Graphic Analyses of the Conducting Techniques for Irregular Meters and Nonmetrical Organizations Found in Selected Twentieth-Century Band Literature.

John Wesley Knight
Louisiana State University and Agricultural & Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_disstheses

Recommended Citation

This Dissertation is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Historical Dissertations and Theses by an authorized administrator of LSU Digital Commons. For more information, please contact gradetd@lsu.edu.
FORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.

2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.

4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.

5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University Microfilms International
300 N. ZEEB ROAD, ANN ARBOR, MI 48106
18 BEDFORD ROW, LONDON WC1R 4EJ, ENGLAND
KNIGHT, JOHN WESLEY

GRAPHIC ANALYSES OF THE CONDUCTING TECHNIQUES FOR IRREGULAR METERS AND NONMETRICAL ORGANIZATIONS FOUND IN SELECTED TWENTIETH-CENTURY BAND LITERATURE

The Louisiana State University and Agricultural and Mechanical Col. PH.D. 1979

University Microfilms International 300 N. Zeeb Road, Ann Arbor, MI 48106 18 Bedford Row, London WC1R 4EZ, England
GRAPHIC ANALYSES OF THE CONDUCTING TECHNIQUES FOR IRREGULAR METERS AND NONMETRICAL ORGANIZATIONS FOUND IN SELECTED TWENTIETH-CENTURY BAND LITERATURE

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in

The School of Music

by

John Wesley Knight
B.M.E., University of Central Arkansas, 1969
M.M.E., Louisiana State University, 1973
December 1979
## CONTENTS

LIST OF ILLUSTRATIONS ............................... iv  
LIST OF TABLES ..................................... viii  
ACKNOWLEDGEMENTS .................................. x  
ABSTRACT ............................................. xii

Chapter

1. INTRODUCTION ....................................... 1
   Statement of the Problem ......................... 3  
   Significance of the Study ....................... 5  
   Delimitations ..................................... 6  
   Definition of Terms ................................ 7  
   Method of Research ................................ 10  
   Organization of the Study ....................... 10

2. SURVEY OF RELATED LITERATURE ................... 13  
   Review of Supportive Evidence ................. 13  
   Review of Selected Literature ................. 17  
   Review of Conducting Textbooks ............... 59

3. ANALYSIS AND EVALUATION OF QUESTIONNAIRES ... 77  
   First Questionnaire: To College Band Directors 78
   Second Questionnaire: To Selected Conductors ... 116  
   Comparison of Responses ......................... 126  
   Summary of Conducting Patterns for Irregular Metric Groupings 132
Chapter

4. GRAPHIC ANALYSES ........................................ 135
   Representative Diagrams of
   Irregular Metric Groupings ................................ 136
   Diagrams of Conducting Patterns
   for Specific Musical Examples
   of Irregular Meters ........................................ 149
   Conducting Solutions for
   Nonmetrical Organizations ................................ 164
   Reference Chart of Diagrams ................................ 174

5. SUMMARY, CONCLUSIONS, AND
   RECOMMENDATIONS ....................................... 186
   Summary .................................................... 186
   Conclusions .................................................. 192
   Recommendations ............................................ 198

APPENDIXES ................................................ 201
   A. TWENTIETH-CENTURY BAND LITERATURE
      INVESTIGATED IN THIS STUDY ............................ 201
   B. QUESTIONNAIRES ....................................... 204
      To College Band Directors ............................... 204
      To Prominent Conductors ................................ 214
   C. CORRESPONDENCE ....................................... 217
      Cover Letter to First Questionnaire .................. 217
      Follow-up Letter ......................................... 218
      Letter to Officers of
      ASBDA, ABA, CBDNA, and NBA ......................... 219
      Cover Letter to Second Questionnaire ............... 220
      Letter to Publishers .................................... 221
   D. RESPONDING INSTITUTIONS .............................. 222
   E. FREE RESPONSES FROM COLLEGE
      BAND DIRECTORS ....................................... 225
   SELECTED BIBLIOGRAPHY ................................ 229
   VITA ......................................................... 238
LIST OF ILLUSTRATIONS

Figure

1. Percy Grainger, Lincolnshire Posy, third movement, "Rufford Park Poachers," measures 6-10, p. 13 . . . . . . . . . 19
2. Andreas Makris, Aegean Festival Overture, measures 198-213, p. 23 . . . . . . . . . 20
3. Fisher Tull, Reflections on Paris, measures 103-107, p. 28 . . . . . . . . . 21
4. Igor Stravinsky, Concerto for Piano and Wind Instruments, first movement, measures 277-293, p. 29 . . . . . . . . . 22
5. Alvin Etler, Concerto for Clarinet, measures 7-10, p. 40 . . . . . . . . . 23
6. George Rochberg, Apocalyptic, measures 367-373, p. 50 . . . . . . . . . 24
7. Paul Creston, Anatolia "Turkish Rhapsody," measures 16-19, p. 8 . . . . . . . 25
8. John Barnes Chance, Blue Lake, measures 167-170, p. 36 . . . . . . . . . 26
10. Robert Jager, Third Suite, first movement, "March," measures 1-4, p. 3 . . . . 27
Illustrations continued

Figure

12. Niel DePonte, Concertino for Marimba, measures 144-152, p. 10 . . . . . . . 28
13. Charles Ives, Scherzo "Over the Pavements," measures 61-65, p. 10 . . . . 29
15. Percy Grainger, Lincolnshire Posy, fifth movement, "Lord Melbourne," measures 37-41, p. 33 . . . . . . . 31
17. Henry Brant, Verticals Ascending measures 132-134, p. 38 . . . . . . . 33
18. Paul Hindemith, Symphony in B flat, second movement, measures 95-97, p. 59 . . . . 34
19. Hindemith, continued, measures 98-101, p. 60 . . . . . . . . . . . 35
20. Cristobal Halffter, Lineas y Puntos, measures 14-28, p. 3 . . . . . . . 36
23. Paul Creston, Anatolia "Turkish Rhapsody," measures 32-34, p. 12 . . . . . . 40
24. Alvin Etler, Concerto for Clarinet, fourth movement, measures 11-19, p. 41 . . . . 41
Illustrations continued

