for one measure. Then he indicates eight beats of decrescendo.

The decrescendo lasts for eight beats.

The conductor then signals the second five ruler players to cease playing. The first five continue for eight beats in a gradual decrescendo.

On the ninth beat, the conductor signals the five players to continue very softly for eight more beats. He then signals that all playing should cease.

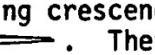
He continues his own beat for eight beats of silence and then stops. Stop the tape recorder.

Reverse the tape recorder and then listen to the playback of this composition.

All members of the class now make up a score of the piece with rulers using nontraditional signs or notation in such a manner that a person unschooled in music reading could perform as a member of the ruler ensemble without any prior knowledge of notation. Write down your version of the score with paper and pencil. Improvise your own score (symbols).

After everyone in the room has written his own version of the score, pass them around and discuss them. Which ones represent most simply and accurately the sounds and silences of the composition? Why? Are all of the dimensions of music employed in this piece represented graphically and clearly in the score? Or is that possible.

Discuss each dimension of the piece and how each was manipulated. Can you write and direct the ten ruler performers in a completely different piece? Try it.

Notice that at the point where five rulers were added that there was a sudden increase in loudness. As you probably know, the traditional way for representing crescendo is  and decrescendo . There is no way to

represent a sudden increase in loudness except by using the letter F or SFZ (forte or sforzando--sforzando refers to only one note, however, while F means loud or forte). The whole idea of representing dynamics in a score is relatively recent in the Western music notational system, although in practice or performance it probably always has been present in all musics. There are, then, two kinds of increase or decrease in loudness: sudden or gradual. Sudden changes were typical of Baroque (1600-1750) music. They are called terrace(d) dynamics. An orchestra at the court of Manheim Germany in the latter part of the eighteenth century specialized in the crescendo and decrescendo and it became a mark of that orchestra's versatility. We could write a simple score using non-traditional symbols such as ____——____ to represent terrace(d) dynamics, or we could do it traditionally in this manner P F P.

Assignment: Compose a similar piece using some similar notation to be performed next week.

PROJECT III. The pentatonic scale and canons.

Equipment needed: Trumpet, grand piano, blackboard, students' instruments.

Principal dimensions to be manipulated: Pitch, duration, simultaneity, form and style.

N.B. During all of this time, rudiments are being studied as needed and composition is proceeding in small groups, using either traditional or, at first, notation invented by class members. Remember, too, that these are sample strategies. For every one I mention, 10 more may be used.

Procedure:

A. Scales are theoretical arrangements of pitches after the fact, i.e., they follow melodies; they do not precede them.

B. Discuss overtone series and demonstrate on a trumpet and with sympathetic vibrations on the piano.

C. Discuss tunings of various cultures.

D. Introduce a folk song employing a pentatonic scale--one of infinite possibilities of pitch arrangements.

E. Use the black keys of the piano at first to introduce the sound of the so-called universal pentatonic scale, discussing whole and half steps as well as cents (100 per semitone).

F. Compose (play, sing, and/or write) brief pentatonic melodies.

G. Teach transposition of pentatonic scales and then the melodies already composed.

H. Add a drone bass (bourdon).

I. Experiment with rhythmic and timbre variants (by now this should be done in traditional notation).

J. Add an additional section to the melodies.

K. Repeat the first section--Form AB, then ABA.

L. Record and play the tapes of the recorded pieces of the students and discuss them in terms of the dimensions of music. How could they be made more interesting? What creates more interest? Why the differences in opinions?

M. Introduce the concept of a canon.

N. Compose a pentatonic canon together (may be simple imitation or it may employ inversions).

Assignment: Compose a brief pentatonic piece for whatever instruments (or voices) are available. Be sure the transpositions and ranges are correct. (Give them a handout for this if necessary.) It may be in two or more parts and may be polyphonic (canonic) or homophonic.

PROJECT IV. Modes and their transposition.

Equipment needed: Blackboard, staff paper and pencil, Liber Usualis, opaque projector, recording of Gregorian or Ambrosian chant, excerpt of recording of Mass l'homme armé of Dufay, recording of Ravel String Quartet, score of Variations on a Corsican Theme by Tomasi (woodwind quintet).

Principal dimensions of music involved: Sound vs. silence, pitch, duration, simultaneity, form, style.

Provide a chart of Dorian, Hypodorian, Phrygian, Hypophrygian, Lydian, Hypolydian, Mixolydian and Hypomixolydian modes.

Procedures:

A. Play a brief recording of modal, rennaissance polyphony (l'Homme Armé). Discuss the mode, the durations, the dynamics, the form, the timbres.

B. Play a brief recording of a section of Tomasi, Ravel, etc. What is a transposed mode? How do you do it? Formula example Mixolydian on F.G:C as F:X = B^b:F Mixolydian, then contains B^b and E^b.

C. Play or sing a familiar tune in major.

D. Change to Mixolydian with the same tonal center.

E. Perform it and discuss it principally in terms of the pitch dimension.

F. Transpose it to any other tonal (modal) center using the same formula (not interval by interval).

G. Perform as many pieces as possible and record them.

Assignment: Using your knowledge of the principles of canonic writing, compose a two-part canon employing inversion or retrograde in a transposed

mode. Have the parts copied and ready for performance. Be able to discuss your piece in terms of the dimensions of music.

Proceed with Clough as necessary. Do not forget the ear training tapes or records.

PROJECT V. Serial music.

Equipment needed: Staff paper, ordinary paper, pencil, recordings of first few measures of Schönberg's Pierrot Lunaire and Wind Quintet, recording of first few measures of Wallingford Riegger's Concerto for Piano and Wind Quintet, handout of a matrix.

Principal dimensions of music manipulated: All.

Procedure:

A. Discuss the breakdown of tonality through the extreme chromaticism of the late nineteenth and twentieth centuries. (You may want to play a bit of Strauss or early Schönberg.)

B. Discuss free tonality. Play a recording of a section of Schönberg's Pierrot Lunaire.

*C. Write the row from Schönberg's Woodwind Quintet on the blackboard. Review the concepts of O, R, RI, and I.

D. Play a brief section of the first movement of the quintet and discuss.

E. Hand out a prepared 12x12 matrix and discuss, dwelling on the importance of divisibility into parts. Play a recording of a one-line piece composed by you based on the matrix.

F. Compose a one-line piece (perhaps a cadenza) together based on the matrix. Perform and tape it.

---

*O = Original, R = Retrograde, RI = Retrograde Inversion, I = Inversion.

Sample 12x12 matrix

	0	1	2	3	4	5	6	7	8	9	10	11
0	C	E	D	C#	F	E^b	B	G	A	B^b	F#	G#
1	A^b	C	B^b	A	C#	B	G	E^b	F	F#	D	E
2	B^b	D	C	B	E^b	C#	A	F	G	G#	E	F#
3	B	E^b	C#	C	E	D	B^b	F#	G#	A	F	G
4	G	B	A	G#	C	B^b	F#	D	E	F	C#	D
5	A	C#	B	B^b	D	C	G#	E	F#	G	E^b	F
6	C#	F	E^b	D	F#	E	C	A^b	B^b	B	G	A
7	F	A	G	F#	B^b	G#	E	C	D	E^b	B	C#
8	E^b	G	F	E	G#	G#	D	B^b	C	C#	A	B
9	D	F#	E	E^b	G	F	C#	A	B	C	G#	B^b
10	F#	B^b	G#	G	B	A	F	C#	E^b	E	C	D
11	E	G#	F#	F	A	G	E^b	B	C#	D	B^b	C

G. *Assignment*: Design your own matrix. We will then proceed to composition using your own matrix.

ADDENDA

Discography

String Quartet (Ravel)
Gregorian and Ambrosian chant
Variations on a Corsican Theme (Tomasi)
l'Homme arme (Dufay)
Pierrot Lunaire (Schönberg)
Woodwind Quintet (Schönberg)

Abbreviated list of strategies arranged progressively. Asterisk indicates ones described in this paper. Each strategy may need several class periods for its completion.

*1. Organizing sound and silence.
Notational systems: Original and traditional.

2. Scales, intervals and triads: Spelling, listening and writing.

*3. The pentatonic scale and melodies. Polyphonic listening and writing.

*4. The modes and their transpositions: Listening, analyzing, composing.

5. Whole tone, artificial and original scales and polytonality.

6. Introduction to Hindemith's Craft of Musical Composition.

*7. Serial compositions.

8. Other twentieth century compositional techniques.

9. Rag, jazz and rock harmonies and rhythms.

10. Introduction to the acoustical principles of musical instruments.

11. Developing your own compositional technique.

Hierarchy of the Dimensions of Music

Sound - Silence

Pitch Loudness Timbre Duration

Simultaneity Texture Form

Style

Sample Letter for Recruitment

September 13, 1977

Dear Colleague:

We plan again this year to offer instruction in theory and musicianship in the Saturday Musicianship Classes at Washington University. Highly motivated students aged twelve to eighteen are eligible. There will be two or three sections of theory, from beginning to advanced levels. Students who are interested in applying should indicate on the form whether or not they have been in a theory class before.

As usual, the theory classes will cover at the appropriate level of sophistication, ear training, sight singing, directed listening, general musicianship, analysis, and considerable composition.

All applications must be received by September 30. The first classes will be at 10:00 A.M. on October 8 in Tietjens Music Studio, 6500 Forsyth. There is no fee for any of the classes but there will be a nominal charge for materials which may run between $8.00 and $10.00 for the year.

If you have any questions would you please call me at 863-0100, station 4585. Thank you for your cooperation and interest.

Very sincerely,

Lewis B. Hilton
Professor of Music

enclosure

LBH/md

APPLICATION FORM
SATURDAY MORNING MUSICIANSHIP CLASS
WASHINGTON UNIVERSITY

NAME ______________________________ AGE __________

STREET ______________________________

CITY ______________ STATE ______________ ZIP CODE ______

HOME TELEPHONE ______________

SCHOOL ATTENDING ______________________ GRADE ________

HAVE YOU BEEN IN THIS CLASS BEFORE? ______________

PERFORMING MEDIUM (Voice, Trumpet, Piano, etc.) ______________

HOW LONG HAVE YOU STUDIED YOUR INSTRUMENT (or voice)? __________

IN WHAT PERFORMING GROUPS HAVE YOU HAD EXPERIENCE? __________

____

____

RECOMMENDED BY ______________________________
(signature of High School Music Teacher)

APPROVED BY ______________________________
(signature of Parent or Guardian)

I understand that there is no charge for this course but that I will furnish my own materials (books, paper, etc., costing approximately $8.00 a year). I promise to attend all sessions of the Saturday Class (10:00-12:00) unless excused for sufficient reason to be given 48 hours in advance whenever possible. (If you have three unexcused absences in a row you will be automatically dropped from the musicianship class). I will complete all assignments during the year to the best of my ability.

____
signature of applicant

- -

Please detach and mail the above form to Department of Music, Box 1032
Washington University
St. Louis, Missouri 63130

The first class will be October 8, 1977 at 10:00 A.M., please plan to attend as this will be the only notification you will receive.

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RETENTION OF SONGS, STORIES, AND POEMS BY RETARDED CHILDREN

Wanda Lathom, Ph.D.
University of Missouri-Kansas City
Music Therapy, Conservatory of Music

Introduction

This study was conducted to determine whether there was a difference in the retention of materials when the structure of the message and the means of presenting it were varied. The term "message" is used in the same manner as it is used in information theory, which is any communication that is transmitted from the source to the receiver. Music therapists or teachers are constantly involved in an attempt to communicate in a more efficient manner. If the message may be viewed as a time series with events which are measurable and distributed in time, the study of communication may be more objective. The events which we call music, are human events. They are items of human behavior, composed by a person with a background of human experience that is related to the culture, and performed by people with similar cultural experiences. Sounds which form music are not random. They occur in a predetermined order and in a rhythmic structure which is often predictable. Composers do not select sounds at random. Frequencies are selected in an order to form a melody, and around a key center. Harmonies form progressions that are related to the key structure. Timbre is purposefully selected. Intensity is indicated by dynamic markings. All occur with order through time to form rhythmic patterns. Hiller suggest that "Music, sometimes defined as a compromise between chaos and monotony, appears to be the information theorist as an ordered disorder lying somewhere between complete randomness and complete redundancy." (1:110) Bands march to music, people dance to music, congregations sing hymns as the choir processes down the aisle. All of these events, and many more, are

examples of ways that music may be used as an ordered phenomena that has an effect upon human behavior. Thus, each event within this unique time series, which is called music, has a probability function. The study of the probability of events is included in information theory.

A study of Isern (2) indicated that songs were retained better than stories. In Isern's study, 104 Ss were taught a song and a story. They were then tested for immediate, recent, and remote recall. The materials were matched for conceptual level and number of elements to be retained. Thus, the results were related to the selection of materials. The generalization should not be made that just any song will be retained better than any story. The structure and content of materials are of importance. The probability function is related to ability to predict the next event, which implies familiarity with the material or many similar materials.

Information Theory

Information, as it is used in information theory, may be defined as the degree to which an event is unlikely to occur. If the next event can be predicted with a high probability, it carries little information, if it can not be predicted at all it carries maximum information. Thus, the way the term is used in the theory does not imply meaning or usefulness of the symbol. It is merely a measure of the rarity of occurrence. Naturally the information measure would change from one culture to the next. The rarity of occurrence of each symbol may be mathematically defined. In this case, it is expressed in "bits," which is a contraction of binary digits.

Songs, stories, and poems that are novel, in the sense that they are less predictable in form, choice of symbol, and number of times concepts are repeated would have a high measure of information, as defined by information theory. They have little apparent repetition. It is hard to guess the next event.

Redundancy

The word redundancy is the exact opposite of information. If the next event is predictable and highly probable, it is considered to be redundant. This does not mean that it is wasted in communication. Rather, it may be viewed as insurance that the intended message will travel with an acceptable level of accuracy from the source to the receiver.

There is much redundancy in the harmony, melodies, and rhythm of western music. However, the ability to predict the rhythm, melody, or harmony requires repeated exposure to much music of a similar style. It becomes redundant only when one is familiar with many similar examples. Through the use of information theory, it is possible to mathematically derive the degree of redundancy, just as information may be measured and expressed in binary digits. However, at this time, it is difficult, if not impossible, to compare "bits" of information in different types of media.

In this study, the other forms of media that were used were stories and poems. Words also have a predetermined order. Spelling rules are formulated to determine letter order and grammatical rules determine the order of connecting words. These are the mechanics of language and can be studied by concepts of information theory because the probability of events may be defined for members of a similar language group. However, there is also content of ideas and expression. This, too, can be studied by looking at the sequence of words and noting the probability of occurrence of the entire sequence that forms an idea. In stories, redundancy is added by having similar events repeated by central characters, repeating certain phrases of words, limiting vocabulary so the array is within the ability of children. It is this later form of redundancy that was used in selecting stories for this study.

Redundancy is also measurable in poetry. The primary ways of making poetry redundant are through

rhyme, which places restrictions on the selection of words in the total vocabulary array, form, which sets a pattern that forms verses, and the rhythm or poetic meter. Ideas and events or phrases spoken by main characters may also repeat. Because an exact measure of "bits" of information in media would not be practical and would not be a basis for comparison of information or redundancy among media, the extremes of information and redundancy and one sample that was intermediate were used rather than precise measures.

Experimental Design

Materials

Songs. Three songs were chosen by an expert in children's music who had had many years of experience in teaching songs to children. She was asked to choose three songs which would represent three levels of repetition. Repetition of musical phrases, lyrics, rhythm, and harmonic patterns were considered.

Stories and poems. The stories and poems were selected by an expert in children's literature, with many years of experience in telling stories and teaching poems to children. She was also asked to choose the stories and poems according to the extremes and middle of three levels of repetition. Ways in which repetition is used in stories include repetition of events and phrases of words. Many children's stories have one main character who performs a series of very similar events, with repetitious results of the actions. Poems also have repetition of events, as well as rhyme which limits selection of words and rhythm in the form of meter.

The materials were also submitted to experts in information theory, J.R. Pierce and E. N. Gilbert of the Bell Telephone Laboratories. Both have had considerable experience in the area of information theory. They were asked to judge the materials for levels of redundancy. Their judgement agreed with

that of the experts in children's literature and music, but they both noted that simplicity is as important a variable as repetition. Pierce agreed that "a mechanical test of redundancy would be difficult and probably unreliable." (3)

Subjects

The subjects for the study were institutionalized retarded children with a measured intelligence level of II or III (two or three standard deviations below the mean of 100). Eleven Level II and eleven Level III Ss were chosen from each of the three hospitals participating in the study (N=66). No attempt was made to choose an equal number of boys and an equal number of girls. However, other criteria for selection included hearing ability which was adequate to hear the songs, stories, and poems; speech ability which was adequate to take a verbal test; ambulation adequate to come to the music area to learn the materials; and some previous experience with songs, stories, and poems. The type of poetry that most of the Ss had been exposed to consisted of nursery rhymes. The mean age was 13.5 years.

Method of Teaching Songs, Stories, and Poems

Since Ss were chosen from three different hospitals and taught by music teachers in each of these settings, the variable of difference in presentation was quite important. To control for this, an exact procedure was sent to each teacher. Before the teaching began, the procedure was reviewed with the teacher to be certain that the exact manner of presentation was clear. Each teacher was observed, to determine that the procedure was clear and exactly the same script was followed in each of the three settings.

The method of teaching the materials was reviewed by the same experts who had selected the materials. Both were very familiar with teaching

methods used by elementary school teachers. Both experts agreed that the methods used were similar to those usually used to teach songs, stories, and poems to children and would be adequate for the study.

Order of presentation was also an important variable. If all the songs were presented after the stories and poems, it might be anticipated that they would be retained best because they were learned more recently. To control the effect of this variable, the materials were presented according to systematic randomization. On each day of the teaching schedule, one song, one story, and one poem was presented. Therefore, it took three days to present all three songs, stories, and poems. Ss were seen for half-hour sessions, so ten minutes could be spent on each song, story, and poem during each session. The teaching period lasted six days, which allowed the entire procedure to be presented twice.

Equipment. The equipment needed to teach the materials included only a piano for use in accompanying the songs, eleven chairs for the Ss, and pictures to illustrate main concepts in the materials.