Figure

25. Igor Stravinsky, Concerto for Piano and Wind Instruments, first movement, measures 256-276, p. 28

26. John Barnes Chance, Blue Lake, measures 69-71, p. 18

27. John Barnes Chance, Blue Lake, measures 163-166, p. 35


30. Cristobal Halffter, Lineas y Puntos, measures 1-6, p. 1

31. Cristobal Halffter, Lineas y Puntos, measure 206, divisions 14-20, p. 33

32. Krzysztof Penderecki, Pittsburgh Ouverture, measure 31, p. 11

33. Jose Serebrier, Twelve Plus Twelve, p. 1

34. Jose Serebrier, Twelve Plus Twelve, section E

35. Donald Erb, Stargazing, measure 6, p. 8

36. Karel Husa, Apotheosis of This Earth, first movement, "Apotheosis," measures 99-103, p. 19

37. Karel Husa, Apotheosis of This Earth, first movement, "Apotheosis," measures 40-45, p. 7
Illustrations continued

Figure

38. Karel Husa, *Apotheosis of This Earth*, third movement, "Postscript," measures 36-37, p. 11 ...................... 57


LIST OF TABLES

1. Conducting Textbooks Reviewed in This Study .................. 61
2. Coverage of Irregular Meters and Nonmetrical Organizations in Conducting Textbooks ................. 66
3. Percentage of Textbooks Containing Specific Conducting Diagrams .................. 70
4. Sources of Conducting Diagrams for Asymmetric Meters .................. 71
5. Sources of Conducting Diagrams for Additive Meters .................. 72
6. Sources of Conducting Diagrams for Combined Meters .................. 72
7. Sources of Conducting Diagrams for Polymeters .................. 73
8. Sources of Conducting Diagrams for Variable Meters .................. 73
9. Demographic Information .................. 83
List of Tables continued

10. Undergraduate Conducting Training .................. 85
11. Number of Conducting Faculty ...................... 86
12. Conducting Classes .................................. 87
13. Conducting Requirements for the 
   Baccalaureate Degree in Music Education .......... 89
14. Preferred Undergraduate Conducting 
    Textbooks ........................................... 91
15. Number of Individual Student Conducting 
    Experiences with Performance Groups at 
    the Institution .................................... 93
16. Methods of Student Evaluation ....................... 95
17. Frequency of Performance of Twentieth- 
    Century Composers by College Band 
    Directors ............................................ 96
ACKNOWLEDGEMENTS

The author wishes to express his sincere appreciation to his major advisor, Professor Robert Shambaugh, for his suggestions and guidance throughout all phases of the project. Additional thanks are extended to Professors Paul Abel, Kenneth Klaus, Wallace McKenzie, and James Yestadt for their helpful recommendations and assistance as committee members.

The author is especially grateful to Frederick Fennell, Arnald Gabriel, Donald Hunsberger, W. Francis McBeth, and Alfred Reed for their expertise and explanations concerning the conducting techniques for irregular meters and nonmetrical organizations found in twentieth-century band literature.

The following publishers have graciously permitted quotations from certain of their publications to be mentioned in the body of the study. The cooperation by these notable publishers is hereby acknowledged and deeply
appreciated.

Associated Music Publishers, Inc.
Belwin-Mills Publishing Corporation
Boosey & Hawkes, Inc.
European American Music Distributors Corporation
Galaxy Music Corporation
MCA Music
Peer International Corporation
C. F. Peters Corporation
G. Schirmer, Inc.
Shawnee Press, Inc.
Studio 4 Productions
Theodore Presser Company
Volkwein Bros., Inc.
ABSTRACT

Music educators have expressed concern that the undergraduate training for school band conductors does not develop the conducting techniques needed for the interpretation of contemporary band literature. The compositional techniques in contemporary band literature have extended the musical horizons of the conductor and have brought about a myriad of interpretive problems that need specific solutions.

The purpose of this project was to develop a primary source for learning the necessary techniques for conducting irregular meters and nonmetrical organizations through the traditional method of imitating diagrams.

An investigation of band music published between 1900-1979 revealed copious examples of nonmetrical organizations and the following variations of irregular meters: (1) asymmetric meters, (2) additive meters, (3) combined meters, (4) fractional meters, (5) poly­meters, (6) variable meters, and (7) trans-barline irrational figures.

A subsequent investigation of thirty-seven
conducting textbooks revealed an apparent lack of diagrammed representations concerning irregular meters and nonmetrical organizations. In order to collect data on the stated problem of conducting irregular meters and nonmetrical organizations, two questionnaires were devised. The first questionnaire was sent to sixty-five college band directors whose schools have full NASM accreditation within the Southwestern Division of AWSMC. A return rate of 53.3 percent was achieved with thirty-four responses received. A second questionnaire was sent to noted band conductors recommended by officers of the following band organizations: ASBDA, AABA, CBDNA, and NBA.

Each of the five conductors responding—Frederick Fennell, Arnald Gabriel, Donald Hunsberger, William Francis McBeth, and Alfred Reed—drew the patterns of motion he would use to conduct specific examples of irregular meters and nonmetrical organizations taken from the following compositions:

(1) **Aegean Festival Overture** - Andreas Makris
(2) **Anatolia "Turkish Rhapsody"** - Paul Creston
(3) **Blue Lake** - John Barnes Chance
(4) **Concerto for Clarinet** - Alvin Etler
(5) **Lincolnshire Posy** - Percy Grainger
The following significant information resulted from the replies from the college band directors:

1. Most novice conductors would probably shy away from contemporary band literature containing irregular meters and nonmetrical organizations.

2. A band literature course is not taught at twenty-three (76.6 percent) of the responding institutions.

3. An overwhelmingly majority of directors (97.1 percent) agree that a study treating the specific solutions to conducting problems found in irregular meters and nonmetrical organizations would be of value to band conductors.

4. The majority of respondents (91.2 percent) agree that irregular meters and nonmetrical organizations should be taught in an undergraduate conducting class.

Significant information received from the selected conductors revealed the following conclusions:
(1) The appropriate conducting patterns employed for irregular meters are asymmetrical variants of the basic beat patterns. This interrelationship of the basic pattern to the asymmetrical pattern was exemplified in the reference chart of forty-six diagrams given in chapter 4.

(2) Trans-barline irrational figures can be simplified by rebarring the measures and controlling them with basic beat patterns and/or asymmetrical beat patterns depending on the metrical stress.

(3) Several alternatives were presented for controlling nonmetrical organizations. However, future research is encouraged for school band conductors to successfully conduct compositions written in this idiom.

The primary purpose of this study was to develop graphic analyses of the techniques necessary to conduct specific examples of irregular meters found in contemporary band literature. This objective was realized by the drawing of (1) representative diagrams offered by the college band directors and selected conductors delineating the beat patterns needed for conducting the seventeen irregular metric groupings, (2) representative diagrams used for conducting specific examples of
irregular meters from selected band compositions, (3) diagrams used for conducting examples of nonmetrical music, and (4) a composite reference chart of forty-six diagrams resulting from the study.
CHAPTER 1

INTRODUCTION

A fundamental introduction to the basic techniques of conducting may be acquired by the prospective school band conductor through undergraduate conducting courses, related textbooks, and, perhaps, experiences conducting ensembles. The conducting student often learns the basic beat patterns for the traditional meters having from one to six beats in a measure by imitating the representative diagrams and/or the patterns demonstrated by his individual teacher. Due to the limited time element in most conducting classes, it is understandable and necessary that emphasis must be given to these essential beat patterns. However, many introductory courses neglect the more difficult problems of irregular meters and nonmetrical organizations.

As defined by Lee, irregular meters are those "which deviate from the normal bipartite [duple] and tripartite [triple] metrical schemes."¹ Nonmetrical

organization, as defined by Vinton, is when "there is no perceptible unit of measurement." An investigation of band music published between 1900-1979 revealed copious examples of nonmetrical organizations and the following variations of irregular meters: (1) asymmetric meters, (2) additive meters, (3) combined meters, (4) fractional meters, (5) polymeters, (6) variable meters, and (7) trans-barline irrational figures.

One of the earliest examples of music utilizing examples of irregular meters and nonmetrical organizations is Grainger's Lincolnshire Posy, composed in 1937. The continued use of these innovations in irregular rhythms, according to Fred, prevented all but a few conductors from performing Grainger's compositions. Forty years later these irregular rhythms are found to be characteristic of contemporary music, and many band conductors do not have an extensive knowledge of the patterns needed for their realization.

The consequent demand for additional knowledge on the part of the conductor is one reason why there is

---


concern among musicians for a reevaluation of the content of conducting classes. According to Schuller, techniques of conducting have been radically changed because of new approaches to composition. Serly, conducting student of Scherchen, advocated intensifying the training of conductors.

Until a standard program of physiological training is established comparable to the extensive training given to instrumenta lists and other artists, many conductors will lag behind the high level of competence achieved by the musicians they conduct.

Statement of the Problem

The deficiencies in the band conductor's training in irregular meters and nonmetrical organizations is due, in part, to the limitations of the content within the conducting textbooks. Conclusions of a study by Gordon England verify a lack of written materials concerning the conducting of irregular meters. In his


5Tibor Serly, quoted by Mario F. Oneglia, "The Scherchen-Serly System of Conducting," The Instrumentalist, December 1975, p. 50

analysis of conducting-training programs, Matthews endorsed a study of irregular patterns to be included in conducting classes. After an investigation, however, of thirty-seven conducting textbooks, no diagrammed representation of "how to conduct" the irregular meters and nonmetrical organizations in twentieth-century band literature was found. Further study disclosed that no extensive research has been reported on conducting irregular meters and nonmetrical organizations in instrumental music. Occasional articles were found in current periodicals explaining the interpretation of contemporary band literature, but these articles, however excellent, neither diagrammed nor explained the conducting patterns necessary for the above.

In light of the fact that there are limited materials available in this area of study, it was decided that a research project dealing with the graphic analyses of the conducting techniques for the irregular meters and nonmetrical organizations found in selected twentieth-century band literature would be worthwhile.

---

Significance of the Study

It would appear that additional conducting materials that deal exclusively with the problems of irregular meters and nonmetrical organizations in contemporary band literature are needed. It has been stated that musicians are often deficient in their ability to conduct irregular meters and nonmetrical organizations and, in fact, have occasionally decided not to perform a certain composition because of the limitations in their technique to conduct the rhythmic problems.\(^8\) McBeth has also observed that young conductors often find irregular meters frightening.\(^9\) If the conductor does not acquire the techniques necessary to control contemporary rhythms, he may shy away from works which contain special rhythmic challenges. In regard to this point, Schwadron sees a need for applied materials which will help the student control irregular meters so that "access to contemporary literature is not formidable."\(^{10}\)

---


The primary purpose of this project was to develop graphic analyses of the techniques necessary to conduct specific examples of irregular meters and nonmetrical organizations in contemporary band literature. Results of the study will meet a definite need by providing the student of conducting and the active band director with a primary source for learning the necessary techniques for conducting irregular meters and nonmetrical organizations through the traditional method of imitating diagrams.

Delimitations

The study pertained to the diagrams for conducting patterns related to nonmetrical organizations and the following variations of irregular meters: asymmetric meters, additive meters, combined meters, fractional meters, polymeters, variable meters, and trans-barline irrational figures, as found in the twentieth-century band compositions listed in appendix A. The selected literature was obtained from the libraries of Louisiana State University and Oberlin Conservatory.