Testing for Retention

Description of the Test

The retention test was divided into three parts: Recall, Chaining, and Verbal Concepts. The first was selected because it did not require a verbal response. Many retarded children score higher on tests that do not require verbalization. In testing retarded children, it is common to include items that can be answered by a pointing response or some type of selection from a group of possible answers. Thus, the first section of this test required the child to respond by pointing to items in pictures depicting important events in the songs, story, or poem. Since the ability to

speak and understand a verbal test was included in the criterion for selection of Ss, the last two parts of the test for retention required verbal responses. Each subject was tested individually. The test involved recalling items of information about the song, story, or poem. The same number of questions was asked for each type of media, and the author attempted to keep all questions simple. The answer could be given by pointing to related pictures or with single word responses.

Statistical Analysis of the Data

Differences in Groups

Intelligence and Age. Because the Ss were retarded, and of different age groups, the factors of intelligence and age had to be noted in evaluating the retention scores. When the means of these groups were evaluated, using a Hotelling's T-Square, it was evident that older and more intelligent Ss tended to score higher than younger and less intelligent Ss. This is the conclusion that might have been anticipated, when the overall amount retained is considered.

Difference in Media and Type of Media

The previous analysis only considered the amount retained, not the difference in retention of various kinds of materials. A treatment-by-treatment-by-subjects design was used to evaluate the differences among retention scores for songs, stories, and poems (media) and redundant, intermediate, and novel (type) forms of each. Since the previous evaluations by groups indicated that Ss with MI Level II and those with MI Level III were separate groups, a separate statistical analysis was made for each MI Level. The previous analyses also indicated that younger (age thirteen or younger) and older (age fourteen or older) Ss were two separate groups. Thus, age was considered in the treatment-by-treatment-by-

subjects design by including both younger and older Ss in each MI Level. Level II included fifteen older Ss and seventeen younger; Level III included sixteen older and eighteen younger Ss. Thus, factors of intelligence and age are combined in the following tests.

TABLE I

TREATMENT-BY-TREATMENT-BY-SUBJECTS DESIGN FOR LEVEL II SS

Source	SS	df	MS	F	P
Total	2555.34	296	-	-	-
Subjects	1568.90	32	-	-	-
Media	112.87	2	56.435	23.419	<.01
Type	99.46	2	49.73	2.902	>.05
Media X Type	135.82	4	33.955	9.508	<.01
Error Media	154.17	64	2.408	-	-
Error Type	334.44	64	5.225	-	-
Error Media X Type	149.68	128	1.1693	-	-

TABLE II

TREATMENT-BY-TREATMENT-BY-SUBJECTS DESIGN FOR LEVEL III SS

Source	SS	df	MS	F	P
Total	3962.73	296	-	-	-
Subjects	3244.95	32	-	-	-
Media	91.05	2	45.525	12.93	<.01
Type	48.06	2	24.03	1.32	>.05
Media X Type	41.13	4	10.28	6.71	<.01
Error Media	225.40	64	3.52	-	-
Error Type	48.06	64	18.24	-	-
Error Media X Type	195.42	128	1.53	-	-

The difference in the three kinds of media were statistically significant beyond the .01 level. Further interpretation of the difference may be made by looking at the combined mean scores.

TABLE III

MEANS OF MEDIA FROM COMBINED TYPE SCORES

Song $\bar{X}$	Story $\bar{X}$	Poem $\bar{X}$
Level II, N = 33 9.404	8.869	8.060
Level III, N = 33 7.778	6.455	6.859

The means for song materials are higher than those for spoken materials, but the difference in the means must be evaluated statistically. Therefore, the Scheffé Test[4] was used for multiple comparisons to indicate the source of difference in the means, which contributed to the significant F score for media on the treatment-by-treatment-by-subjects design. Table IV gives the results when the Scheffé Test was used.

TABLE IV

SCHEFFE TEST FOR MULTIPLE COMPARISONS IN THE ANALYSIS OF VARIANCE

Level II, N = 33		
Comparison I (N Song = 33, N Story = 33)		
Song $\bar{X}$ = 9.404	F, 2 and 64 df = .99	
Story $\bar{X}$ = 8.869	P > .05	
MS = 2.408		
Comparison II (N Song = 33, N Poem = 33)		
Song $\bar{X}$ = 9.404	F, 2 and 64 df = 6.25	
Poem $\bar{X}$ = 8.060	P < .01	
MS = 2.408		
Comparison III (N Story = 33, N Poem = 33)		
Story $\bar{X}$ = 8.869	F, 2 and 64 df = 2.26	
Poem $\bar{X}$ = 8.0600	P > .05	
MS = 2.408		
Level III, N = 33		
Comparison I (N Song = 33, N Story = 33)		
Song $\bar{X}$ = 7.778	F, 2 and 64 df = 4.14	
Story $\bar{X}$ = 6.455	P < .05	
MS = 3.52		
Comparison II (N Song = 33, N Poem = 33)		
Song $\bar{X}$ = 7.778	F, 2 and 64 df = 2.00	
Poem $\bar{X}$ = 6.859	P > .05	
MS = 3.52		
Comparison III (N Song = 33, N Story = 33)		
Story $\bar{X}$ = 6.455	F, 2 and 64 df = .39	
Poem $\bar{X}$ = 6.859	P > .05	
MX = 3.52		

The media-by-type interaction is of greater importance and can be better understood by examination of the following graph.

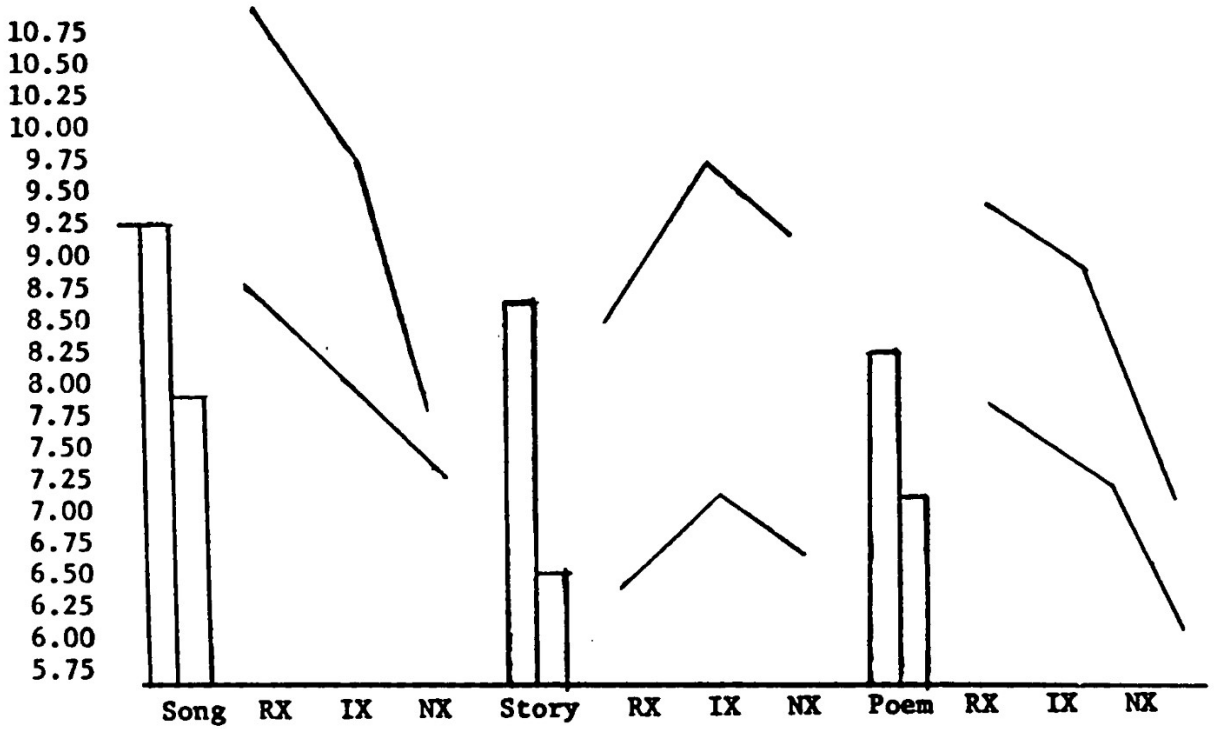

FIGURE 1. Graph of means of song, story, and poem media, and redundant, intermediate, and novel types within each media. RX, IX and NX indicate the means for the three levels of repetition within the media. R (redundant) is most repetitious, I (intermediate) is less repetitious, and N (novel) is least repetitious. The upper lines indicate MI level II Ss and the lower lines indicate MI Level III Ss. The bars are indications of means for media when all three types are combined. The higher of each pair indicates means for Level II Ss and the lower bar in each pair indicates means for Level III Ss.

On the treatment-by-treatment-by-subjects design, the differences in the type of media were not significant. This was not surprising, since the raw scores for type were combined from the three types of media, e.g. to get a total score for redundant type, the scores from the redundant story, song, and poem were combined. The same is true for total scores for intermediate and novel type. Since there was considerable difference in media, these differences cancelled out differences in type. Thus, the differences in type were not statistically significant at the .05 level.

The media-by-type interaction was significant at the .01 level. This significant interaction would indicate that retention was affected by both the kind of media and degree of repetition within the media. For example, the raw data indicates that the redundant song was retained best with considerable consistency. From the significant interaction effect, this must be interpreted as the result of the combination of the two variables, type and media.

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Discussion

The main purpose of the study was to determine whether or not materials that had apparent organization were retained better than those which had less apparent organization when they were presented to retarded subjects. Since the mean scores for the three types of each material (redundant, intermediate, novel) were not significantly different, the degree of organization may not be viewed as an independent factor. Rather, from the statistically significant interaction of media and type, it may now be stated that for subjects in this study the degree of organization within each type of media is an important consideration in retention of materials, but it does not seem to function in the same way for all materials. It should be noted that one cannot equate information or organization

across three types of materials, but three levels of repetition were agreed upon by experts in the literature as well as experts in information theory.

In both the songs and poetry, the materials with the most apparent organization and the most repetition were retained best. Those that had been rated as intermediate were retained next best and those with the least apparent organization and repetition were retained the poorest. This is the order that might have been anticipated from concepts of information theory. If the organization of the material is apparent, it is more predictable and easier to classify or enter into memory. Materials that would be high in information content, as defined by information theory, are less predictable and harder to retain. The excess of repetition seemed to facilitate retention in the same way that redundancy is used to facilitate transmission of other kinds of messages.

Because the total mean score for all three songs was much higher than the total mean score for all three poems, it seems that more cues may have been given from the music. In music, predictability may come from rhythm, melodic sequence, harmonic progression, consistent timbre, and style or form. Materials that were predictable seemed to offer more cues for retrieval in the decoding or recalling of materials. The study should be repeated for further representation of songs, stories, and poems for each level of repetition. This would control for interest, previous familiarity and any specific variance associated with a particular type of song, story, or poem.

The stories did not follow the same pattern of retention as the poems and songs. All of the groups retained the story that was intermediate in apparent organization best, the story with the least apparent organization next best, and the most redundant story the least well. This would seem to indicate that in story materials, too much redundancy may lead to boredom or less attention. Gilford suggests that

"Maybe a child whose mind wanders needs frequent surprises (lack of redundancy) to keep him interested." (5) This certainly seemed to be true in the stories. This different pattern in the stories would also suggest that rhythm or meter may have been of considerable importance in holding attention in the songs and poems.

Many exceptional children distort the message. This may be from faulty reception due to a hearing loss, failure to see important ancillary cues due to a loss of sight, or distortion due to hallucinations or fantasies. It seems likely that a high degree of redundancy in materials would be necessary to assist these individuals in learning. The additional cues from the repetition incorporated in the structure of the materials would provide more opportunities to accurately receive the message. This is one of the ways in which information theory has been used to improve transmission of a message over a mechanical channel. If there is distortion (noise) on the channel, redundancy must be increased for maximum transmission. Additional studies are needed for human channels that distort materials.

Although all of the Ss of the study were retarded, the conclusions seem equally applicable for young children of normal intelligence. Comparison of retention of normal and retarded subjects would be an important continuation of this study. However, the task is very difficult. Belmont (in Ellis, 1966) listed the following variables that must be considered for comparison of normal and retarded group's retention: "difficulty and meaningfulness of materials; degree of learning; frequency and intensity of presentation; length of retention interval; ability level (as well as etiological factors); type of task (motor vs verbal; concrete vs abstract); relative distribution of learning; and degree of verbal mediation." (6) It is not possible for the teacher to control the "channel" which in a human receiver would be the brain) but it is possible to control the structure

of the message and the manner of transmission (teaching method). Choosing materials with apparent organization and teaching for greater awareness of the organization can facilitate predictability. The results of the study seem to indicate that this is important in achieving maximum retention.

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THE RELATIONSHIPS OF SELECTED ACADEMIC, MUSICAL, AND BACKGROUND FACTORS TO GRADES OBTAINED IN UNDERGRADUATE MUSIC THEORY AND EAR TRAINING COURSES

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The relationships of academic, musical, and personal background factors to performance in undergraduate music theory and ear training courses have long been a concern of collegiate music educators. Because successful completion of basic sequences in music theory and ear training is a requirement for obtaining an undergraduate music degree at nearly all colleges and universities, educators and administrators have sought to delineate these relationships in order to assist them in locating and counseling those students not likely to succeed in these courses and thus not able to receive an undergraduate degree in music.

There have been two major limitations in similar investigations conducted in the past. First, previous investigators have investigated numerous musical and personal factors which may influence final grades in music theory and ear training courses, among them melodic, harmonic, and rhythmic aptitude, musical influences in the home, years of applied study, age, and gender. However, they did not divide the factor of academic ability or achievement into various areas of study (e.g., English, Mathematics, Science), as they did with the musical and background factors. Second, most of the investigators did not examine the relationships existing between these musical, academic, and background factors and the entire required basic undergraduate theory and ear training program. Rather, they often examined only one or two aspects of the program, such as sightsinging, dictation, or harmony, occasionally for periods as short as one quarter or semester. Therefore, taking these past limitations

into account, this study was designed to investigate the relationships existing between an academic test battery, a music achievement test battery, personal background information, and the subsequent performance of a large sample of students in the basic undergraduate music theory and ear training courses required of all undergraduate music majors.

In this study conducted at The Ohio State University School of Music, data were collected concerning students beginning the music theory and ear training basic sequences between 1969 and 1974 inclusive. The predictor variables relating to these students were classified into three categories. First, academic ability was measured by the component standard scores obtained from The American College Tests (ACT). A nationally-administered test battery, the ACT is designed to measure student ability in four distinct areas of academic study, namely English, Mathematics, Social Studies Comprehension, and Natural Science Comprehension. Second, music achievement was measured by the component raw scores obtained from The Ohio State University Music Placement Test Battery. A locally-administered test battery developed at The Ohio State University by Dr. William Poland, it comprises three distinct tests: Aural and Notational Skills, Music Recognition, and General Musical Information. Third, background information was collected concerning each student. This information included age, sex, gender, years of private study on the principal instrument or voice, years of private piano study, and participation in high school theory, history/appreciation, and performing ensemble courses.

The criterion variables in this study were the student grades obtained in the first, third, and sixth quarters of the basic two-year sequences in music theory and ear training required of all undergraduate music majors. Areas of concentration in the music theory courses include fundamentals, harmony, analysis, and creative writing. Those of the

ear training courses include sightsinging, dictation, and keyboard harmony.

The data were then subjected to statistical analysis by The Ohio State University Statistics Laboratory, using the facilities of The Ohio State University Instructional and Research Computer Center.

Pearson product-moment coefficients of correlation (r) between the predictor and criterion variables were computed. A summary of these correlation coefficients comprise Table 1.

The predictor variable which consistently correlated the highest with grades in music theory courses was the ACT Mathematics score, and these correlations were always larger than any of the other correlations calculated for a given quarter. While the other ACT component scores did not at any time correlate as well with music theory grades as the ACT Mathematics score, the relative importance of all the ACT scores to theory grades increased through the sequence. This is evidenced by the fact that by the sixth quarter of the sequence, each of the four component scores of the ACT correlated higher with the music theory grade than did any of the musical or background factors. Of the component tests of the Music Placement Test Battery, the Aural and Notational Skills test score correlated the highest with first quarter music theory grades, followed by the Music Recognition and the General Musical Information test scores. This ranking of correlation coefficients did not remain constant through the sequence, however, as the General Musical Information test score correlated the highest with sixth quarter music theory grades, followed by the Aural and Notational Skills and the Music Recognition test scores. Of the background information collected, only the years of private piano study had a significant coefficient of correlation with music theory grades (at the .01 level). However, this correlation coefficient was

Table 1

PEARSON PRODUCT-MOMENT COEFFICIENTS OF CORRELATION (r) BETWEEN SELECTED PREDICTOR VARIABLES AND GRADES IN MUSIC THEORY AND EAR TRAINING COURSES

Predictor Variables	Criterion Variables: Theory -- Course Grades -- 1st Qtr.		3rd Qtr.		6th Qtr.		Ear Training 1st Qtr.		3rd Qtr.		6th Qtr.	
	N	r	N	r	N	r	N	r	N	r	N	r
The American College Tests Scores												
English	1008	.40	630	.24	496	.35	946	.34	591	.32	491	.27
Mathematics	1008	.47	630	.36	496	.40	946	.40	591	.35	491	.30
Social Studies Comprehension	1008	.36	630	.26	496	.37	946	.27	591	.26	491	.22
Natural Science Comprehension	1008	.38	630	.25	496	.32	946	.28	591	.26	491	.21
The Ohio State University Music Placement Test Battery Scores												
Aural & Notational Skills	1165	.42	704	.31	559	.23	1084	.60	659	.52	553	.59
Music Recognition	1165	.25	704	.17	559	.17	1084	.31	659	.20	553	.14
General Musical Information	1165	.23	704	.29	559	.26	1084	.40	659	.32	553	.22
Background Information												
Age	1165	-.02	704	.06	559	-.02	1084	-.05	659	-.01	553	-.06
Gender	1165	.09	704	.07	559	.02	1084	.10	659	.03	553	.05
Years of Piano Study	1165	.15	704	.15	559	.12	1084	.16	659	.22	553	.21
Years of Study on Principal Instrument or Voice	1165	.07	704	.05	559	.04	1084	.12	659	.08	553	.08
H.S. Theory	1165	.08	704	.08	559	.07	1084	.02	659	.03	553	.02
H.S. History/Appreciation	1165	.07	704	.07	559	.02	1084	.03	659	.05	553	.09
H.S. Ensembles	1165	.08	704	.03	559	.03	1084	.05	659	.07	553	.07

NOTE: Underlined correlation coefficients are significant to the .01 level

less than the correlation for either musical or academic test scores and music theory grades in any given quarter.