The data used to develop the needed graphic analyses were drawn from the following sources: (1) Louisiana State University, (2) Oberlin Conservatory,
In order to collect data on the stated problem of how to conduct the irregular meters and nonmetrical organizations, two questionnaires were devised. The first questionnaire was sent to sixty-five college band directors whose schools have full National Association of Schools of Music accreditation within the Southwestern Division of the Music Educators National Conference. A second questionnaire was sent to noted band conductors recommended by officers of the following band organizations: The American School Band Directors Association, The American Bandmasters Association, The College Band Directors National Association, and the National Band Association.

Definition of Terms

Throughout this research project standard musical terminology will be used. In addition, certain words having specialized meanings when applied to this study will be given the following definitions:

(1) Graphic analyses: the delineation of beat patterns as presented in representative diagrams.

(2) Band: "an instrumental group composed principally of woodwind, brass, and percussion
instruments as distinguished from an orchestra whose nucleus is the string family."\(^\text{11}\)

(3) Asymmetric meters: "measures in which simple and compound meter have been combined."\(^\text{12}\)

(4) Additive meters: "a concept of meter in which the large metric unit is constructed by adding together various groupings of smaller rhythmic/metric units,"\(^\text{13}\) and is recognized by the additive numerator of the meter. A second variation is an "unorthodox arrangement of the components within standard time signatures."\(^\text{14}\)

(5) Combined meters: "two different meters that alternate back and forth in a composition. Usually a note value will be constant and equal between the two."\(^\text{15}\)


\(^{15}\)Fink and Ricci, The Language of Twentieth Century Music, p. 17.
(6) Fractional meters: meters "in which a fraction is added to the numerator—such as 2½/4, and those in which a fraction of a musical entity is the numerator—2/3, for instance."16

(7) Polymeters: the overlay of "two or more different metric schemes in a composition. Usually the different meters will have a common beat, unit, or subdivision."17

(8) Variable meters: meters "characterized by rapid metrical changes with no consistent pattern of repetition."18

(9) Trans-barline irrational figures: "irrational note groups carried over barlines."19

(10) Nonmetrical organization: "an occurrence in which there is no perceptible unit of measurement and no tempo in the traditional sense."20

Other terms are defined as they appear in the body of the paper.


17Fink and Ricci, The Language of Twentieth Century Music, p. 67.

18Ibid., p. 99.

19Read, Modern Rhythmic Notation, p. 63.

Method of Research

A descriptive approach was applied to the investigation of band compositions to identify specific examples of irregular meters and nonmetrical organizations to include in the questionnaires and body of the study.

A critical and statistical investigation was applied to the examination of conducting textbooks to determine the degree of coverage pertaining to diagrammed representation of conducting patterns for irregular meters and nonmetrical organizations.

A statistical and comparative method of interpretation was applied to the responses received from the two questionnaires.

The descriptive and comparative approaches were used in developing and describing the valid conducting patterns and representative diagrams for the specific examples of irregular meters and nonmetrical organizations which were presented in this study.

Organization of the Study

Chapter I contains the Introduction to the Study, consisting of the Statement of the Problem, the Significance of the Problem, Delimitations, Definition of
Terms, and Method of Research.

Chapter 2 presents a Review of Selected Literature which includes the presentation of forty excerpts of irregular meters and nonmetrical organizations from contemporary band compositions, and summary tables of the findings from the investigation of thirty-seven conducting textbooks.

Chapter 3 is an Analysis and Evaluation of Questionnaires. Summary tables and statistical findings were reported concerning the first questionnaire to the college band directors whose schools have full NASM membership in Southwestern Division of MENC. The second section of chapter 3 details the suggestions and explanations received from the five prominent conductors responding to the second questionnaire—Frederick Fennell, Arnald Gabriel, Donald Hunsberger, W. Francis McBeth, and Alfred Reed. A summary of conducting patterns for the seventeen irregular metric groupings represented the consensus of opinion from the college band directors and five prominent conductors as to the appropriate conducting method for each example.

Chapter 4 presents the Graphic Analyses of the Conducting Techniques for Irregular Meters and Nonmetrical Organizations Found in Selected Twentieth-
Century Band Literature. Representative diagrams were drawn for the seventeen examples of irregular metric groupings and for the twenty-five specific examples of irregular meters and nonmetrical organizations from contemporary band compositions which had been included in the questionnaire to the prominent conductors. Detailed explanations and drawings were made to present the suggestions received from the respondents to the questionnaires. A composite Reference Chart of Diagrams was made to serve as a primary guide for the music educator to use in learning the conducting patterns for the irregular meters presented in this study.

Chapter 5 contains the Summary, Conclusions, and Recommendations drawn from this study.
CHAPTER 2

SURVEY OF RELATED LITERATURE

The purpose of this chapter is threefold: (1) to review the supportive evidence advocating an intensification of the undergraduate conducting curriculum in order to meet the demands of contemporary band literature, (2) to present selected excerpts from contemporary band compositions containing specific examples of irregular meters and nonmetrical organizations, and (3) to record the findings from the investigation of conducting textbooks pertaining to the coverage given to the techniques needed for the conducting of irregular meters and nonmetrical organizations.

Review of Supportive Evidence

The importance of a systematic training for conductors is eloquently expressed by Malko.

If a poet, a writer, a composer, painter, actor, teacher, violinist, pianist, must go through a
definite period of schooling to achieve 
mastery in his art, why should the conductor 
be exempted, . . . Never, in any activity, 
whether a craft like making shoes, or an art 
like piano-playing or conducting, can one rely 
solely upon intuition and experience. Always 
and in everything a system of education, a period 
of training, a regime of the developing of 
technic is necessarily required.¹ 

Music educators have expressed concern that the 
training for conductors on the undergraduate level does 
not develop the conducting techniques needed for the 
interpretation of contemporary band literature. The 
results of a recent survey (1977) by the College Band 
Directors National Association (CBDNA) disclosed that 
the teaching of conducting is not extensive nor prac­
tical in most courses situations, and the Association 
recommended intensifying the curriculum.² In an earlier 
study (1975), the CBDNA expressed dissatisfaction with 
the lack of relevancy in the educational preparation of 
conductors. The criticism was made that the newly 
graduated band director "should not have to learn to 

¹Nicolai Malko, The Conductor and His Baton: 
Fundamentals of the Technic of Conducting (Copenhagen: 

²College Band Directors National Association 
Research and Education Committee, "The Education of the 
Band Director: Second Report—'Competencies,'" Journal 
of Band Research of the American Bandmasters Association 
13 (Fall 1977):18.
direct a band by acquiring a job as a band director."^3

The CBDNA committee suggested that teachers in higher education should continue to examine, evaluate, and revise the courses they teach in music education. A suggested guideline to determine the relevancy of the conducting courses is the following question: "Are we really teaching what is needed, or are we teaching what we were taught was needed?"^4

In the opinion of McGinnis, one relevant concern important to music education is that colleges and universities must meet their obligations to the "education, culture and research as embodied in modern composition, . . . because contemporary music will have an impact on musical trends over the next decade."^5

In 1975 the CBDNA committee acknowledged that the scope of instrumental literature is becoming increasingly complex and demands additional skills on the part of the conductor.^6 According to Schuller, the complexities of


^4Ibid.


^6CBDNA 12:18.
the new approaches to composition have radically changed conducting techniques and, therefore, have necessitated a fundamental reevaluation of the art of conducting.

The demands made by the music have multiplied; and the conductor's art, if it is to continue to serve the music, must reflect these increased demands.7

The prevalent use of irregular meters and nonmetrical organizations in contemporary band compositions demands that the band conductor develop the necessary competencies for controlling these rhythmic innovations. However, research has shown that many band directors are reluctant to perform band compositions with difficult rhythmic problems.8 McBeth stated that "Asymmetric meter is somewhat new to band music and seems to frighten the young conductor."9 Henderson further explained the initial attitude he perceived among band directors concerning contemporary band compositions.

Many band directors have been avoiding the issue [whether or not to perform contemporary music] possibly hoping the new music would never gain significant acceptance thus enabling them to remain aloof.10

7 Schuller, in The Conductor's Art, pp. 293-294, 301.
On the contrary, though, the performance of contemporary band music is gaining acceptance. Henderson is of the opinion that an increasing number of directors are now beginning to realize that the band offers an unexcelled medium for the performance of contemporary music. Therefore, as the performance of contemporary band music becomes more frequent, band conductors will seek solutions to the difficulties they may experience with the irregular meters and nonmetrical organizations, thus presenting a subsequent demand that the conducting techniques necessary to control the irregular meters and nonmetrical organizations be included in the undergraduate conducting curriculum. A conclusion by Matthews bears out the thesis that the study of "free rhythm and irregular patterns is essential" to the general conducting curriculum.

Review of Selected Literature

An investigation of band music published between 1900-1979 revealed that irregular meters and nonmetrical organizations are abundant in the contemporary literature as exemplified in the following variations: asymmetric

---

11 Ibid.

meters, additive meters, combined meters, fractional meters, polymeters, variable meters, trans-barline irrational figures, and nonmetrical organizations.

Asymmetric meters

Asymmetric meters have been defined by McBeth as being "measures in which simple meter and compound meter have been combined."\(^{13}\) Concerning the ambiguity with which some conductors approach these meters, McBeth commented:

> After several years now, about everyone has finally figured out that the eighth notes are equal, but the interpretation of the combination of simple and compound still seems to be a bit of a secret.\(^{14}\)

An often quoted example of a 5/8 asymmetric meter occurs in the third movement of Grainger's *Lincolnshire Posy*, "Rufford Park Poachers," measures 6-8 (fig. 1). Although the changing time signature between the 5/8 and 4/8 meters is frequent in this movement, Grainger admonished bandleaders not to be afraid of the metrical fluctuation.

The only players that are likely to balk at these rhythms are seasoned professional bandsmen, who think more of their beer than


\(^{14}\)Ibid.
of their music.15

\[ \frac{\text{\textdollar}}{132} \]

Fig. 1. Percy Grainger, Lincolnshire Posy, third movement, "Rufford Park Poachers," measures 6-10, p. 13. Copyright 1940 by G. Schirmer. Used by permission.

An expanded use of changing asymmetric meters is evident in Makris's Aegean Festival Overture. A 5/8 meter occurs in measures 198, 205, and 207; a 11/8 meter is in measures 200-203; a 7/8 meter is in measure 211, and a 9/8 meter is in measure 213 (fig 2).  

---

An example of a 7/8 asymmetric meter occurs in measure 107 of Tull's Reflections on Paris (fig. 3).
Another example of asymmetric meter can be cited in the first movement of Stravinsky's *Concerto for Piano and Wind Instruments* where a 7/16 meter may be found in measures 279-280, and a 5/8 is located in measure 292 (fig. 4). The original title in French, *Concert pour piano suivi d'orchestre d'harmonie*, used the old word for wind-band.\(^\text{16}\)

---

Fig. 4. Igor Stravinsky, Concerto for Piano and Wind Instruments, first movement, measures 277-293, p. 29. Copyright 1924. Rev. ed. copyright 1960 by Boosey & Hawkes, Inc. Used by permission.

In his Concerto for Clarinet, Etler disposed of the traditional time signatures and used only the
numerators which indicate the eighth-note division of units within each beat (fig. 5). For this reason, measure 7 can be interpreted as being in 5/8, measure 8 as being in 7/8, measure 9 as in 9/8, and measure 10 as being in 3/4.

\[ \text{\( J = 144 \)} \]

![Musical notation](image)

**Fig. 5.** Alvin Etler, *Concerto for Clarinet*, measures 7-10, p. 40. Copyright 1964 by Associated Music Publishers, Inc. Used by permission.