Although an academic predictor variable, the ACT Mathematics test score, correlated the highest with music theory grades; a music predictor variable, the Aural and Notational Skills test score, consistently correlated the highest with ear training grades. Correlation coefficients computed between the Aural and Notational Skills test score and ear training grades from each quarter of study were much larger than any computed in relation to the music theory grades. The General Information and Music Recognition test scores correlated less with ear training grades than did the Aural and Notational Skills test score. Of the four components of the ACT, the Mathematics score had the highest correlation coefficient with ear training grades; however, all four ACT scores' correlation coefficients with ear training grades were in approximately the same range as those of the Music Recognition and General Musical Information test scores for any given quarter. The only background predictor variable which consistently correlated significantly at the .01 level with ear training grades was the number of years of private piano study, and it correlated generally as well with ear training grades as did some of the academic ability and music achievement predictor variables.

Once the Pearson product-moment correlation coefficient analysis was completed, stepwise multiple regression analyses were computed to determine various multiple coefficients of correlation (R) with each of the course grades. Table 2 contains a summary of the multiple correlation coefficients obtained between the course grades and four groupings of predictor variables.

The multiple correlation coefficients between the collective ACT scores and music theory grades were always at least as large as the respective multiple correlation coefficient between the

Table 2

MULTIPLE COEFFICIENTS OF CORRELATION (R) BETWEEN SELECTED GROUPS OF PREDICTOR VARIABLES AND GRADES IN MUSIC THEORY AND EAR TRAINING COURSES

Predictor Variable Batteries	Criterion Variables: Theory -- Course Grades --						Ear Training					
	1st Qtr.		3rd Qtr.		6th Qtr.		1st Qtr.		3rd Qtr.		6th Qtr.	
	N	R	N	R	N	R	N	R	N	R	N	R
The American College Tests Scores	1028	.51	668	.36	496	.45	988	.44	634	.37	490	.33
The Ohio State University Music Placement Test Battery Scores	1189	.47	747	.36	559	.29	1130	.63	706	.53	552	.49
The American College Tests and *Music Placement Test Battery* scores	1028	.59	668	.43	496	.47	988	.67	634	.57	490	.52
The American College Tests scores, *Music Placement Test Battery* scores, and All Background Information	973	.61	641	.45	473	.48	948	.67	615	.59	471	.55

NOTE: All multiple correlation coefficients are significant to the .01 level

collective Music Placement Test Battery scores and the music theory grades in any given quarter. The addition of the Music Placement Test Battery scores to those of the ACT offered little information to increase the multiple correlation coefficient. Indeed, the addition of the Music Placement Test Battery scores to those of the ACT offered so little new information concerning the multiple correlation with sixth quarter music theory grades that, statistically, their presence in the multiple correlation coefficient of the sixth quarter music theory grade was not necessary. Finally, the addition of the background information to the scores obtained on the ACT and Music Placement Test Battery did not significantly increase the multiple correlation coefficient with any of the music theory grades.

Quite different results were determined concerning the various multiple correlation coefficients with grades in the basic ear training courses. Collectively the ACT scores correlated well with these grades, but the addition of the Music Placement Test Battery scores to those of the ACT always significantly increased the multiple correlation coefficients. The multiple correlation coefficients between the collective Music Placement Test Battery scores and ear training grades, on the other hand, were much larger than those between the collective ACT scores and the ear training grades. As a result, the inclusion of the ACT scores with those of the Music Placement Test Battery did not produce large increases in the multiple correlation coefficients. And once again, the addition of a student's background information to the scores obtained on the ACT and Music Placement Test Battery offered so little increase in the multiple correlation coefficients that, statistically, its inclusion in the multiple correlation coefficients of the ear training grades was not warranted.

In summary, the inclusion of The American College Tests component scores as measures of specific areas of academic ability offered larger correlation coefficients with grades in undergraduate

music theory and ear training courses than had been suggested in results in earlier studies. Both the Pearson product-moment correlation and stepwise multiple regression analyses illustrate that the academic measures of the ACT scores correlated most highly with the obtained grades in the music theory courses, while the musical achievement measures of The Ohio State University Music Placement Test Battery scores correlated most highly with grades in the ear training courses. Individually or collectively, the personal background information offered far less information concerning subsequent student performance in undergraduate music theory and ear training courses than did either the ACT or Music Placement Test Battery scores.

This paper is based on the author's dissertation, "The Relationships of Selected Academic, Musical, and Background Factors to Grades Obtained in Freshman and Sophomore Theory and Ear Training Courses at The Ohio State University" (Ph.D., The Ohio State University, Summer 1978).

AMERICAN TUNE BOOK COMPILATIONS USING SHAPED-NOTE SYSTEMS, 1801-1860

A FORERUNNER OF AMERICAN MUSIC EDUCATION

David Lamar Oakley

Introduction

The data in this paper are extracted from the document, AN ANNOTATED CHRONOLOGY OF TUNE BOOK COMPILATIONS USING FOUR AND SEVEN SHAPED-NOTE SYSTEMS 1801-1860, by David L. Oakley, 96 pp., prepared for a National Endowment for the Humanities Summer Seminar in Music History, "Music in the United States Before the Civil War," directed by J. Bunker Clark at the University of Kansas, Summer 1978. The document includes data on 84 compilers of four-shaped systems whose work produced 90 compilations which appeared in 253 editions. The document also includes data on 31 compilers of seven-shaped systems appearing in 80 editions. In addition, appendices in the document account for an unusual number of publications by Andrew Law. These and some presumed editions bring the total number of shaped-note tune books during the period to well over 400. Although various dissertations and publications have dealt with aspects of the shaped-note movement, no single work has presented a comprehensive view of the movement in terms of theoretical context, teaching ideas, and geography of movement. However, it should be noted that since this paper was prepared, the Institute of Studies in American Music has announced a monograph, A CHECKLIST OF FOUR-SHAPED SHAPE-NOTE TUNEBOOKS by Richard J. Stanislaw, published October 1978.

In a sense, the shaped-note movement is a miniature study of the development of music of a Renaissance found in rural America where for a while shaped-note music was the mainstream of music. This paper will emphasize the American enterprise of music education as reflected in the entrepreneurs who brought and sold music to the people.

Terminology and Limitations

This paper is limited to character notation of geometric shapes, that is, shapes which include plane space within a parameter. Although musical character notation of the period included other types of symbols, as numbers or letters placed upon a staff, they are not included in this study. I am concerned with the notion of symbolic generalization and the degree to which the brief success of the shaped-note movement and its evolvement reinforces the theory of human behavior called "discovery theory." This paper does not deal directly with the theory, but provides a chronology to aid in that study.

Certain terms are important. The person(s) who compile, edit or amass the various published collections are called compiler(s) and the results are called compilations. The term shaped notes is used rather than "character notation" because of the exclusion of other than plane geometric shaped notation from this study. In some instances, these have been called "patent notes" because the compiler or the printer sought patent rights on the process of printing these shaped notes. Almost all of the compilations have a type of musical setting sometimes called a "fugueing" tune, sometimes spelled "fuguing" tune and sometimes spelled fuging tune. The latter term will be used in this study for that class of tune settings. Most of the compilations have pages of instruction about music in the first part of each volume. Various authors call these the "theoretical introductions"; however, these sections will be called the rudiments, which is the most common name used by the compilers.

References in the paper are bibliographic and hence no footnotes are used. Locations of volumes are identified by library symbols used by Shaw-Shoemaker.

Factors Leading to Shaped Notes

The artistic level of congregational singing in the majority of churches in New England in the seventeenth and early eighteenth centuries was so low that an effort was made to improve its quality. Between 1717 and 1721 an enterprise called the singing school was developed outside of the churches' regular liturgy or service times, but in the hopes that trained singers would provide a congregation that could worship in part by singing of songs as well as in silence.

Itinerant teachers of singing visited congregations each evening for periods of time of two weeks to a month and conducted singing schools. But in New England, about 1800, an influx of European musical selections replaced many short and musically simple American tunes. The organ had replaced the singers as the dominant producer of musical sound in some churches and the choir in others. The men surrendered the melody line to the women. Men had been a mainstay of the singing school. The itinerant singing school teacher moved from New England to the West through Pennsylvania and to the South through Virginia. He found it pragmatic to have for sale and distribution a single volume which contained all the rudiments of the "science of music" as well as a sufficient repertory of tunes.

The model compilation had both English and American origins but it led toward a fairly complex study of the rudiments of music. The new singing school teacher also found it pragmatic to include only such rudiments as were necessary to teach persons to sing at sight in a very short period of time. The concept of shaped notes removed several mental steps between seeing the note and singing it. With shapes it was not necessary to learn the names of lines or spaces or key signatures. From the outset, almost any learner met with some success, provided the music was not too complex and the music was "tuneful."

The rudiments section of shaped-note compilations included:

1. The "gamut" or scope of human singing range explained.
2. Rules to find the "mi" or leading tone.
3. The shapes of the notes and their constant relationship to "mi".
4. The syllables assigned to each shape as faw, sol, law.
5. How to sing in any key by just shifting the "mi".
6. The moods of time, meaning the speed and meter in which the tunes were set.
7. Other characters used in music as rests, the tie, and hold.
8. A few comments about expression as when to sing loud or soft.
9. Lessons for tuning the voice, meaning some vocal exercises in scalar or intervallic patterns.

The rudiments could occupy as few as three pages or as many as fifty. The majority had from five to ten pages.

The music section of shaped-note compilations usually included simple hymns in two, three or four-voice settings, fuging tunes which were short pieces with polyphonic sections and anthems and other set tunes which were generally longer through-composed pieces. The texts were almost always based on sacred materials.

The Civil War, the emergence of denominational church music boards and public school music seeking more sophisticated music, and new forms of entertainment caused the rapid decline of the singing school and its literature after 1860. A few compilers continued to print in this older style of music after 1860 and they are listed in this paper.

The Sacred Harp has endured through singing societies devoted to its preservation as have a couple of other compilations. The seven shaped-note system is used to this date by many "gospel" music publishers. But the literature has changed both in text and in manner of print. There are singing schools today but they are taught by teachers who have been trained in "normal schools" for singing school teachers.

For a considerable portion of the population in the Shenandoah Valley, Pennsylvania, Ohio, Kentucky, Tennessee, and the deep South the shaped-note compilation was the mainline of American music from 1801 to 1860.

Highlights of the Enterprise of the Four-Shaped System

William Little and William Smith in 1801 presented a method of self-teaching the science of music. More than 50 editions of the Easy Instructor exist. The first known edition is dated at 1801. Because the subsequent compilations offer changes of various sorts, a somewhat extensive annotation is offered for the Easy Instructor.

1801

William Little and William Smith. The Easy Instructor, or A New Method of Teaching Sacred Harmony. Containing, The Rudiments of Music on an improved Plan, wherein the Naming and Timing of the Notes are familiarized to the weakest Capacity. With a choice Collection of Psalm Tunes and Anthems from the most celebrated Authors, with a Number composed in Europe and America, entirely new; suited to all the Metres sung in the different Churches in the United States. [Philadelphia, 1801]. [2], 105 (i.e. 106) p. [No. 12 is repeated in paging]. CtHC. (The abbreviations of locations are taken from the National Union Catalog issued by the Library of Congress.)

Apparently it was Charles and George Webster, and Daniel Steele of Albany who began printing shaped-notes. It is not until 1848 that credit is given for "patent notes" and this is contained in the preface of William Hauser's compilation, The Hesperian Harp. According to Jackson this credit is given to Little and Smith (White Spirituals, p. 14). The copyright was obtained by G. R. Waite and Company of New York in 1802 and was then sold to Daniel Steele and Charles R. and George Webster who then applied for a patent on the shaped-note printing. A patent to cover the casting and use of shaped-note type was granted to George Webster acting as agent for his brother Charles and Daniel Steele on February 28, 1816.

There are points for argument on the identity of the inventor of the shaped-note system, but researchers seem to favor Little and Smith. A claim by Andrew Law cannot be substantiated. It is possible that Ishmael Spicer may have used "four significant characters" adapted from the materials of Andrew Adgate (see 1805) and Law may have been influenced by this. That would make Law the third person to put forward a system of shaped notes and not the second.

A part of the preface of The Easy Instructor is identical to Ralph Harrison's Sacred Harmony, London, 1784. This is an example of the common practice of compilers copying from other compilers.

Almost all subsequent shaped-note compilations will bear comparison to The Easy Instructor in format and in pedagogical and musical content, therefore the following data may be helpful.

The syllables and notation are "faw"◺, "sol" ○, "law"□, and "mi"◇, and are common to all of the editions of The Easy Instructor.

In most of the editions, the leading tone is raised in the rudiments, using the G major scale for the exemplar (Rogers, p. 87).

In The Easy Instructor all major keys are called sharp and all minor keys are called flat. No tune has more than four sharps or flats in the key signature. When an accidental has been added to the work in addition to any found in the key signature, the key is called artificial. The keys of C major and A minor are called natural or primitive. These terms seem to have been adapted from The Village Harmony, 1800 (Rogers, pp. 92-94).

With the exception of an 1802 edition, scales are introduced in both the G and F clefs in five patterns of time-values, ascending and descending, but using only the G scale (Rogers, p. 97).

Other than "faw-sol-law-mi" there are no phonic syllables or note names used (Rogers, p. 197).

There is mention of beating time with the hand. Subsequent compilers will stress this as a learning device and singing school teachers will allow it when performing. But in The Easy Instructor there is some question as to just how much beating of time was intended. In the rudiments the beating of time is suggested as an aid to the learning of "driving notes" or the ornament of syncopation. The Easy Instructor was advertised as a musical teaching system without the aid of an instructor. The pedagogical concept was to order one thing at a time. One of the teaching devices was the slide-rule which is a card used to mask half of a beat (measure) at a time. This makes it impossible to move the card and beat time at the same time. It also places the concept of the half note as integer in the minds of the learners. This concept reduces the number of moods (time signature permutations) to just four. Between 1802 and 1812 there is a reordering of the rhythmic rudiments (Rogers, pp. 76-79).

The assumption of an ordered and reasonable universe made the ordering of the rudiments of music for self-teaching seem quite feasible. Much rhetoric about music as a science was followed by many words in the early compilations. The concept

of generalization (symbols before words) will come only with the latter-day compilers.

All of the tunes are cast in one of four moods or metres: C.M. (8.6.8.6.), L.M. (8.8.8.8.), P.M. (irregular), and S.M. (6.6.8.6.) except for a few items of prose freely set as anthems (Rogers, p. 191).

Three-part hymns comprise six percent of the 1810 issues and forty percent of the 1817 issues. They are strophic, mostly syllabic, and a variety of texts are applied to the same tunes. Some expanding of melody by use of additional notes appears by 1817 (Rogers calls them "ornamental hymns"). The expansion of melody involves non-chord tones which are called transitions or appoggituras according to the compiler, but neither is treated in the rudiments of any edition of The Easy Instructor (Rogers, p. 111). Through-composed anthems decline from four in 1810 to three in 1817 and fuging tunes remain in all issues (Rogers, p. 25).

Major intervals are called greater, sharp, or perfect. Minor intervals are called lesser, flat, or imperfect. Unisons, thirds, fifths, and sixths are concords. Seconds, fourths, and sevenths are discords. The diminished form of a perfect interval, in the present day sense, is called minor. Semi-tones are presented in relationship to the pitch of G. Chord is spelled cord and many other terms vary slightly from present day spellings. As consecutive editions are released, there is a decline in the use of English terms in favor of Italian. The spelling of the names of composers and tunes varies with the edition (Rogers, p. 90).

There seems to be an abundance of printing errors. As an example, in the 1810 issues Windham, by Read, has an E-natural in the top clef against an E-flat in the alto clef in what should be a dominant chord in F-minor. In the same piece the leading tone was not raised and the seventh chord is minor and not diminished. Many "wrong" sounds can be

attributed to a combination of printing errors, horizontal voicing, the use of pure minor, and parallelism (Rogers, pp. 156-159).

Expression marks and ornaments are few because the pieces are short and linear. By 1817 The Easy Instructor employed expression symbols in about thirty percent of the tunes, the most common being the tie (Rogers, p. 161). The tie, beam, or slur means as many notes as are under the tie will be applied to one syllable of text (Rogers, p. 106). The words dot or point are used as the mark of distinction or staccato and this is indicated by a wedge ▾ above the note. This means to accent the syllable clearly (Rogers, pp. 104-105). The hold 𝄐 is in all but the earliest of editions (Rogers, p. 107).

Dynamics are achieved by "high notes soft, low notes full and bold but not harsh" (Lowens catalogue S, 1818, p. 8) and when a soft effect is desired, the number of persons singing each part is reduced. There is the implied practice of terraced dynamics but the concept of gradual dynamics does not seem to be present in The Easy Instructor. The singer of solos should be softer than the ensemble. Loud passages should never be forced. All should sing distinctly and "if the poetry is good and the music is good the accents will fall naturally" (cited by Rogers, pp. 115-122).

A repeat consists of four dots 𝄆 and the later issues will include the bar line also. A special repeat below the music :||: means the text only is repeated. The figure 3 is a term for the triplet in all editions and is explained as a diminution meaning that three notes must be reduced or diminished to the time of two notes (Rogers, pp. 102, 104, 109).

A direct (in the shape of a script w) shows where the first note on the next stave will be, this being used in most later editions (Rogers, p. 108).

In practice the rudiments were probably skimmed over. All that was really necessary was to know the shapes of the notes, their sounds, the name of the hymn or psalm, the meter of the tune and a starting pitch. The less experienced were placed beside the more experienced singers. Both men and women sang all parts except the bass.

Textual topics included God in nature, praise of and faith in God, death and sorrow, and God's judgement. By and large the textual sources were British (Rogers, p. 183).

1805

Andrew Law, The Art of Singing; in Three Parts, to wit, I. The Musical Primer, II. The Christian Harmony, III. The Musical Magazine.

The organization of Law's Art of Singing is different from that of any other compilation. He proposed to issue, in three parts, The Art of Singing, with The Musical Primer as Part I, The Christian Harmony as Part II and The Musical Magazine as Part III. The Christian Harmony had Volume I and II and was ultimately replaced by a part called The Harmonic Companion. The Musical Primer ultimately had a supplement. The Musical Magazine had six parts. The above were issued in varying combinations and in varying issues.

Andrew Law pioneered the "tune in the top part" instead of the tenor in 1793 and made the half note the basic unit of all time signatures by reducing the number of moods (Britton, p. 220). The only meter signatures were 2/4, 4/4, 3/2 and 6/4; therefore a single note could have no more than three rhythmic values (Perrin, p. 85). Tempo markings were added (tempo giusto, etc.), hence prolated time was freed from tempo. If Law had any influence on subsequent compilers, it was not in the areas of time and tempo.

Law claimed a shaped-note system as ready for publication as early as 1785 or 1786. Law may have been influenced by the four characters used in the Andrew Adgate system. Law had taught singing classes in Alexandria, Virginia in 1791 and 1972 (Eskew, p. 17) and may have followed Ishmael Spicer who advertised Adgate's system in nearby Baltimore as the newest and "most approved plan in America" (adv. October 30, 1789). Adgate's system was taught by Spicer who refers to "four significant characters." Certain similarities between Law and Adgate are evident. Both use a more European selection of tunes. Both use four symbols or shapes which make seven in number by modifications which do not alter the basic shapes. Law's system is faw □ sol ○ law △ mi ◇ , which with the addition of dots become faw □ sol ○ law △ faw □̇ sol ○̇ law △̇ mi ◇̇ . Adgate adapts from fa ⌀ sol ⌀ la ⌀ mi ⌀ to fa ⌀ sol ⌀ la ⌀ fa ⌀ sol ⌀ la ⌀ mi ⌀ . Both eventually use seven syllables and Adgate adds syllables for the semi-tones. Both issued printed sets of rudiments without tunes and then later combined the rudiments with sections of tune selections. The combination of influences of Law and Adgate does not surface until 1835 with Mason's Sacred Harp.

The striking difference between Law and any other compiler is the elimination of the staff to which he is ultimately compelled to return.

1810

John Wyeth, Wyeth's Repository of Sacred Music, or Repository of Sacred Music. Harrisburgh: Printed by John Wyeth, 1810. 120 p. CtHC, MWA, OClWHi, P.

Jackson, in White Spirituals, page 31, feels that Wyeth may have collaborated with Ananias Davisson. Wyeth had been an apprentice printer who eventually settled in Harrisburgh, Pennsylvania (in 1792) and worked on the weekly paper Oracle of Dauphin, eventually buying it. Jackson calls this an excellent imitation of The Easy Instructor, probably because

almost half of the 156 tunes are taken from The Easy Instructor (Stevenson, Protestant Church Music in America) and Lowens has traced 47 of these tunes to Walker's Southern Harmony, 1835 and 53 to White's Sacred Harp, 1844. This shows the trend toward both a market in the South and a preference for tunes by American composers.

The Little and Smith notation is used, however Wyeth credits Andrew Adgate as the source for materials for his rudiments. Syllables are me, fa, sol, and la.

1813

John Wyeth, Wyeth's Repository of Sacred Music. Part Second. Harrisonburgh: Printed by John Wyeth, 1813. 132 p. MWA (Shaw-Shoemaker 30589), OClWHi, PPiW.

There are changes in syllables from the 1810 (Part First) in that fa becomes faw, la becomes law, and me becomes mi. The same shapes are used for the notes.

According to Metcalf (p. 145) this compilation was intended for Methodists. Nevertheless it is of greater significance among shaped-note compilations.

_____. Part Second--2nd. Edition . . . . 1820. 132 p. DLC, PPiW, and facsimilie reproduction by DaCapo Press, New York, 1964, from NcWsM.

These two editions will influence a number of compilers. Rogers (p. 19) says over 25,000 copies were sold. Crouse (p. 25) calls this the first shaped-note compilation to contain a significant amount of folk and revival tunes. Lowens (Music and Musicians, p. 144) identifies 1/3 of the tunes as being of folk origin and not previously published. Lowens (Music and Musicians, p. 134) and Harley (p. 22) trace nearly half of the tunes in these editions as having been in various editions of The Easy Instructor.

Harley (p. 62) considers this a "southern" book because of the folk hymns and Lowens (in the introductory pages, viii and ix, of the 1820 facsimilie) presents a table of tunes which appear in Repository, Part Second that are found in Davisson's Kentucky Harmony, ca. 1815, Boyd's Virginia Sacred Musical Repository, 181, Carden's Missouri Harmony, 1820, Funk's Genuine Church Music, 1832, Walker's Southern Harmony, 1835, and White's Sacred Harp, 1844.

Wyeth prefaced his rudiments with an explanation of the transposition of the scale by 4th and 5th and this seems to be the model for Davisson, Carden, and William Rhinehart (American or Union Harmonist) (Perrin, p. 41). Lowens does not feel that Wyeth was a musician (Music and Musicians, pp. 150-151) but relied upon his music editor, the Reverend Elkannah Kelsay Dare, who combined the vigor of New England music with music of the Scotch-Irish-English oral tradition. Hence the folk hymn. The 1813 edition contained 149 tunes, of which 58 are claimed as new and 31 are fuging tunes. The 1820 revision contains 13 new tunes by Dare and seven by a Chapin, presumed to be Lucius Chapin. Jackson, Lowens, and others have speculated on the identity of Chapin and other authors of the "folk-hymns," but in many cases no conclusions can be reached. Jackson feels that Davisson may have collaborated with Wyeth and this would provide an even stronger link between Wyeth and the "southern" compilers (White Spirituals, p. 21).

1814

Freeman Lewis, The Beauties of Harmony, containing the rudiments of music on a new and improved plan. Pittsburgh: Printed by Looker & Wallace, for Cramer, Spear & Eichbaum and Freeman Lewis, 1814. 200 pp. IaHa, OC, OCHP.

The Beauties of Harmony is significant in that Allen D. Carden will use this to draw from for his Missouri Harmony. Carden draws both theoretical

materials and tunes from Lewis. Lewis defines 350 musical terms and Carden will use many of these in his Western Harmony and his US Harmony. Lewis will pair three-part settings with four-part settings on the same page. This eliminates crowding and Carden will use this in 1829. These and other comparisons between Lewis and Carden appear on page 26 of Crouse's dissertation.

The rudiments include the presentation of the musical characters or examples, each in a box. There are 40 such boxes. Much of the rudiments seem derived from Wyeth's Repository, for example: notes above the staff are "notes in alt," below are "doubles," flat keys are called "low" (minor) and sharp keys are called "high" (major), and the tape measurements for the metronomes are the same (Crouse, p. 26).

The section on singing ("tuning the voice") will appear in Carden's Western Harmony (Crouse, p. 26).

1816

Ananias Davisson, Kentucky Harmony. Harrisonburg, Va. n. publ., 1816. 140 pp. KyBgW, MiU-C, NBug.

All of the tunes are in four-part harmony. The syllables are faw, sol, law and me, and the four shapes are those of Little and Smith. There are a variety of spellings of terms and songs by Davisson, not just in Kentucky Harmony, but in his other compilations as well.

In the preface Davisson speaks of "practical knowledge" in defense of his musical authority: however, his pragmatism is unequalled among shaped-note compilers. In an effort to make the music simpler, he shortened the introductory materials, presuming the singers will already know some of these things (Harley, p. 37) and omitted seven

musical symbols: the accidental sharp, flat and natural, the hold, the staccato, the trill and the C Clef. (See page 3 of his rudiments and also see Eskew pages 28 and 29 for commentary.) Harley (p. 37) points out that in one of his own tunes he bothers to change the key signature to include an f-sharp to make his composition sound "right."

The success of Davisson's compilations lay not in their musical sophistication but because he was both the first shape-note compiler in the Shenandoah Valley and hence the South, but also because he based his material on the very successful Easy Instructor and Repository, Part II (Eskew, p. 56). He also enlisted the aid of singing school teachers as selling agents. Since he was the only compiler in the south who printed his own materials at that time, he was able to produce at lower costs than competitors. He will influence Steffey's Valley Harmonist, 1836 in the omission of accidental sharps and flats. Caldwell will copy much of the materials from the rudiments in Union Harmony, 1837 (Jackson, White Spirituals, p. 52).

Davisson does not mention the names of composers except beside the index entry and these are not always accurate. Lowens (Music and Musicians, pp. 145-147) compared 15 tunes which Davisson took from Wyeth's Repository, Part II., and found three which Davisson claimed as his own. Harley (p. 22) identifies 39% of the tunes as coming from the 1807 edition of The Easy Instructor and 49% of them having been published in the 1809 edition of The Easy Instructor. Eskew (p. 29) identifies about 25% of the tunes as folk-hymns.

There are 13 pages of introductory materials in the first edition. There will be only 5 or 6 pages in later editions and other compilations by Davisson. The viewpoints toward musical theory are expressed much like Little and Smith and the format is much like Wyeth's Repository, Part II (Harley, p. 35).

There seems to be no influence of Billings or his contemporaries, but 40% of Davisson's tunes are found in Nehemiah Shumway's American Harmony, 1801 reprint, some tunes are from Andrew adgate's Philadelphia Harmony, and 98 tunes are traceable to Wyeth. There is detailed information about the sources of Davisson's tunes in the introduction to the facsimilie by Lowens.

_____ . . . Edition 2. Harrisonburg, Va. Printed and sold by the author, [1818] n.d. 148 p. DLC, ICN, KyU, MWA (Shaw-Shoemaker 43817), ViHarEm (fragment only), ViU.

The list of locations of volumes is from Harley except for the last entry, ViU, which was added to the Harley list by Lowens. Fifteen tunes will be removed from the first edition and will be replaced by 18, of which Davisson claims authorship of seven. Davisson also credits a number of singing masters by name and, since he is now his own printer and seller, this enhances sales. He also credits Little, Smith, Wyeth, Billings, Holyoke, Atwell, and Peck as compilers from which he drew, but does not link names with specific compositions.

In the second edition Davisson "observes" the necessity to attend singing schools because of the moral obligation to develop the talent given by God. Also he cites the necessity to eliminate discords in church music (Harley, p. 39).

The influence of Kentucky Harmony is considerable. Lowens' commentary in the introduction to the facsimilie is summarized as follows: Funk borrows songs for his two-part settings in Die allgemein nutzilche Choral-Musik, Davisson is the printer of Carrell's Songs of Zion in 1821, William Moore follows Davisson in omission of the seven musical symbols in 1825 in Columbian Harmony, Caldwell uses 63 Kentucky Harmony tunes in 1837 in Union Harmony, Jackson uses 54 Kentucky Harmony tunes in 1838 in the Knoxville Harmony of Music Made Easy, Carden uses 111 Kentucky Harmony tunes in 1820 in Missouri

Harmony, and White and King use 58 Kentucky Harmony tunes in the 1854 Sacred Harp. Subsequent issues of the Sacred Harp and other southern volumes used by "singing conventions" contained much material from the Kentucky Harmony.

Davisson simplified not only the rudiments of music but concepts about music. Each of his editions had three parts: I. Plain and easy tunes used in church; II. More elegant and lengthy tunes for concerts and singing societies; and III. Anthems. While this concept of placing the easier material at the first of the volume does not originate with Davisson, he seems to underscore simplicity by defining grades of music varying according to the function. He eliminates the C clef for the counter-tenor and uses the G clef for all parts except the bass. He singles out a as the pitch on which most tunes in minor mode start. The teaching device of question and answer is used in the rudiments. The pyramid device is used to proportion the number of persons singing a part with fewer on melody to most on bass. Minor (flat) keyed songs should be sung softer than major (sharp) keyed songs, the bass always soft for flat keys.

Perhaps the appeal of Davisson's music lay in the movement that each part had for the singer. The making of a tune so that it is interesting is easy, but to make the harmony part equally as interesting is a problem. Davisson freely "southernized" the parts when he thought it would help and did not hesitate to cross voices. Harley studies this in detail in his dissertation, pp. 59-86. There were five editions altogether.

1816

Timothy Flint. Columbian Harmonist. Cincinnati: Published by Coleman and Phillips, Printed by Looker, Palmer, and Reynolds, 1816. 204 p. MH, CSmH, Nhi, OCHP.

The Reverend Timothy Flint was a well-educated New Englander whose varied interests included charity and possibly counterfeiting (Bean, p. 81). At the time he arrived in Cincinnati, 1815, he was appalled at the crude tastes in literature in music. He spent some time in St. Charles, Missouri, went back to Cincinnati, and in 1827 returned to New England.

In the preface to his compilation he attacks fuging tunes and he includes "slow and solemn" pieces and few tunes by American composers. There are no fuging tunes and the only agreement with other compilers of shaped-note music is the use of that kind of notation, the same as Little and Smith (Bean, p. 85). He relaxes the strict mood structure (Bean, p. 86).

Despite his strong tastes which ran counter to the trend in shaped-note compilations, he seems to have influenced Carden because the Missouri Harmony will contain 37 of these slow and solemn pieces and the opening and closing sections of the prefaces of Flint and Carden are identical.

Bean (p. 111) says that Flint may be the "amateur" who is so named as the compiler of the 1835 supplement to the Missouri Harmony.

It seems that the Morgan firm, who will publish Missouri Harmony, will hire the printers Phillips and Reynolds, and will purchase the copyright and fonts from Carden. Later Phillips and Reynolds will form their own firm and publish the 1844 Missouri Harmony (Bean, p. 80).

1820

Allen D. Carden. The Missouri Harmony. Cincinnati: Printed by Morgan, Lodge, & Co., for Allen D. Carden. 1820. 200 pp. DLC, Ladies Hermitage Association (Tennessee), 2 copies, MB, MoSHi, MoKU (Z-collection), Pvt. cy.

The Missouri Harmony has been the subject of extensive dissertations by Bean and Crouse and has received extensive treatment by Krohn in Missouri Music. Much of the data about the various issues comes from Krohn.

The title Missouri Harmony probably indicates Carden's attempt to capitalize on the westward movement. He probably proposed this compilation for his "School for teaching the theory and practice of vocal music" advertised in the Missouri Gazette, 31 May 1820 (St. Louis). Probably the lack of a sufficient Protestant market made the St. Louis attempt unrewarding (Crouse, p. 34). An advertisement in the Missouri Gazette of 27 December 1817 for the Columbian Harmonist is cited by Krohn (p. 189). Carden may have had singing school competition from S. Willison (Krohn, p. 191). At any rate, he went to Tennessee where he lived the rest of his life as a successful businessman in many fields. The publication of Missouri Harmony continued to about 1858 but after the first printing the listing of "St. Louis" on the title page is replaced by "Cincinnati."

The printing of a tune was across the top of one page and was continued to the top of the facing page, then if more space was needed the tune was continued at the bottom of the first page. When a tune was continued, there was no clef or key signature on the continuation staves.

According to Jackson (White Spirituals, p. 40) Carden acknowledges the ideas in Wyeth's Repository II (1813) as a basis for his presentation of the rudiments. The explanation of the transportation of the scale by 4th and 5th is identical to Wyeth (Perrin, p. 40). Carden also uses 43 of Wyeth's 148 tunes, 41 of Chapin's 73 tunes (The Musical Instructor), and 88 of 213 tunes in Lewis' Beauties of Harmony (Krohn, p. 193).

The pendulum lengths are rarely cited after 1808 (Crouse, p. 109) but Carden does cite them;

however, their lengths do not compare to Billings', which had been the standard (Bean, p. 186).

There are few things new regarding either the tunes or the rudiments. The counter-tenor may use either the F or G "Cliffs" beginning with the 1835 edition (Bean, p. 192) and there is an occasional alto part written in the F clef (Bean, p. 210).

There is a trend toward "northernizing" in subsequent editions. This is mostly in the materials contained in the supplements, however the influence of the book is in the south. Joe S. James in Brief History of the Sacred Harp mentions that Missouri Harmony was in use in Georgia in the 1830's and in Mississippi in the 1840's (cited by Krohn, p. 196). Tunes and materials in Moore's Columbian Harmony, 1825, are largely from Missouri Harmony (Jackson, White Spirituals, 1846).

Of the 200 pages in the first edition, only 195 are numbered. Two tunes are in two-part setting, 185 are in three-part, and 149 are in four-part.

There will be 18 more editions or printings with gradual changes toward more European content in musical taste.

1820

Ananias Davisson. Supplement to the Kentucky Harmony. Harrisonburg, Va.: Printed by the author, 1820, n.p. (no pagination). NNUP, ViHarEm.

The rudiments are contained on five pages and there are "117 new songs for Methodists" (Jackson, White Spirituals, p. 31). It is not oriented toward singing schools (Eskew, p. 44) but toward the south with more folk-hymns and fewer tunes of a New England character. New songs are by White and Davisson with evidence of input from Wyeth, Carrell, and Dare.

_____ . . . Edition 3. by A. Davisson, A.K.H. (author of Kentucky Harmony). Printed at Mt. Vernon, Va. (cited by Jackson), 1826. (Jackson cites 1826.) n.p. CLU, DNC, MH, NHi, NNUT, NcWsM, TU, TKL (2 copies), V, ViHarEm.

According to Harley (p. 30) the third edition has more of a southern harmonic tradition. This will influence Moore's Columbian Harmony, 1825, in stressing the inutility of accidental and ornaments (Jackson, White Spirituals, p. 46) and Caldwell will copy tunes for his 1837 Union Harmony.

1821

Ananias Davisson. An Introduction to Sacred Music. Harrisonburg, Va.: Printed by the author, 1821. 40 pp.

This is for three voices, treble, tenor and bass, and is aimed at "young" scholars. He simply removed the alto part from 49 tunes from other of his compilations without regard for damage to the harmonic effect (Harley, p. 32).

1822

The Methodist Harmonist. New York: Printed by N. Bangs and T. Mason, for the Methodist Episcopal Church, 1822. n.p.

The significance of this is that a committee of a church body selected the tunes. The trend toward European type of hymn composition is evident.

_____ . . . Printed by J. Collard, for B. Waugh and T. Mason, under the auspices of the Methodist Episcopal Church, 1833. 362 pp. DLC, KBB.

This is an enlarged edition and most of the fuging tunes have been omitted because of opposition

by some Methodists. The three pages of rudiments are similar to the 1817 New Brunswick Collection (Loessel, p. 160).

Stephen St. John. American Harmonist. Harrisburg: Printed by William Greer, 1821. n.p. ICN.

On Perrin list and cited by Loessel (pp. 52 and 98) as the first shaped-note compiler to mention concords and discords. There are eight pages of rudiments.