**Additive meters**

Additive meters represent a "concept of meter in which the large metric unit is constructed by adding together various groupings of smaller rhythmic/metric units,"\(^{17}\) and is recognized by the additive numerator of the meter. A second variation is an "unorthodox

---

\(^{17}\)Fink and Ricci, *The Language of Twentieth Century Music*, p. 2.
arrangement of the components within standard time signatures. A.
An example of the second variation of additive meter is the following unorthodox grouping of notes, \( \frac{4}{4} \begin{array}{cccc} & \bullet & \bullet & \bullet & \bullet \\ \end{array} \), which gives an implicit additive meter of \( \frac{3}{8} + \frac{2}{8} + \frac{3}{8} \).

Rochberg's serial composition Apocalyptica demonstrates an additive meter of \( \frac{3}{8} + \frac{5}{8} \) at measure 367 (fig. 6).

\( \text{fig. 6. George Rochberg, Apocalyptica, measures 367-373, p. 50. Copyright 1966 by Theodore Presser Company. Used by permission.} \)

18Read, Modern Rhythmic Notation, p. 88.
19Read, Music Notation, p. 168.
Another additive meter is evident in Creston's *Anatolia "Turkish Rhapsody"* beginning at measure 16 (fig. 7). This composition, which is based on several Turkish folk songs, utilizes a characteristic rhythm, the "zeybek," which can be interpreted as an irregularly subdivided 9/8 meter into $3/4 + 3/8$.20

\[ \text{Moderately fast (} \text{♩= 98} \text{)} \]

Fig. 7. Paul Creston, *Anatolia "Turkish Rhapsody,"

The reiterated rhythmic motif contained in Chance's

20Paul Creston, *Anatolia "Turkish Rhapsody,"
Blue Lake, measures 167-170 (fig. 8), denotes an implicit additive meter which is grouped $3 + 3 + 2$.

An additional selection containing additive meter is the third movement from Musgrave's *Scottish Dance Suite* (fig. 9). The interior grouping of notes in measures 1, 3, 5, and 6 is very similar to the grouping in the previous quotation, $3 + 3 + 2$.

**Combined meters**

Combined meters may be characterized as being "two different meters that alternate back and forth in a composition. Usually a note value will be constant..."
and equal between the two."²¹

\[ \begin{align*}
\text{Fig. 9. Thea Musgrave, Scottish Dance Suite,} \\
\text{third movement, measures 1-7, p. 24. Copyright 1963 by} \\
\text{J. & W. Chester/Edition Wilhelm Hansen. Used by permission, G. Schirmer, Inc.}
\end{align*} \\

Two examples of combined meters may be observed
in the first and second movements of Jager's Third Suite.
The combined meter 4/4(3/4) is found in the first move­
ment, "March" (fig. 10).

\[ \begin{align*}
\text{Alla marcia} \\
\text{Fig. 10. Robert Jager, Third Suite,} \\
\text{first movement, "March," measures 1-4, p. 3.} \\
\text{Copyright 1967 by Volkwein Bros, Inc. Used by permission.}
\end{align*} \\

²¹Fink and Ricci, The Language of Twentieth Century Music, p. 17.
A 3/4(2/4) combined meter is in the second movement, "Waltz" (fig. 11).

Vivace


The combined meter 6/8(3/4) can be studied in DePonte's Concertino for Marimba (fig. 12) and also in Ives's Scherzo "Over the Pavements," (fig. 13).

Fig. 12. Niel DePonte, Concertino for Marimba, measures 144-152, p. 10. Piano reduction. Copyright 1978 by Studio 4 Productions. Used by permission.
Fig. 13. Charles Ives, Scherzo "Over the Pavements," measures 61-65, p. 10. Copyright 1954 by Peer International Corporation. Used by permission.
Fractional meters

Fractional meters are those meters "in which a fraction is added to the numerator—such as $2\frac{1}{4}$; and those in which a fraction of a musical entity is the numerator--$\frac{2}{3}$, for instance."\(^\text{22}\)

A well-known employment of fractional meters in band literature is exemplified in the fifth movement of Grainger's *Lincolnshire Posy*, "Lord Melbourne." Measure 3 of that movement has the fractional meter $2\frac{1}{4}$, and measure 4 has the meter $1\frac{1}{4}$ (fig. 14). The fractional meter $2\frac{1}{4}$ is used again in measures 38 and 40 of the same movement (fig. 15).

\[
\text{Fig. 14. Percy Grainger, Lincolnshire Posy, fifth movement, "Lord Melbourne," measures 2-7, p. 30. Copyright 1940 by G. Schirmer. Used by permission.}
\]

An example of $4\frac{1}{4}$ may be observed in another composition by Grainger, *The Power of Rome and the Christian Heart*, in measure 27 (fig. 16).

\(^\text{22}\) Read, *Music Notation*, p. 175.
Fig. 15. Percy Grainger, *Lincolnshire Posy*, fifth movement, "Lord Melbourne," measures 37-41, p. 33. Copyright 1940 by G. Schirmer. Used by permission.

Polymeters

Polymeters are the overlay of "two or more different metric schemes in a composition. Usually the different meters will have a common beat, unit, or subdivision."\(^{23}\)

A polymeter of \(\frac{3}{4}\) against \(\frac{4}{4}\) is utilized in Brant's *Verticals Ascending*, measures 132-135 (fig. 17). The second movement of *Symphony in B flat* by Hindemith has a unique occurrence of three different metric schemes in measures 97-101 where a \(\frac{3}{2}\) meter is concurrent with \(\frac{12}{8}\) and \(\frac{6}{8}\) meters (figs. 18 and 19). Halffter's work for band and tape, *Lineas y Puntos*, offers interesting examples of polymeters. In measure 20 there occurs an overlay of \(\frac{3}{8}\) against \(\frac{1}{4}\) (fig. 20), and in measures 43-45 a \(\frac{7}{16}\) meter is concurrent with a \(\frac{3}{16}\) meter (fig. 21).