1822

Seth Ely. Sacred Music. Cincinnati: Morgan, Lodge & Co., 1822. n.p. OC-Rare Books Division.

The theoretical introduction is a condensation of J. S. Callcott's Musical Grammar. This is significant because a shaped-note compiler has included all the major and minor scales (Perrin, p. 41). In his introduction he gives a strong defense of the shaped-notes (me, faw, sol, law) rebuking criticism of the notes rather than of lazy singers who use them. He goes on to say that after a time the students should be taught the letters used to name the notes, too. Bean (pp. 90-93) elaborates on this.

1825

William Moore. Columbian Harmony. Cincinnati: Printed by Morgan, Lodge, and Fisher, 1825. 198 pp. OC-Rare Books Division (Located per Bean, p. 92), UCLA (M 2117 M 78 c).

This is of significance because the book seems to have been used in middle and west Tennessee. Moore, of Wilson County, Tennessee, registered the copyright in the District of West Tennessee April 2, 1825. He declares he followed Davisson heartily, especially in tossing out as useless the accidentals,

the hold, staccato, direct, and counter clef. The tunes are largely from Carden and Davisson (Jackson, White Spirituals, pp. 44, 46).

Ananias Davisson. A Small Collection of Sacred Music. Harrisburg, Va.: Printed by the compiler for Stephen D. Puller, July 1825. 64p. ICN.

There are 61 tunes, of which 50 are in three voices. The six-page introduction was adapted from the Kentucky Harmony. There is a preponderance of northern tunes, perhaps meant for a different public. The volume is small in physical size. This resembles Davisson's Introduction to Sacred Music, 1821, in size and content (Harley, p. 33).

_____ . . . Mount Vernon, Rockingham County, Va.: Printed by the Author where he now resides, 1826, 64p. NNUT, ViHarR.

An authorized facsimilie of the book has been printed by University Microfilms: International, Ann Arbor, 1978. The tunes are taken chiefly from the Kentucky Harmony and Supplement. Thirty of the tunes are in three-part and do not come from Kentucky Harmony and the three-part setting was achieved by removing the alto part from the Kentucky Harmony four-part settings. The harmonic values are destroyed and the momentum of the few fuging tunes is destroyed. Further, all instructions as "Flat key of" are eliminated, leaving the singer to figure out whether the work is in major or minor. Since there are no accidentals except in the key signature, this became a challenge. Misspelling of tune titles is common and even the wrong titles are assigned certain tunes. The index seems to be correct. There are five four-part tunes. Many of the tunes have more stanzas of text than Kentucky Harmony which indicates congregational use.

1829

Allen D. Carden. United States Harmony. Nashville: Printed by John S. Simpson, for self,

1829, 176 p. T, UCLA (M 2121 C 17 7).

There are some four-part and some three-part settings. The significance, perhaps, is that at times the tune is placed at the top in highness of pitch with the other voices sounding below the melody, both in three and four-part voicings. The tenor voice line is moved from the inner part to top stave at times. (Cited by Crouse, p. 100, who examined the Tennessee State Library copy and printed the facsimilie of the title page on page 97 of the dissertation.)

John Cole. Union Harmony, or Music Made Easy. Baltimore: Printed by William and Joseph Neal & Jess Cole, 1829. n.p. DLC. ICN.

John Cole was a pupil of Ishmael Spicer of Baltimore singing schools and by 1802 was himself a singing school teacher using chiefly round notes. He apparently was of influence in the towns around Baltimore (Fisher, p. 216). Cole tended to feel the characteristic styles in the tune books to be of poor taste (for example, the fuging tune, parallelism, the folk-hymn, etc.). He published at least 13 tune books between 1800 and 1842 (Fisher, p. 221). It is not certain that this is the same Cole, however it would seem that he might publish at least one compilation of shaped-notes just to keep the "good literature" before the rural public. Baltimore introduced music in the public schools in 1843 and the shaped-note style of music gradually became an adult, rural activity in that area (Fisher, p. 222).

The compilation had the four shaped-notes of Little and Smith but the hand was used to learn the names of spaces and lines in the G and F clefs. There are six pages of rudiments. Loessel examines this compilation on page 98 of his dissertation.

1831

David L. Clayton and James P. Carrell. Virginia Harmony. Winchester, Va: Printed by Samuel H. Davis. 1831. 167 p. DLC, NcD, Vi, ViU.

The preface contains statements regarding the necessity to upgrade music. Songs are reprinted per se from Songs of Zion, 1820 (Jackson, White Spirituals, p. 35) and they are less rural than those of most contemporary compilers. Sixty-five tunes appearing in Virginia Harmony had been published by Davisson (Carrell had been a collaborator with Davisson) but only two were composed by Davisson (Jackson, p. 36). Seventy-five of the Virginia Harmony tunes will be used by Funk in Genuine Church Music, 1832 (Eskew, p. 106.

The compilers comment in the introduction that four character solemnization is an unnecessary step in the way of getting to European notation (Perrin, p. 41). On page ii, the compilers are "of the belief that four shape use was an intermediate step toward learning European notation, or it was for those people who would never learn to read round notes because of lack of time, interest, or instruction."

According to Eskew (p. 111) this is probably the first shaped-note compilation to use the tune "Amazing Grace." It appears as "Harmony Grove" on page 19.

The rudiments make mention of the term "Patent Notes," and the ease of learning them.

1833

Henry C. Eyer. Union Choral Harmonist, or Union Choral Harmony, or Union Choral Harmonie. n.p. n.d.

_____ . . . Edition 10 . . . .1839. DLC.

Loessel (pp. 185-188) shows the introduction of instrumental parts to accompany the vocal parts (facsimilie from DLC copy) with the instrumental parts shown in round notes and the vocal parts in the four-shaped notes.

1834

James H. Hickok and George F. Fleming. Evangelical Musick. Pittsburg: Printed by G. Fleming for the authors of Carlisle, 1834. n.p. DLC.

This compilation has 23 pages of rudiments of which the last eight are in round notes. The tunes are also printed some in shaped notes and some in round notes and this, plus the syllabic changes, probably marks the trend toward exclusive use of round notes. The rudiments give the four shapes of Little and Smith, the names of the notes and seven syllables, fa, sol, la, ma, ro, na, and mi. The ma, ro, na source is unknown (Loessel, p. 209) but is similar to those of Adgate. The beat of triple time is similar to present conducting patterns and some of the time moods are expressed in numerical notation, C = 2/2 for example, and music is divided into two parts, melody and harmony. The latter is a break from the ordered science of rudiments of music. A new approach aesthetically can be sensed. The melody goes to the sopranos and the part is called first trebel but is still printed on the third stave. Instrumental parts are inserted in round notes and do not just accompany but have separate melodic and harmonic functions. Loessel treats this compilation in detail (pp. 208-213) and includes facsimilies from the DLC copy. The instrumental parts are called "symphony."

1835

Timothy B. Mason [and Lowell Mason]. Ohio Sacred Harp. Cincinnati. [1835, possible 1834]. n.p.

This appears in the Perrin dissertation and on the Jackson list (White Spirituals, p. 25). It is called the first edition of Masons' Sacred Harp by Loessel (p. 202). There is a 20-page introduction which includes the four shaped-notes with seven solmization syllables, however the learner is encouraged to disregard the shape of the syllables. Subsequent editions are printed in both round and shaped notes (Jackson, p. 17).

Lowell Mason and Timothy B. Mason. Masons' Sacred Harp or Eclectic Harmony. Cincinnati: Published by Truman and Smith, [1835, possibly 1834]. n.p. ICN.

In general, the Masons divide music into rhythm, melody, and dynamics. They use American terms for note values, as whole note (Perrin, p. 70). From here on out, mostly modern time-beating patterns are used (Perrin, p. 78). The moods or modes of time are replaced by double measures (2/4 and 2/2), triple measures (3/2, 3/4, and 3/8), quadruple measures (4/4, 4/2, and 4/8), and sextuple measures (6/4 and 6/8). (Cited by Loessel, p. 205).

_____. . . . New Edition . . . . 1836. 232 p. Private Cy.

It is uncertain how many editions there are; Groves "American Supplement" states 18. However, Perrin (p. 43) says that shaped-note printings are found through at least 1846. The later editions contain a question and answer review session after each section of the rudiments, a practice which will be common hereafter, especially in compilations of seven-shaped notes.

William Walker. The Southern Harmony, and Musical Companion. New Haven, Conn: Printed by Whiting, for William Walker, 1835. 232p. UCLA (M 2117 W 15 s).

The above is from the Jackson collection. Jackson (White Spirituals, p. 61) identifies an

issue of 216 pages which he assumes as 1835 located at ScSp.

Walker, like his brother-in-law Benjamin Franklin White, becomes a legend when he uses his personality to organize and perpetuate societies devoted to shaped-note singing.

1836

John W. Steffey. The Valley Harmonist. Winchester, Va: Printed by J. W. Hollis, 1836. 167 p. IcN. ViU.

In the first edition Steffey follows Davisson's practice of omitting accidentals other than in key signatures. His book contains eight pages of rudiments and 46% of his tunes are folk-hymns which is more than his contemporaries publish in the Shenandoah Valley (Eskey, pp. 119-120). The tunes are in three-part settings with the textual sources not given (Eskew, p. 117).

_____ . . . . Edition 2. Harrisonburg, Va: Printed by Henry T. Wartmann, 1845. 336 p. ICN. NcWsM, ViHarEm, ViHarR, ViHarT, ViHi, ViU.

The second edition is much larger and the use of accidentals is adopted, along with a question and answer method in the rudiments (Eskew, p. 121). Two William Walker tunes are used and of the additional materials only 11% are folk-hymns. Significant is the introduction of the music on two-line staff, which appears in exercises for tuning the voice (Eskew, p. 116).

1837

William Caldwell. Union Harmony or Family Musician. Maryville, Tn: Printed by F. A. Parham, 1837. 151 p. UCLA (M 2117 C 12u).

This is very close to Davisson's Kentucky Harmony. Sixty-three of the 145 tunes in this compilation are taken directly from the Davisson book and Caldwell claimed authorship of many tunes, which meant he simply supplied new harmonic settings. One of these was "Amazing Grace." He also took four tunes from Supplement to the Kentucky Harmony, and in turn much of his material was then used bodily by Jackson in Knoxville Harmony, 1838 (Jackson, White Spirituals, pp. 49-53). Caldwell had been a singing school teacher for about 15 years when Union Harmony came out. He had a few unusual terms which resulted either from misprints or his own inventiveness; for example, the crotchet rest which is notated --/-- and called a suttlon or sutton (Jackson, pp. 49, 50).

1838

John B. Jackson. Knoxville Harmony. Madisonville, Tn: Printed by A. W. Elder, for D. & M. Shields and the Author, 1838. 200p. UCLA (M 2117 J13k).

Seventy-five of the tunes are found in Caldwell's Union Harmony, 54 can be traced to Davisson compilations and 42 are found in both Union Harmony and Kentucky Harmony. There are 33 tunes in 5-tone scales (Jackson's term) and a number of popular tunes with sacred texts, such tunes being "Home Sweet Home" and "Turkey in the Straw" (Jackson, White Spirituals, pp. 53-54).

B. F. White and E. J. King. The Sacred Harp. Printed and bound in Philadelphia, for the authors, of Hamilton, Ga., 1844. 262p.

The Sacred Harp represents a class different from any of the other four shaped-note compilations. It is used by people who preserve and protect this system from any outside influence toward change. It is not only a closed musical system and body of literature, it is a closed standard of performance.

Benjamin Franklin White was born September 20, 1800 near Spartanburg, South Carolina. He shared his musical experiences with his brother-in-law, William Walker (they had married sisters). Legend has it they co-authored Southern Harmony and Walker went north to have it published but used only his name, hence estrangement. Not long after the publication of Southern Harmony in 1835, White moved to Harris County, Georgia, where he edited the local newspaper, The Organ, and in which he published, one by one, the tunes that were to appear in Sacred Harp. (Source: Joe S. James, A Brief History of the Sacred Harp, 1904, pp. 28-30.)

There is not much known about E. J. King. An E. L. King is listed among a revision committee, but James feels this is an error and that it should be E. J. Apparently, King's contribution was mainly one of composer-arranger and White generously listed him as co-compiler (Ellington, p. 38).

The popularity was not in the material as it was not that different from other compilations. Perhaps the success was in that the "sing" had become a type of worship in itself and B. F. White was adept at getting the book marketed (Ellington, p. 39). Ellington devotes part of Chapter IV of his dissertation to this theory.

White had to get his book adopted by the singing school teacher. Also, since community sings diminished in frequency after a singing school, he organized a "convention," with chairmen, that met regularly (Ellington cites James, p. 39). He organized the "Southern Music Convention" in 1845 with the first session in Huntsville, Georgia. This became the parent convention and White wrote the rules and prescribed the use of Sacred Harp. From 1845 to 1867 White was in control, but in 1868 E. T. Pound, a member of the committee of the Southern Musical Convention and himself a compiler, advocated the use of other books. There was a split (Ellington, p. 42).

The Sacred Harp users of the Southern Music Convention went to the Chattahoochie Music Convention, which had been organized in Georgia in 1851 first meeting 1852 and had been staunch defenders of the Sacred Harp (Ellington cites: Earl V. Thurman, The Chattahoochie Musical Convention 1852-1952, East Point, Ga., by Author, 1952, p. 4).

The rudiments are in the same order as those in Walker's Southern Harmony and Carder's Missouri Harmony (Ellington, p. 24). White abolishes some moods and increases time (in seconds) for performances. The harmonic preference was root in I and V. The voicings are in three-part more than four-part in 1844, but will increase to by and large all four-part in the 20th century revisions. There are four concords, the unison, 3rd, 5th, and 6th. The tenor is frequently paralleled in 3rds, 4ths, or 5ths. The remaining parts were usually rhythmically in unisom with the tenor but in contrary motion. There are numerous parallels in 4ths, 5ths, and octaves. Voices are crossed at will. There is no appropriate place designated for the opening or closing of chordal sequences. Whether it was done at all does not become known until there are cadential spaces, and even then it may have been by accident. The tunes are based on melodies and melodic fragments which were a part of a Celtic background: modes, incomplete use of major and minor, and parallelism of parts. The texts reflected a theology of dissenting hymn writers, i.e. Watts. "Gapped scales," diatonic scales with the 4th and 7th omitted if major and the 2nd and 6th omitted if minor occur, and in minor most leading tones were not raised but are automatically supplied by the singer. (These data are from Ellington, pp. 51 through 66.) Various editions, reprints and revisions continue to today.

1846

George Hood. Southern Church Melodist, or Southern Melodist. Philadelphia: Published by Hagan and Thompson, 1846. n.p. DLC, ICN.

According to Metcalf (p. 245) Hood (1807-1882) was an early historian of American sacred music. He published both shaped notes and a figured bass. The Southern Melodist (title cited by Jackson and Metcalf) was a single musical publication by Hood. Perrin (p. 71) cites Hood's use of American terms for note lengths as whole, half, etc., and Perrin and Loessel (p. 99) cite the title as Southern Church Melodist. There are 19 pages of rudiments and the use of the compilation probably excluded the South (Loessel, pp. 207, 223).

1849

Charles Dingley. Devotional Harmonist. New York: Published by George Land and Levi Scott for the Methodist Episcopal Church, in regular and shaped-note editions, 1849. n.p. DLC.

The preface cites the need for a greater number of metres. A committee assigned compilation to "C. Dingley, Esq." The section of rudiments is 18 pages long and has a question-answer unit after each part, yet seems disjointed. The rudiments use both fa, sol, la, mi and do, re, mi, fa, sol, la, si. The DLC copy has a property stamp which indicates use by a church in New York. (These data are cited by Loessel 207, 224 and 225). Perrin (p. 71) cites the use of American terms for the length of notes as whole, half, etc.

1850

Charles Warren. Missouri Harmony, Revised and Enlarged. Cincinnati: Printer not indicated, Published by William Phillips & Co., Stereotyped by E. Morgan & Co., 1850, 270 p. DLC, ICN, ICU, CU, MoSHi, UCLA (M2117 c17w), Private Cys (2).

This is a revision of Carden's Missouri Harmony. Bean (p. 111) calls this the ninth edition. There was a new copyright granted 12 July 1850. The preface was wholly re-written. The alto or C clef

was abandoned and all treble parts were printed in the G clef. There was a new order of vocal parts with the top (tenor) stave containing the melody, then alto, treble, and bass. The printing of the F clef sign was changed. The harmony moves in block fashion and this is achieved by re-writing the melodic movement of parts other than the tune to make them less melodic and to remove voice crossing. Some pick-up notes are reversed. The pages being longer, tunes are printed on the same page where possible rather than going across paired printings. (These items are cited by Crouse, pages 82 through 85.) The Bean dissertation makes many comparisons, using facsimilie photos from the 1850 and earlier editions.

Highlights of the Enterprise of the Seven-Shaped System

1807

Andrew Law. The Art of Singing.

The curious combinations of the publications of Andrew Law are explained in detail in the section on four-shaped notes. The Art of Singing had three parts: I. Musical Primer, which later had a Supplement; II. Christian Harmony, which had Volume I and Volume II, and was later replaced by the Harmonic Companion; and III. Musical Magazine which had Parts 1, 2, 3, 4, 5, and 6. These appeared in various combinations; sometimes dates were included in the title page, sometimes not.

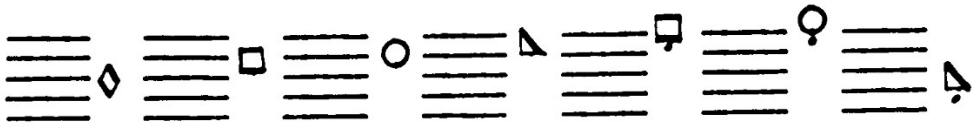
________. Musical Primer: Philadelphia: Printed by Anderson & Meehan. n.d. 16 p. MWA (Shaw-Shoemaker 23192), MiD-B.

The Law seven shaped-note system is as follows:

Faw □ , Sol ○, Law ◺, Faw □̇, Sol ó , Law ◺̇ , and Mi ◇ .

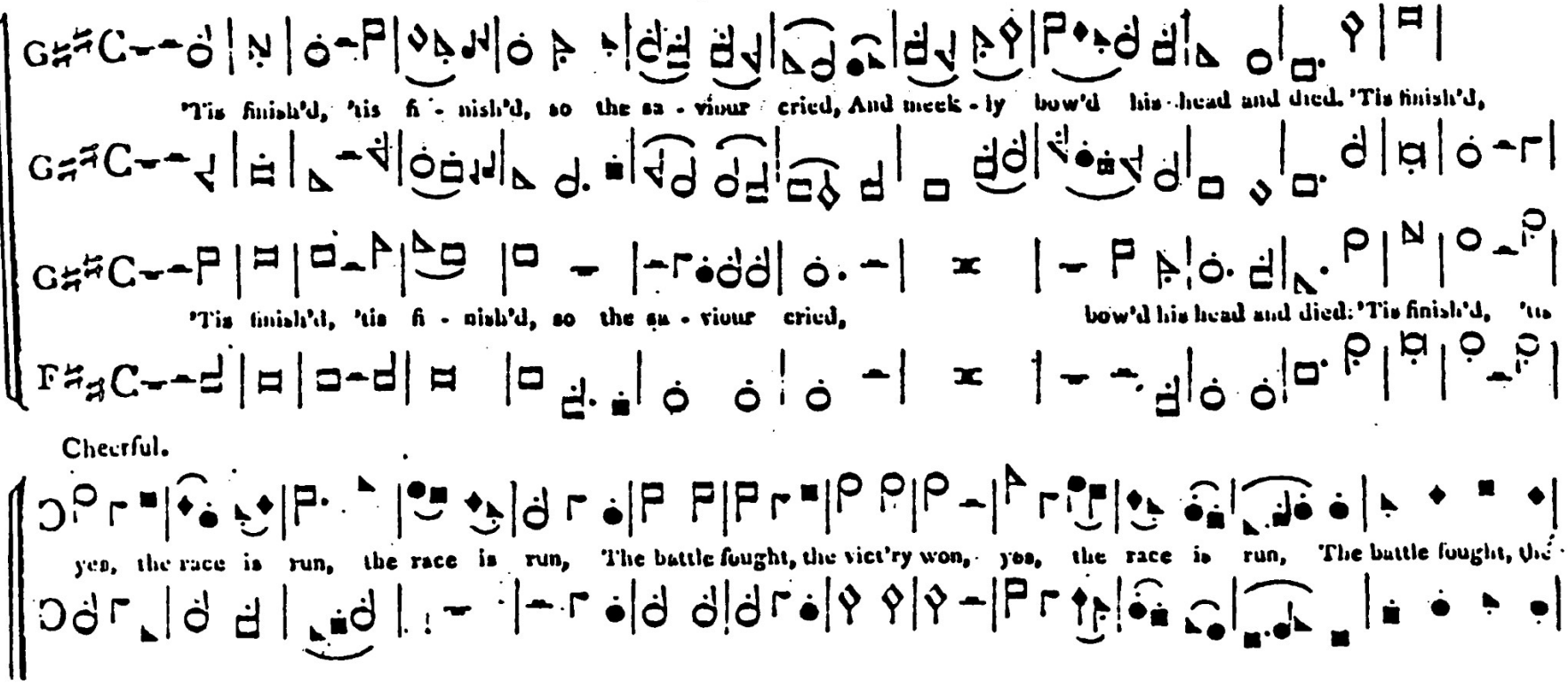
There were no staffs used and only four syllables. The dot would be placed under the note if descending. He is probably the first to publish seven shapes as a system. Since there was no staff it is easiest to illustrate the system by showing a facsimilie from Law on the following page.

The Supplement to the Musical Primer introduces a ledger line beside the seven shapes while defending the use of no lines. The following is a representation. Note that the lines do not run through the note, only beside it. The second ledger line is G. With the ledger lines it is not necessary to place dots above or below notes to indicate ascending or descending action.



_____. The Art of Playing the Organ and Pianoforte. Philadelphia: Printed by Jane Aitken for the author, n.d. 8 p. MWA (Shaw-Shoemaker 20529, 17900 q.v.).

This contains no music but does propose a seven-shaped note system without staff for instrumental music. There is not much difference in this and the other seven shaped system of Law except that the instructions show the shapes in relation to a keyboard. The date of this is estimated at 1810.



The Law Seven Shaped-Note System. from Law, Andrew, Musical Magazine, Number Second, Philadelphia, printed by Jane Aitken, n.d., p. 122

1822

In Paris Mons. Jeu de Berneval, a pupil of Galin, used figures to designate the seven degrees and introduced what he called monogamic signs. This is per W. E. Hickson, cited by Perrin (p. 14) and see also F. H. Gibson, The History of Shaped or Character Notes, Boston, F. H. Gibson Co., 1889. This is not used in American compilations.

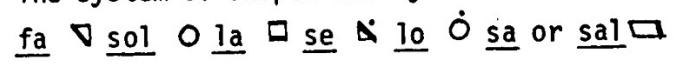
1830

Norristown New and Much Improved Musical Teacher or Repository of Sacred Harmony. Norristown, Pa: Printed by D. Sower, Jr., 1830. n.p. DLC.

The compiler is unknown but there is reference to "By a Professor of Music." The preface also contains a brief history of notational changes which refers to the four-shaped systems as "absurd" in that it is too easy and one would never learn the gamut (Loessel, p. 263).

The notation principles are derived from both Little and Smith and Law in deriving the shapes, but the w is left off the syllable names as being softer and adaptable to more genteel and graceful singing (cited by Loessel, p. 262). Perrin cites the syllables with the w in his dissertation but removes them in his article, "Systems of Scale Notation," (p. 258). There is an unusual system for notating rests with symbols that resemble notes and have stems which produces confusion with notes. Tempo markings are given as 4/60 which means four quarter notes in a measure at a rate of 60 quarter notes per minute. Likewise there is 2/48, 3/90, etc.

The system of shapes and symbols:



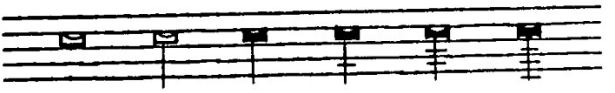
But there are six other sets of syllables for the same shapes which are for various purposes. The compilers call this "syllabication" and this unique system is cited in detail by Loessel (p. 264) who provides a facsimilie from the DLC copy (p. 261).

The other sets of syllables are:

fa	la	sa	le	so	la	me	fa
fa**	sol	la	le	lo	sa	me	fa
fa	so	sa	le	sol	la	me	fa
fa	sol	la	ba	do	na	me	fa
do	re	me	fa	sol	la	si	do
fa	sol	la	fa	sol	la	mi	fa

*To be applied to ascending and descending the scale.
**Best in reading tunes.

The time value system for rests is as follows:



From page 18 in the compilation (cited by Loessel, p. 265).

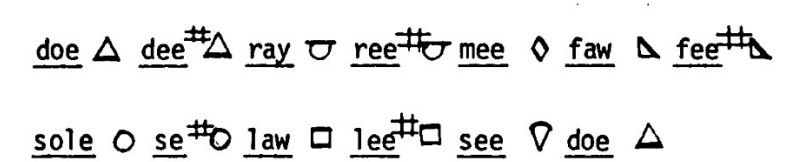
1846

Jesse B. Aikin. The Christian Minstrel. Philadelphia: Printed by T. K. and P. G. Collins, Stereotyped by L. Johnson & Company, 1846. n.p. DLC.

This seven-note system remains in use and is the most common of all the shaped-note characters:

doe △ ray ⌣ mi ◇ faw ◺ sol ○ law □ see ▽

Aiken also presented syllables for accidentals:



There was a dispute over ownership of a seven shaped-note system between Aikin and Alexander Auld (see 1847); however, the Aikin system remained the most copied. Aiken threatened the Funk people in 1877 with suit and the Funks stopped printing using the Aikin characters (Jackson, White Spirituals, pp. 352-353).

Aikin used only 2/2, 3/2 and 6/4 (Perrin, p. 85); he excluded the minor scale stating the natural minor scale does as well (Loessel, p. 270). The use of only three time indicators and one scale for all minor was logical simplification to Aikin who said it all sounded the same to the ear. The pitches of G and g appear as the middle line (3rd lines) of the bass and treble staffs respectively since that pitch seems to be the middle of the voice range. It also makes reading of either clef by anyone possible and makes it simple to adapt instruments to the music. Therefore, the key signature is eliminated since it's only relative. At the start of a tune the key is indicated as "Key of F," etc. Finally the aesthetic notion creeps in as music is divided into pitch, length, and force.

This is the outset of a new system as by this time the four-shaped notation is being forced to succumb to pressures to modernize and the seven-shaped system seems a part of the solution.

There seem to have been many editions published from Philadelphia, New York, Boston, Wheeling, Cincinnati, Lexington, and Columbia.

1847

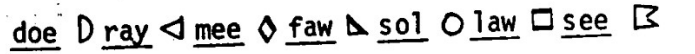
Alexander Auld. Ohio Harmonist. Cincinnati: Printed by J. A. and V. P. James, for Alexander

Auld and Joshua Maetin, 1847, n.p. DLC.

The compilation has three parts and while all three parts use the seven shaped-note system of Auld, parts one and three use seven syllables and part two uses four syllables. Auld claimed priority over Aikin in inventing a seven shaped-note system. He claimed his invention dated from 25 December 1835 and was introduced into his classes and approved by most (Jackson, White Spirituals, p. 337).

Auld laments singing in churches being left up to the choir and feels that there should be congregational input in the singing. He is very definite that non-Christians should get out of the choir.

The Ault shaped-notes are:



He claims ownership of the terms doe, ray and see.

1848

W. H. Swan and M. L. Swan. Harp of Columbia. Knoxville, 1848. n.p.

This appears in the Perrin dissertation and in Jackson's list of seven-shaped compilations (White Spirituals, p. 323). Woolley in the preface to the facsimilie of Sacred Harp calls this the first seven shaped-note book. It has, however, lasted because of its use by "Old Harp Singers" who hold periodic singing conventions in the East Tennessee area.

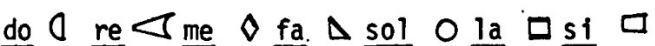
The Swan shaped-note system is:

This is in use today by "Old Harp Singers."

1851

Joseph Funk and Sons. Harmonia Sacra, Edition 5 (a seven shaped-note continuation of the four shaped-note Genuine Church Music). Mountain Valley: Printed by Solomon Funk, for the Authors, 1851. 322 p. ViHarEm, ViHi, ViU, Private Cy.

The Funk shaped-note system is:



1853

T. K. Collins, Jr. Timbrel of Zion. Philadelphia: Printed by T. K. and T. G. Collins, for T. K. Collins, Jr., 1853. n.p. DLC.

The shaped notes are those of Aikin's Christian Minstrel, 1846, but the rudiments, though similar, do not have a question-answer section. In the 12-page rudiment section, Collins describes his method as "inductive," therefore "progressive." He converts the four-part fuging tunes to vertical harmony so they will be in good taste for worship (Loessel, p. 294).

Jackson (White Spirituals, p. 323) listed the publication as 1854.

Levi C. Myers. Manual of Sacred Music. Mountain Valley, Va: Printed at the Office of Joseph Funk and Sons, 1853. 127 p. DLC, ViHarEm.

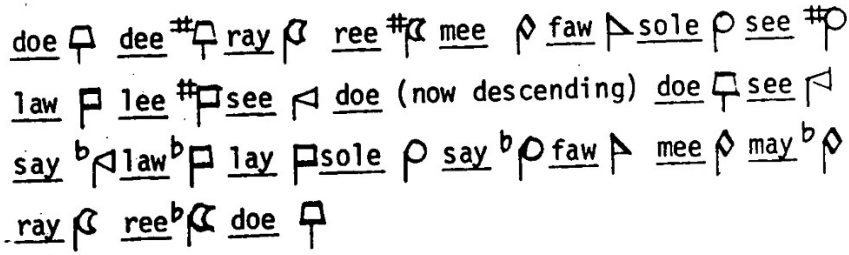
The Funk seven-shape system was used. The text sources are given. Eighty-one of the 153 tunes are published for the first time and two of those are revival spirituals although 20 have a a chorus which is a characteristic of the revival-type hymn. (Data cited from Eskew, p. 136.)

1866

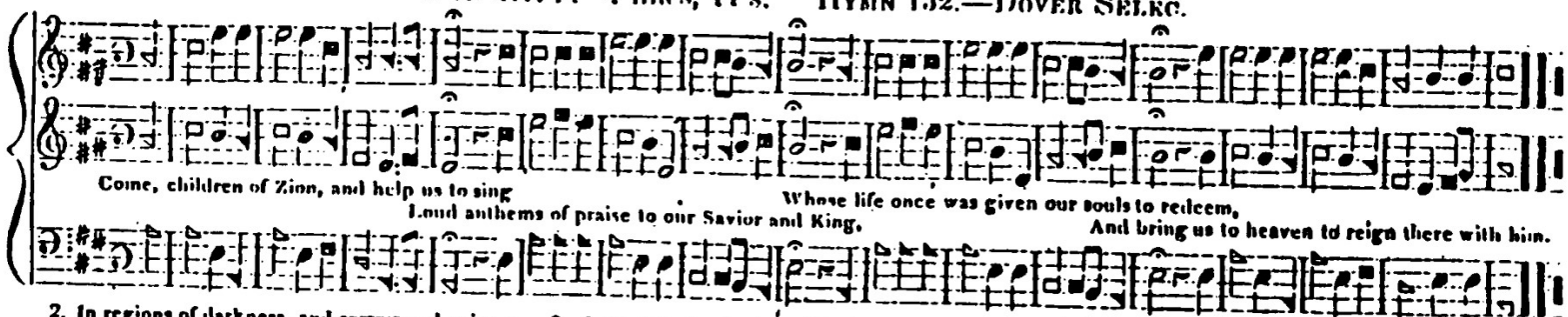
William Walker. Christian Harmony. Philadelphis: Printed for Miller's Bible and Publishing House, 1866. n.p.

At this point the use of seven shaped-note systems seems to increase (Perrin, p. 52) and the significance of this compilation is that everything is modern except the use of shaped-notes and the retention of a separate staff for each voice part. Songs by composers formerly outside the realm of shaped-note compilations, as Lowell Mason, are used. There is another factor that this compilation represents and that is the "normal school" which has by this time become an active business. In a sense, it is a singing school for singing school teachers not taught by itinerants, but taught to pupils who come to the teacher. The training is more intense and the materials more sophisticated in the European sense. This continues today in various forms.

Walker had his own shaped-note system as shown below.



METRE 11. WESLEY. 4 lines, 11's. HYMN 132.—DOVER SELEC.



2. In regions of darkness, and sorrow and pains;
We all lay in ruins, in prison, and chains;
But Jesus has bought us with his precious blood,
The ransom provided to bring us to God.

3. O come to the Savior, and take up the cross—
Seek treasure in heaven, count all else but loss;
His mercy invites us, then let us comply—
O why should we linger when he is so nigh;

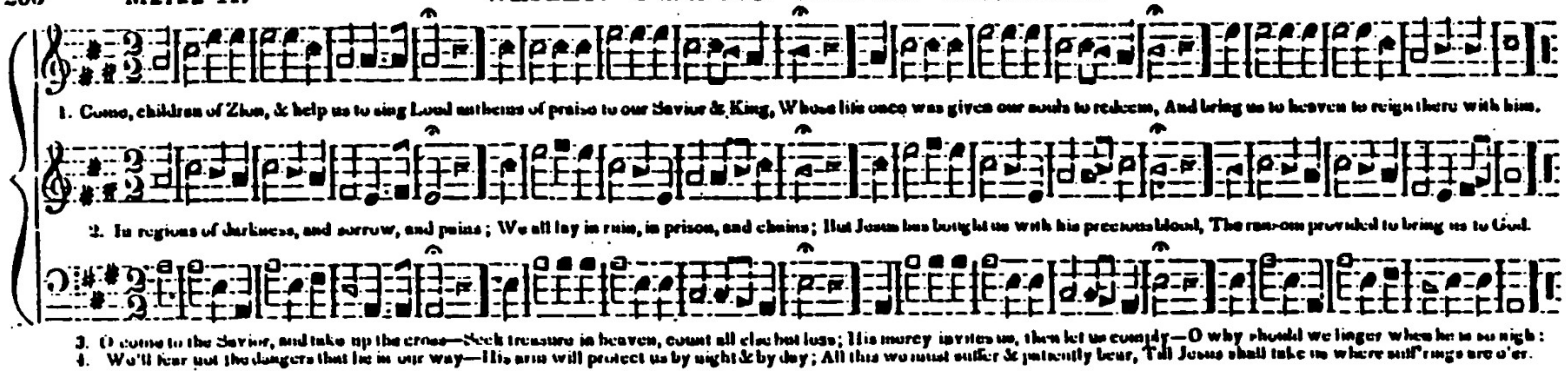
4. We'll fear not the dangers that lie in our way—
His arms will protect us by night and by day;
All this we must suffer, and patiently bear,
Till Jesus shall take us where sufferings are o'er,

92

The four-shaped system of Little and Smith

from: Joseph Funk, Genuine Church Music, Edition 4. Mountain Valley: Printed by Joseph Funk and son Benjamin, 1847, 288 p. Courtesy of private owner--from Funk's personal library