\(^{23}\)Fink and Ricci, *The Language of Twentieth Century Music*, p. 67.
Fig. 17. Henry Brant, *Verticals Ascending*, measures 132-135, p. 38. Copyright 1969 by MCA Music, a division of MCA Inc. Used by permission.
Fig. 18. Paul Hindemith, *Symphony in B flat*, second movement, measures 95-97, p. 59. Copyright 1951 by B. Schott's Sohne, Mainz. Copyright renewed. All rights for the U.S.A. and Mexico controlled exclusively by European American Music Distributors Corporation. Used by permission.
Fig. 19. Hindemith, continued, measures 98-101, p. 60. Used by permission.
Variable meters

"Variable meters are characterized by rapid metrical changes with no consistent pattern of repetition."\(^{24}\) The familiar Lincolnshire Posy demonstrates an excellent example of variable meter from measures 2-16 of the fifth movement (fig. 22). Three variable meters, 5/8 + 2/4, 2/4 + 5/8, and 3/4 + 3/8, are represented within the divisions made by the dotted barlines in Creston's Anatolia "Turkish Rhapsody," measures 32-34 (fig. 23). A variable meter indicated only by the numerator is shown below the clarinet part in Etler's Concerto for Clarinet, measures 11-19 (fig. 24). Stravinsky's Concerto for Piano and Wind Instruments (fig. 25) runs the metrical gamut of twenty-one measures of variable meters with no two similar meters repeated in succession: 2/4, 3/4, 3/8, 3/4, 2/4, 3/8, 3/16, 3/8, 3/16, 3/8, 2/8, 3/16, 3/8, 3/16, 3/8, 3/16, 5/16, 2/8, 3/16, 2/8, and 3/16.

\(^{24}\)Pink and Ricci, The Language of Twentieth Century Music, p. 99.
Fig. 22. Percy Grainger, Lincolnshire Posy, fifth movement, "Lord Melbourne," measures 2-16, p. 30. Copyright 1940 by G. Schirmer. Used by permission.
Fig. 23. Paul Creston, Anatolia "Turkish Rhapsody," measures 32–34, p. 12. Copyright 1968 by Templeton Publishing Co., Inc. Used by permission of Shawnee Press, Inc., sole selling agent.
Fig. 25. Igor Stravinsky, Concerto for Piano and Wind Instruments, first movement, measures 256-276, p. 28. Copyright 1924. Rev. ed. copyright 1960 by Boosey & Hawkes, Inc. Used by permission.
Trans-barline irrational figures

As defined by Read, this term refers to "irrational note groups carried over barlines." This does not describe a meter, per se, but does, however, represent a shifting of meter, which may pose a problem to conductors. For that reason, trans-barline irrational figures are included in this study (figs. 26-28).

Fig. 26. John Barnes Chance, Blue Lake, measures 69-71, p. 18. Copyright 1971 by Boosey & Hawkes, Inc. All rights reserved. Used by permission.

25Read, Modern Rhythmic Notation, p. 63.
Fig. 27. John Barnes Chance, *Blue Lake*, measures 163-166, p. 35. Copyright 1971 by Boosey & Hawkes, Inc. All rights reserved. Used by permission.

Fig. 28. Charles Ives, *Scherzo "Over the Pavements"*, measures 44-47, p. 7. Copyright 1954 by Peer International Corporation. Used by permission.
Nonmetrical organization

"Nonmetrical organization is an occurrence in which there is no perceptible unit of measurement and no tempo in the traditional sense." The composer's desire to break away from tradition has been justified by Varese.

We cannot, even if we would, live much longer by tradition. The world's changing, and we change with it. The more we allow our minds the romantic luxury of treasuring the past in memory, the less able we become to face the future and to determine the new values which can be created in it.

The desire to break away from a perceptible unit of measurement and a tempo indication in the traditional sense has resulted in a new notational symbology which has, at times, become unintelligible to all but a few musicians. According to Read,

Too frequently the obscurities of avant-garde musical thinking are surpassed by the obscurities of its notation—a closed book to all but a small inner circle of initiated professional musicians.

---


Adding to this obscurity is the disagreement among composers concerning a standardization of symbols. Until this notational ambiguity can be resolved, "only confusion and frustration for the performer can result." However, many composers are cognizant of this inconsistent symbology and in an attempt to make their music accessible for performance have been quite articulate in their explanations of avant-garde techniques.

Before a conductor can analyze the conducting techniques necessary for nonmetrical organizations, he must first comprehend the symbols commonly used in the scores. In the following cited quotations, the explanations given by the composers were used whenever possible.

Halffter went into much detail with his instructions for the nonmetrical organizations within Lineas y Puntos. The following drawings represent Halffter's symbology and instructions.

a. 

as fast as possible

b. 

the notes within this sign may be played at any point chosen by the instrumentalist

29 Read, Modern Rhythmic Notation, p. 116.
c. free rhythm within one breath

d. blow into the instrument without producing a tone

e. repeat the phrase as quickly as possible until the sign at which the arrow points

f. tap with the palm of the hand on the mouthpiece of the instrument in any rhythm desired

\begin{table}[h]
\begin{tabular}{|c|c|c|c|c|}
\hline
1 & 2 & 3 & 4 \\
\hline
\end{tabular}
\end{table}

\textbf{h.} move the keys (as many as possible) without blowing into the instrument

\textbf{i.} repeat the phrase until the conductor gives a sign denoting the end of the structure

\textbf{j.} quicken as desired (accelerando)

\textbf{k.} slow down as desired (ritardando)

\textbf{l.} entrances given by the conductor with his left hand, indicating where the instrumentalist begins and stops playing
1. The drawing at the bottom of the score indicates a schematic drawing of the electronic tones. In the drawing only the tempo is precisely indicated.30

The examples of Halffter's symbology can be observed in the following excerpts from *Lineas y Puntos* (figs. 29, 30, and 31).