200 METRE 11. WESLEY. 4 lines 11's. HYMN 132.—DOVER SELEC.

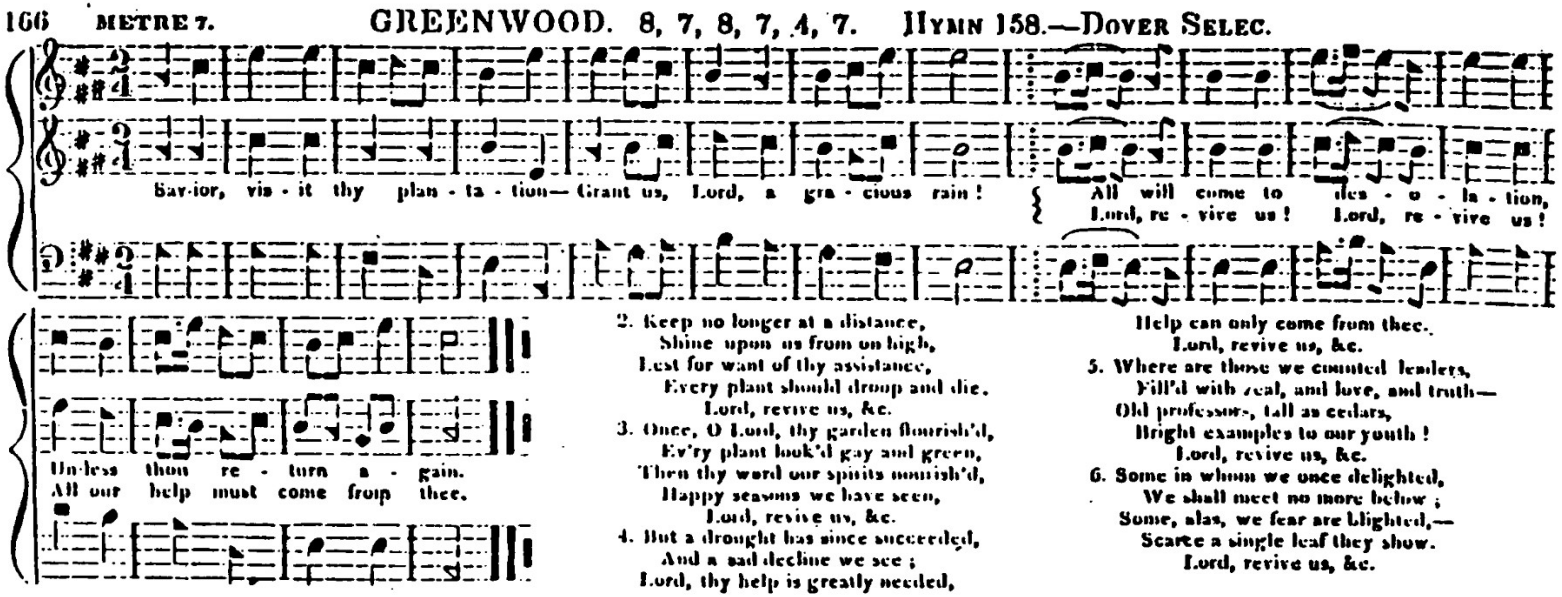


83

MEG

The seven-shaped system used by Funk

from: Joseph Funk and Sons, Harmonia Sacra, Edition 5. Mountain Valley: Printed by Salomon Funk for the Authors, 1851, 322 p. Courtesy private owner-- from Funk's personal library



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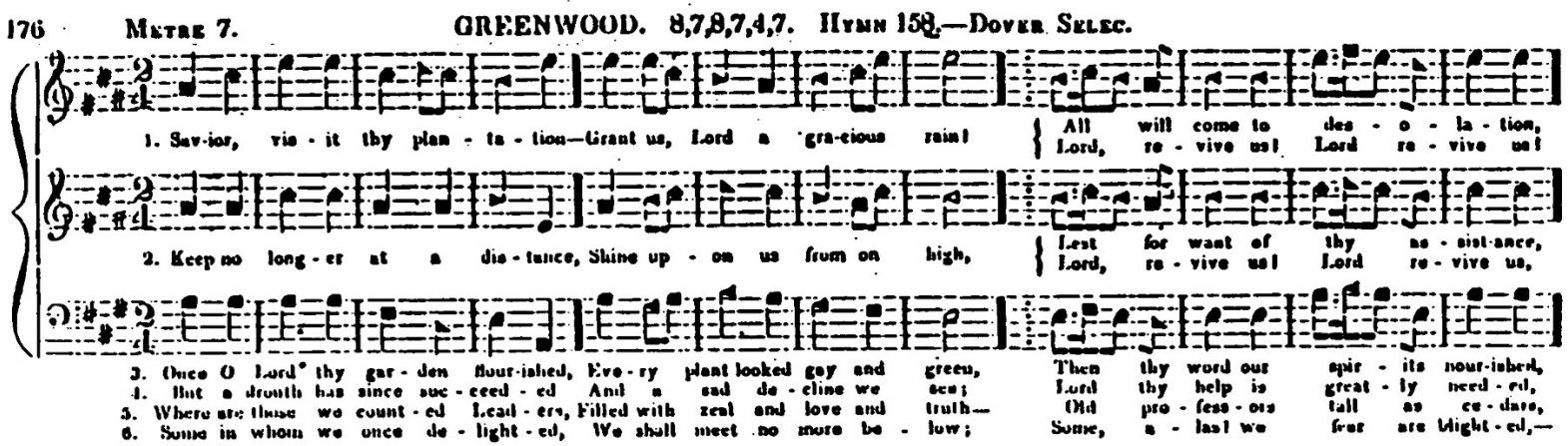
306

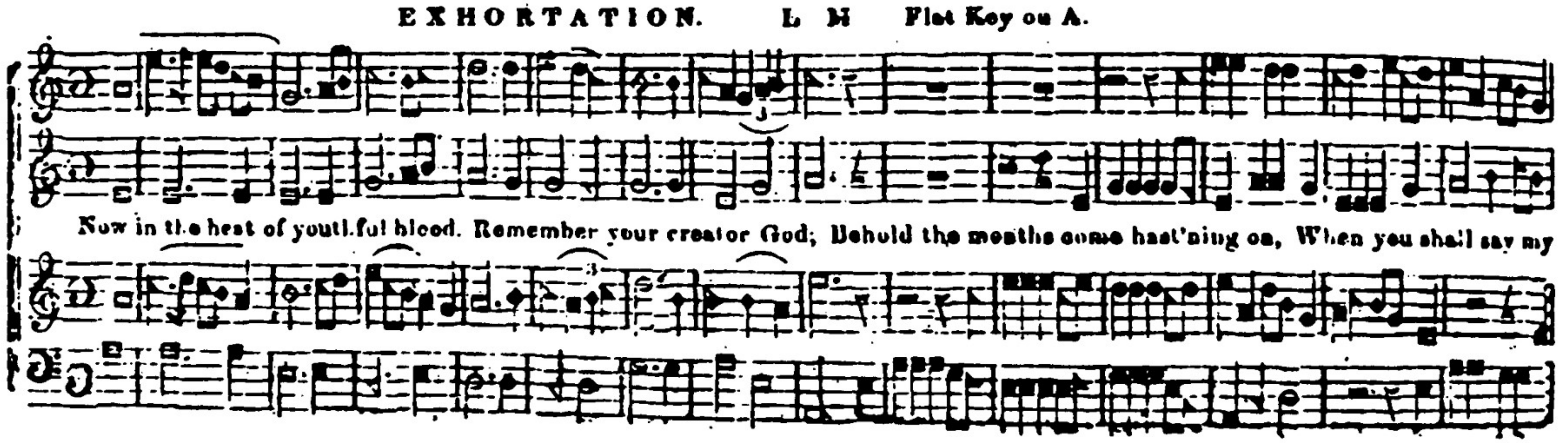
The four-shaped system of Little and Smith

from: Joseph Funk, Genuine Church Music, Edition 4. Mountain Valley: Printed by Joseph Funk and son Benjamin, 1847, 288 p. Courtesy of private owner--from Funk's personal library

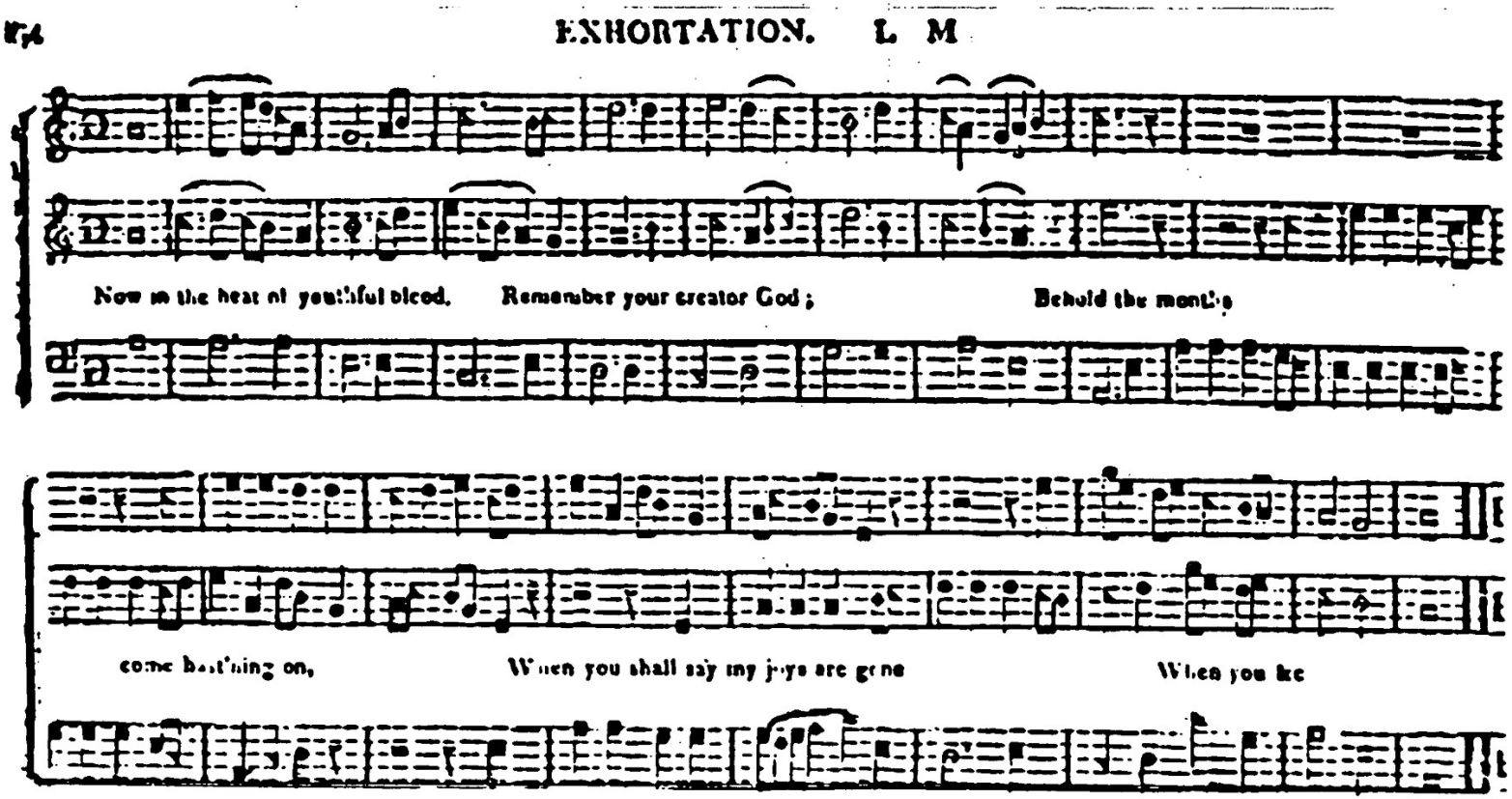


The seven-shaped system used by Funk

from: Joseph Funk and Sons, Harmonia Sacra, Edition 5. Mountain Valley: Printed by Salomon Funk for the Authors, 1851, 322 p. Courtesy private owner-- from Funk's personal library



"Exhortation" from Kentucky Harmony by
Ananias Davisson, 1816, p. 82



"Exhortation" from A Small Collection of Sacred Music
by Ananias Davisson, 1825. (Note: only 3-parts.
Alto part is removed destroying fuging tune effect)

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ABSTRACT

SAMUEL COLERIDGE-TAYLOR: AN ANALYSIS OF SELECTED PIANO WORKS AND AN EXAMINATION OF HIS INFLUENCE ON BLACK AMERICAN MUSICIANS: A SOURCE BOOK FOR TEACHERS

John C. Batchman, Ed.D.
Washington University, 1977

Samuel Coleridge-Taylor is probably the first internationally known Black composer. Born in 1875 of an African father and an English mother, this Anglo-Black composer visited the United States three times before his death in 1912. Coleridge-Taylor and his visits exerted a great deal of influence on Black Americans, especially the Black musicians, which is still felt today.

Chapter one of this dissertation deals with biographical information on the composer and his two children.

The influence on Black American musicians by the composer and his visits to America are dealt with in Chapter two. His three visits are discussed in detail. This is followed by a discussion of the results of his visits.

Beginning Chapter three is an introduction to the piano works of Coleridge-Taylor, together with classifications of these compositions. The last portion of this chapter deals with the analysis of selected piano works.

Chapter four serves as a summary in which a discussion is made of the style of Coleridge-Taylor in his piano works. The last chapter contains a thematic index of most of the piano works, together with information which, hopefully, will be of help to teachers of piano. This information includes a classification of difficulty, general remarks on possible problem areas in the performance of these compositions and historical information on the composition is given when available.

ABSTRACT

PERSPECTIVES FOR DEVELOPING PRINCIPLES AND GUIDELINES IN THE CONSTRUCTION OF THE GENERAL MUSIC CURRICULUM FOR AMERICAN ELEMENTARY SCHOOLS: AN ECLECTIC APPROACH

Rene Boyer, Ed.D.
Washington University, 1975

The need to defend music education as a vital part of the curriculum is becoming increasingly evident to the contemporary music educator. For many years the discipline of music in education has frequently been regarded and treated as a special or extra-curricular subject and has therefore been considered by certain educators, administrators, and parents, as being superfluous in the real task of education.

In order to combat this problem the music educator must address himself, not only to the problem of defining explicitly and coherently the aims and objectives of his particular area of specialization, but also have a substantial philosophical as well as theoretical reason to serve as a basis for both his justifying the role of music in the curriculum and for developing the music education curriculum.

The achievement of these goals can best be pursued by a method which, first of all, takes into consideration the historical development of music education. It should also focus on those philosophical theories and psychological approaches to learning that have influenced the particular trends evident in that development, while paying attention to the social, political, and cultural factors that have determined its direction.

In this dissertation therefore, after surveying the major trends and directions that music education has followed until the present decade (focusing on early childhood K-6), we turn our attention

to the proposition of two rationales--adult versus child centered--which facilitate the task of presenting succinctly the numerous philosophical theories of education which can be thought of as undergirding the construction and development of curricula. We then consider Essentialism and Pragmatism as those two philosophies which best represent the polarities implied in the child versus adult duality which has been set forth.

We proceed by focusing attention on two major psychological learning theories--Associationism/Behaviorism and Gestalt--in an attempt to determine the kinds of strategies that have been used in the execution of the music education curriculum. The treatment of such psychological learning theories is considered of particular importance because they are closely linked with the philosophical rationales that undergird curriculum development.

With the foregoing background and analyses completed, we conclude this study with the proposal of a set of eclectically developed principles and guidelines which have been arrived at as a result of our previous investigations.

The principles, which we have chosen to present as the Five C's, stress the construction of a kind of curriculum which considers the mutual development of competence in musical skills (performance, technical, and aural), of critical ability, the ability to conceptualize, and creativity, which all come to fruition in a consciousness of the musical aesthetic experience. Such a curriculum is fully integrated in that it combines both the cognitive as well as the affective constituents of learning that are crucial to the total development of the individual in the educative process.

When the full import of these principles is grasped by the educator and used wisely in the development and construction of a music education curriculum, they will hopefully obviate the need

for the constant movements back and forth between innovation and tradition that seems to characterize the process, not only of music education, but also of general education. This will be possible since we have attempted to combine in these principles those facets of traditional approaches, tried and true, with the characteristics of the innovative processes that are most suitably adapted to the needs of the learning community.

Finally, although the burden of the consideration of music curriculum construction is to be found in the study of the elementary years, especially in the historical section, the principles which emerge are generally applicable to grades K-14.

ABSTRACT

MUSIC IN CHAUCER: TROILUS AND THE DREAM POEMS

Linda C. Ferguson, D.M.A.
University of Missouri-Kansas City, 1977

The poetry of Geoffrey Chaucer (ca. 1340-1400) has long been viewed as a rich and reliable compendium of information on many subjects, including music. Both literary and music scholars acknowledge the abundance of musical allusions in Chaucer's works. For the most part, however, literary scholars have tended to dismiss musical references as conventional ornaments, and while music historians have recognized Chaucer's poetry as an available primary source of information, they have seldom considered the allusions in their poetic contexts. In this study, an attempt is made to arrive at statements regarding musical practices and attitudes in the society represented by this literature. Furthermore, the relationship of the musical allusions to their literary contexts is established.

The following poems form the basis for the project: Troilus and Criseyde, The Book of the Duchess, The House of Fame, The Parliament of Fowls,

and the Prologue to The Legend of Good Women. Because extensive prior knowledge of the poems on the part of the reader is not assumed, discussion of each poem is introduced with basic information, including date, sources, occasion, plot, themes, and general interpretations, before the musical implications are described. A systematic extraction of musical allusions was undertaken for each of the five poems. The numerous references include harps, bells, pipes, horns, trumpets, clarions, tabors, carolling, dancing, and singing, as well as explanations of music of the spheres, descriptions of music in nature, and several intercalated lyrics. Music is depicted as vital to societal functions, including worship, courtship, the military, and the hunt. Allusions are grouped to demonstrate their structural and thematic significance to the poems in which they appear; each grouping constitutes a section which focuses upon a particular aspect of music, be it an instrument, a practice, a form, or an attitude. Related sources are cited in many cases, to provide a more complete medieval frame of reference for musical aspects which are treated by Chaucer, and which carried, for Chaucer's audience, associations that are not obvious to the modern reader. Suggestions derived from earlier Chaucer commentary have been extended by means of musical research and speculation; in many cases, new proposals are offered regarding the significance and interpretation of musical allusions.

It is concluded that musical allusions establish and support many integral themes in the poems, including the ideas of consonance and dissonance in music, love, and nature; deafness to reason; mental, spiritual, and physical awakening; attainment of immortality; and the mediation and reconciliation of opposites. Moreover, music is frequently employed as a means of foretelling the future, and to support characterization.

It is summarized that Chaucerian musical allusions may be categorized under two headings: music

of the heart, and music of reason. The former delivers an emotional expression to or from a character, and is usually depicted as practical music (i.e., music literally sung, played, or danced). Music of reason, which usually involves speculative, or theoretical, music, relies upon the basic concept of proportionate relationships between numbers. Through such devices as the symbol of the harp and the intercalated lyrics, Chaucer demonstrates that music of the heart and music of reason are resolvable. Reconciliation of opposing forces is a recurrent theme; such resolutions, achieved when the elements involved conform to a prescribed order, are invariably expressed in musical terms. The idea of music provides, therefore, a philosophical key to the reconciliation of such dualities as heart vs. reason, and senses vs. intellect. Medieval music, as represented in writings, functions as an affirmation of this reconciliation and of belief in an ordered universe.

ABSTRACT

THE EFFECTS OF DIFFERENT FAMILIAR AND UNFAMILIAR MUSICAL TIMBRES ON MUSICAL MELODIC DICTATION

Donald Louis Gephardt, Ed.D.
Washington University, 1978

Musical timbre, which is defined as a multidimensional, psychological attribute of musical tone, often is assumed to have little or no effect on the musician's ability to perceive pitch. At the college level the music-major student is expected to attain criterion levels in skills of musical dictation, which refers to the written transcription of heard musical material. This heard material most often is presented on the piano, because of its availability in the classroom, or on a variety of sound sources in recorded, programmed formats. The question arises, does this variable sound

source have an effect on the student's ability to notate heard, melodic pitch patterns? Also, does relative familiarity with a particular sound source brought about through performance contact with that same sound source, aid the subject in these dictation tasks?

Due to the many variables present both in any musical sound source itself, as well as in modes of dictation presentation, a pilot study was carried out to determine optimum ways of "standardizing" or presenting these variables. Using the results of this pilot study, five hypotheses were formed, stated in the null form. The independent variables of differences in timbre, familiarity of timbre, envelope of the sound source, length of the melodic sequence and amount of task experience were investigated as to their possible effect on the dependent measure--a test of melodic dictation created by the author. Fifty, music-major, freshmen-sophomore subjects from three Long Island, New York colleges were grouped into five categories of like instrumentalists and tested individually in a dictation test of 140 melodic sequences of from two to six pitches in length (equal number of each length). The melodic sequences were presented in seven different timbre sources in random order: B flat trumpet, E flat alto saxophone (both steady-state envelope sources); guitar, piano (both rapid-decay envelope sources); synthesizer (saw-tooth waveform), Mixed I (each successive trial in a different timbre) and Mixed II (each successive tone in a different timbre). The synthesizer, Mixed I, and Mixed II treatments included both steady-state and rapid-decay sound envelopes. The first pitch for each sequence was given and subjects had no foreknowledge of the exact sequence length. The task involved notating each pitch past the first in "whole-note" notation. Results were reported as error means for each, individual melody length. Each treatment was assumed to be of equal "difficulty" level although the actual musical material differed.

The repeated-measures design was analyzed by the BMDP-2V computer program and the Newman-Keuls post-hoc comparisons procedure to reveal where significant results occurred. Results revealed that differences in timbre, envelope of the sound source, and length of the melodic sequence all have a significant effect on melodic dictation tasks at the .01 level. Familiarity of the timbre source was not significant, although there is a definite suggestion that familiarity with the source affected performance. Three of four groups of like instrumentalists obtained their best score on their familiar timbre. Task experience also was not significant, although sophomores (49.2 percent error) obtained slightly better scores than the freshmen (55.0 percent error).

ABSTRACT

AN EVALUATION OF MASSED AND DISTRIBUTED PRACTICE FOR THE TEACHING OF MELODIC REPETITION ADMINISTERED BY CLASSROOM TEACHERS AND A MUSIC SPECIALIST

Kristin K. Gerth, M.M.E.
University of Missouri-Kansas City, 1978

The problem of this study was to obtain evidence that children would achieve a higher level of competency on a music concept when practice with the concept was supplied by the classroom teacher, in addition to the regular music periods or distributed practice, than children who received practice only in the regular music class or massed practice.

The purpose of this study was to compare the achievement of second and fourth grade students who were instructed by AVII model materials during a regular music class schedule with the achievement of second and fourth grade students who were instructed with AVII model materials during the regular music class period and given additional practice

with the concept by the classroom teacher.

The study was limited to the effect of treatment on achievement of one task, melodic repetition. The classes receiving massed practice heard five to eight examples during their music class period. The classes receiving distributed practice heard three examples daily, in the music class and regular classroom.

A quasi-experimental, post-test only, repeated measures research design was used for the investigation. A criterion instrument was constructed to measure achievement.

The primary data consisted of the subject responses on the criterion measure for achievement of the musical task, melodic repetition. Amount of practice, scheduling of practice, and grade level constituted secondary data. Oneway frequency distributions and ANOVA were used for testing the hypotheses.

The findings in this study indicate that grade level effects achievement when the amount of practice is held constant. The fourth grade students achieved and maintained a higher identification level of the concept stimulus than did the students in second grade. The children who reached the mastery level on the post-test were all fourth grade students.

In this study, the amount of practice and scheduling correlated highly with the achievement on the post-test and retention test. Students receiving massed practice, exclusively within the music class, scored higher on the test than the students who were given daily, distributed practice. The presentation of eight examples during the instructional period had a greater effect on memorization and identification of the concept than did the daily practice of three items.

Subject to the circumstances and limitations of this study, it was concluded that children did

not achieve a higher level of competency on the music concept when practice with the concept was supplied by the classroom teacher or distributed practice, in addition to the regular music periods. Children who received practice only in the regular music class, or massed practice, did achieve a higher level of competency on the concept. Also, grade level was related to achievement in the identification of melodic repetition. The fourth grade students had a higher achievement level than did the second grade students.

ABSTRACT

DISCUSSION AND TRANSCRIPTION OF THE THIRTEENTH-CENTURY MIDDLE ENGLISH RELIGIOUS MONODY, WORLDES BLIS

Daniel William Goodell, Ph.D.
Washington University, 1978

The primary objective of this dissertation is to provide a performance-edition of Worldes blis, a thirteenth-century Middle English religious monody. Worldes blis appears in three manuscripts from widely separated areas in England. The lyric appears without music in one GB Ob MS. Digby 86, and with music in GB Ob MS. Rawlinson G.18 and GB Lbl MS. Arundel 248. Each of the three versions is studied in terms of its provenance (and that of its manuscript), of the verbal text, of the monodic setting, and (in parvo) of text in relation to monody.

The discussions of provenance are based on information provided by the contents of each manuscript as well as dialectal/linguistic indices found within the lyric itself. The lyric's verbal structures are examined, and a translation and phonetic transcription are given. Of particular concern is the treatment of final <e>, which is examined in terms of monodic stress. The placement of pitches above final <e> strongly supports the view that

<e> was not only usually pronounced but carried more than minimal stress and therefore was phonetically likely to be realized as something like /ɛ/ or /e/, rather than as /ə/. The two monodies are discussed, and the performance-transcriptions are then given.

The version of Worldes blis MS. Digby 86, without music, is "underlayed" to the monodies of MS. Rawlinson G. 18 and MS. Arundel 248. Various performance considerations of Worldes blis are discussed.

ABSTRACT

CADENTIAL EMBELLISHMENTS IN GERMAN KEYBOARD MUSIC OF THE SIXTEENTH, SEVENTEENTH, AND EIGHTEENTH CENTURIES

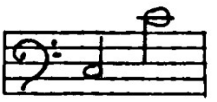
Maureen A. Jais-Mick, M.M.E.
University of Missouri-Kansas City, 1978

A Cadential Embellishment is defined as "a treatment of the final chord(s) in both middle and final cadences which may range from a simple octave leap or passing tone to complex arpeggiations or scale patterns." It must be independent of the composition in which it appears; that is, capable of being removed without altering the work.

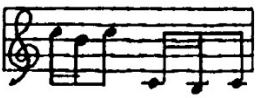
Introductory material presents pre-sixteenth century cadential formulae taken from works of Adam of Ileborgh (1448), Conrad Paumann (1452), and other contemporary sources. Succeeding paragraphs propose the existence of improvised Cadential Embellishments in later keyboard performance practice while Chapters One through Nine contain extant embellishments provided by composers for: (I) Dance Suites, (II) Preludes, (III) Fugues, (IV) Latin Church Music, (V) Chorale Preludes, (VI) Sonata/Concerto, (VII) Chamber Music, (VIII) Variations, (IX) Miscellaneous Compositions.

Within each chapter are nine divisions of Cadential Embellishments:

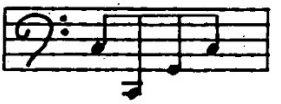
I Embellishments based upon the simple octave leap:



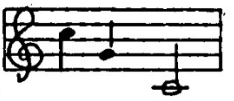
II Embellishments based upon the octave leap, but with more variety in its treatment:



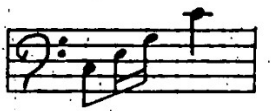
III Embellishments based upon the octave leap, plus the intervals between tonic and dominant:



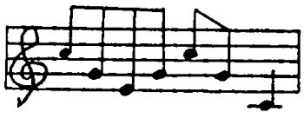
IV Embellishments based upon the intervals between tonic and dominant:



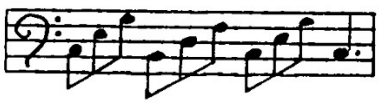
V Embellishments based upon a simple arpeggiation of the final harmony:



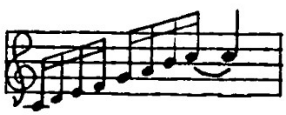
VI Embellishments based upon a varied arpeggiation of the final harmony:



VII Embellishments based upon arpeggiation of the final harmony, but with the addition of passing tones and an occasional foreign harmony:



VIII Embellishments based upon conjunct motion:



IX Miscellaneous Embellishments:

A final chapter, dealing with differences in style among modal and tonal Cadential Embellishments, improvisation of embellishments, and addition of embellishments to cadences which lack them is the goal of the thesis; the preceding chapters are considered the necessary foundation for such a discussion.

ABSTRACT

AN EXPERIMENTAL STUDY OF THE RELATIONSHIP
BETWEEN MUSICAL NOTE-READING
AND LANGUAGE READING

Daniel Lew Roberts, M.M.E.
University of Missouri-Kansas City, 1978

The problem of the study was to investigate the effects of a regular program of practice in note-reading on the rate of word-reading (RWR) in below normal readers. Level of pretest RWR scores, sex, and age were identified as variables in the study.

The purpose of the study was (1) to evaluate the RWR gains of fifth grade students of below normal RWR who were given a six-week program of daily note-reading practice on a keyboard instrument, and (2) to compare these results with the RWR gain of fifth grade students of below normal RWR who were not given the program of daily note-reading practice, when pretest RWR scores, sex, and age were held constant.

The research was a separate sample pretest-posttest experimental-control equivalent materials true-experimental design. Achievement in RWR was sampled in one grade level of below normal readers who were enrolled in remedial reading classes.

The instrument used for measurement was the Basic Reading Rate Scale (BRRS), Forms A and B, by Miles A. Tinker and revised by Ronald P. Carver (Revrac Publications: Silver Spring, Maryland, 1971).

The sample of thirty-six subjects consisted of students who were enrolled in fifth grade remedial reading classes in the six elementary school of the Grandview Consolidated School District No. 4 Grandview, Missouri. All schools have predominantl white populations and are in the lower- through

upper-middle socio-economic bracket. Although all subjects in fifth grade remedial reading were used, eighteen subjects were randomly designated as the experimental group, and seventeen were randomly designated as the control group. Complete sets of data for thirty-three subjects were obtained.

Form A of the BRRS was administered as the pretest. Subjects in the experimental group were instructed to practice for speed for ten minutes each school day for six weeks on specially prepared note-reading sheets. These exercises increased gradually in difficulty according to numbers of notes played. All subjects were then posttested with Form B of the BRRS, and the data were computer-processed for statistical significance by one-way analysis of variance. Planned comparisons were analyzed by a Scheffe test of difference between means.

No significant gain in RWR was demonstrated by subjects in the experimental group as a whole, but subjects who pretested in the lower half of the group did increase significantly over the control group. No significant difference was demonstrated according to sex or age.

Within the limitations and circumstances of the investigation, the program of note-reading practice appears to have been effective only for increasing the RWR of very slow readers. Further investigation under other circumstances is warranted before positive conclusions can be reached.

ABSTRACT

A COMPARATIVE STUDY OF GROUP INSTRUCTION AND SELF-INSTRUCTION USING TWO MUSICAL TASKS: OBOE TIMBRE IDENTIFICATION AND MELODIC SEQUENCE IDENTIFICATION

Jimmy Kay Trenkle, M.M.E.
University of Missouri-Kansas City, 1977

The problem of this study was to determine if group instruction was as effective as self-instruction when AVII models were used.

The purpose of this study was to compare the achievement of third grade students instructed in a self-instructed format and the achievement of third grade students instructed in a group instructed format using AVII model materials on two musical tasks, oboe timbre identification and melodic sequence identification.

A quasi-experimental intact-group pretest-posttest equivalent materials research design was used. A criterion instrument was constructed to measure achievement.

The responses on the criterion measure for achievement by subjects on two musical tasks constituted the primary data. Kind of task, school, age, reading level, and sex were the secondary data.

The first grade self-instructed class had a significant mean gain on oboe achievement when type of instruction was considered. Mean gain on sequence achievement was significantly lower. It appears that a first grade student with a limited vocabulary would rely more upon pictures as a mode of reading. Type of task, reading level, or sex had a minimal effect on the type of instruction. There was no significant difference on sequence achievement for self-instructed, group instructed, and no instruction third grade classes. There was

a significant difference on oboe achievement when reading level and age were considered.

Subject to the limitations and circumstances of this study, it was concluded that there were no significant differences between group instruction and self-instruction.

ABSTRACT

MODALITY, TONALITY AND MUSICA FICTA IN THE SIXTEENTH-CENTURY CHANSON

Rhian Samuel Curtis, Ph.D.
Washington University, 1978

During the sixteenth century, the harmonic idiom of the polyphonic chanson underwent a metamorphosis which can be clearly assessed only if musica ficta practices are understood. The rules which govern these practices and exceptions to these rules are described in detail, albeit haphazardly, by Renaissance theorists. In this study their comments are appraised.

The term musica ficta includes both printed accidentals and those added by the singer in performance: a study of the former helps illuminate the latter. The Mellange de chansons (Paris: Le Roy and Ballard, 1572), a retrospective collection of the polyphonic chanson containing 148 pieces, is an ideal vehicle for the examination of printed musica ficta.

When theoretical commentaries and musical evidence are combined, the constantly changing trends of musica ficta addition are discerned. Accidentals added to conform to theoretical rules generally function tonally, that is, they create chord progressions associated with a tonal idiom. These phenomena have only local implications, however. An early chanson, using accidentals only to comply

with musica ficta rules, may sound inconsistent to the modern listener, since it vacillates between modal and tonal chord progressions. Later chansons indicate a new perception of the role of the accidental. While it may sometimes arise from a rule of musica ficta, it is often added specifically to maintain the tonal idiom heard elsewhere in the chanson.

In the Mellange we occasionally see addition of ficta that conflicts with the style of the chanson itself, when accidentals in early chansons have been added editorially to conform to a later harmonic style. These anomalous accidentals must be removed for a true assessment of the chanson's idiom. We also see some examples of the cautionary sharp (in the chansons of Nicolas de La Grotte). This sharp does not inflect the tone it precedes but functions as a natural sign.

While this study permits us to assess the growing role of the sharp, it also provides a glimpse of the conservative use of the flat in early chansons, warning the modern editor that accidentals must be added with caution, lest they eradicate the elusive modal idiom employed in these compositions.

ABSTRACT

MUSIC AS REINFORCEMENT IN INCREASING SPONTANEOUS SPEECH AMONG AUTISTIC CHILDREN

Darlene Watson, M.M.E.
University of Missouri-Kansas City, 1978

The problem in this study was to determine whether music could be an effective reinforcer for increasing spontaneous speech among autistic children. The purpose was to compare the average frequency of response when using various types of reinforcement: (1) tokens exchanged for a music session led by a music therapist or a music therapy student,

(2) unspendable tokens, or (3) tokens exchanged for a taped music session led by a classroom teacher. Subjects of the experiment were ten students, aged seven through sixteen years, from Sherwood Center for Exceptional Children in Kansas City, Missouri.

The experiment consisted of ten-day training segments for each of the following treatments: Initial Treatment A (tokens exchanged for a music session led by a music therapist or a music therapy student), Treatment B (unspendable tokens), Treatment C (tokens exchanged for a taped music session led by a classroom teacher), and Final Treatment A (repetition of Treatment A). Tokens were awarded each time a subject spontaneously emitted speech towards a peer. A criterion number of tokens was established, based on response of the first day of the experiment, and was increased by one after the subject had met a particular criterion for two consecutive days. Average token number for each treatment phase was compared to assess effectiveness of each type of reinforcement.

When comparing the effectiveness of the various treatments, training using tokens exchanged for a music session led by a music therapist or a music therapy student as reinforcement produced a significantly greater number of responses than either the use of unspendable tokens for reinforcement or the use of tokens exchanged for taped music sessions led by a classroom teacher as reinforcement. The final training, using music led by a music therapist or a music therapy student as reinforcement, produced even more responses than the initial training of the same treatment. Therefore, this final training produced significant improvements over the use of unspendable tokens for reinforcement of the use of taped music sessions led by a classroom teacher as reinforcement. The use of unspendable tokens produced significantly greater responses than the use of taped music sessions led by a classroom teacher, although once again this treatment was less effective than music led by a music therapist or a music

therapy student in either the initial or final treatment. Taped music sessions led by a classroom teacher proved to be the least effective of all treatments. Initial and final treatments using music led by a music therapist or a music therapy student produced significantly greater responses than the taped music sessions led by a classroom teacher. In summary, rating the various treatments from most effective to least effective, final training using music led by a music therapist or a music therapy student as reinforcement (Final Treatment A) received the highest rating. Treatments listed in decreasing order from the highest were initial training using music led by a music therapist or a music therapy student as reinforcement (Initial Treatment A), the use of unspendable tokens as reinforcement (Treatment B), and the use of taped music sessions led by a classroom teacher as reinforcement (Treatment C).

When evaluating the results, an uncontrolled intervening variable must be considered for complete understanding of the study. What began as ten subjects in one self-contained classroom became ten subjects in three different classrooms after the Christmas vacation. Baseline and Initial Treatment A were conducted with all children in one classroom. During the remainder of the study the children were distributed among three separate classrooms. In view of this fact findings must be interpreted with suitable caution. Findings, however, are more appropriate because they so nearly parallel real classroom situations.

It can be concluded that music was an effective reinforcer for increasing spontaneous speech among these autistic children. All treatments, including the one using unspendable tokens as reinforcement, showed significant increases of responses compared to the baseline average. The treatments utilizing music sessions led by a music therapist or a music therapy student showed far greater increases than the other treatments, however. This indicates that musical activities led by a music therapist or music therapy student were effective in increasing spontaneous speech among the children.