---

Penderecki provided the following explanations for symbols in *Pittsburgh Ouverture*:

a. \[ \begin{array}{c}
\text{raise by } 1/4 \text{ tone}
\end{array} \]

b. \[ \begin{array}{c}
\text{raise by } 3/4 \text{ tone}
\end{array} \]

c. \[ \begin{array}{c}
\text{highest note of instrument (indeterminate pitch)}
\end{array} \]

d. \[ \begin{array}{c}
\text{lowest note of instrument}
\end{array} \]

e. \[ \begin{array}{c}
\text{molto vibrato}
\end{array} \]

f. \[ \begin{array}{c}
\text{very slow vibrato with } 1/4 \text{ tone difference in frequency}
\end{array} \]

g. \[ \begin{array}{c}
\text{repetition of note (as quickly as possible—staccato)}
\end{array} \]

h. \[ \begin{array}{c}
\text{repeat the notated group of notes}
\end{array} \]

i. \[ \begin{array}{c}
\text{flutter tongue}
\end{array} \]

j. \[ \begin{array}{c}
\text{rub}\textsuperscript{31}
\end{array} \]

Two other symbols in the score of *Pittsburgh Ouverture* (fig. 32) are explained by Read.

\[ \begin{array}{c}
\text{proportionate analog, or time notation is the most prevalent and}
\end{array} \]

\[ \begin{array}{c}
\end{array} \]
influential development in nonmetrical notation today... The explicit premise of the system is simple: to equate durational length with horizontal space.32

Frame notation is a box or rectangle that encloses a group of pitches--free or specified--which are to be played in a random and aperiodic manner. When the note heads are linked together with lines, solid or dotted, the performer is free to begin with any note but must then follow the indicated sequence. The length of the "frame" indicates the relative duration of the note group.33

---

Fig. 32. Krzysztof Penderecki, Pittsburgh Ouverture, measure 31, p. 11. Copyright 1967 by C. F. Peters Corporation. Used by permission.

32 Read, Modern Rhythmic Notation, pp. 116-117.
33 Read, Music Notation, pp. 220-221.
The dotted barline is another common occurrence in nonmetrical music. Its purpose is not to denote measures, but rather to show a passing of chronological time. In Serebrier’s *Twelve Plus Twelve* (fig. 33) the dotted barline constitutes 5 divisions of 12 seconds each.

Conversely, at letter E of Twelve Plus Twelve there are 12 barline divisions of 5 seconds each (fig. 34).

Fig. 34. Jose Serebrier, Twelve Plus Twelve, section E. Copyright 1969 by C. F. Peters Corporation. Used by permission.
A similar example of barline division may be found in Erb's *Stargazing* (fig. 35) where measure 6 has 10 divisions each with 1 second duration.

![Figure 35](image)

Fig. 35. Donald Erb, *Stargazing*, measure 6, p. 8. Copyright 1969 by Merion Music, Inc. Used by permission.

In the performance notes, Husa explained his symbols for quarter-tones in *Apotheosis of This Earth* (fig. 36). Arrows pointing up are for the higher quarter tone, ↑ ♭ ♮, and arrows pointing down indicate the lower quarter tone, ↓ ♭ ♮.  

Husa used the following signs to indicate increasing and decreasing speeds for repeated notes:

The sign, employed in *Apotheosis of This Earth* (fig. 37) refers to a "change of approximately from an eighth note to a tremolo."\(^{35}\)
In regard to the *Sprechstimme* technique, stemming without noteheads, used in the third movement of *Apotheosis of This Earth*, "Postscript" (fig. 38), Husa explained that the "syllables, and later the words, are to be spoken mechanically at first. The sound should be comparable to that of a computer-like or electronic instrument." 36

---

Fig. 38. Karel Husa, *Apotheosis of This Earth*, third movement, "Postscript," measures 36-37, p. 11. Copyright 1971 by Associated Music Publishers, Inc. Used by permission.

One final example from *Apotheosis of This Earth* is the aperiodic movement of sixteenth notes. The passage in measure 174 of the second movement, "Tragedy of Destruction" (fig. 39), is of a 12-15 second duration.

The final example of nonmetrical organization included in this study is from the aforementioned *Lincolnshire Posy*, at measure 9 of the fifth movement.

36 *ibid.*
"Lord Melbourne" (fig. 40). The arrows pointing downward indicate the conductor's downbeat. The ○ signals zero tempo or free time.


(For an exhaustive study of contemporary symbology and their interpretation, consult Notation in New Music, a Critical Guide to Interpretation and Realization, by Erhard Karkoschka. Translated by Ruth Koenig, New York, Praeger, 1972.)

Review of Conducting Textbooks

The third section of this chapter concerns the coverage of irregular meters and nonmetrical organizations within conducting textbooks. A study made by England (1968) disclosed the following deficiency in conducting textbooks:

There is a multiplicity of written texts concerning harmonic analysis, thematic development and formal structure; however, in the area of the study of rhythm, and particularly conducting rhythmic problems, there is a great lack.37

Lee also recognized the need for additional conducting patterns to be presented in textbooks. "New rhythmic concepts have already presented need for new meter patterns which conducting textbooks had little need of twenty-five years ago."38

An investigation of thirty-seven textbooks (table 1) was made to categorically identify the


deficiencies within conducting textbooks as it pertained to the conducting techniques needed for irregular meters and nonmetrical organizations. The selection of textbooks to be reviewed was based upon the following criteria: (1) availability and (2) inclusion of conducting diagrams. The textbooks were obtained from the libraries of Louisiana State University at Baton Rouge and the Oberlin Conservatory of Music, Oberlin, Ohio. Only textbooks containing diagrammed representations of conducting patterns were investigated since this study is concerned with the graphic analyses of conducting patterns necessary for the conducting of irregular meters and nonmetrical organizations. Choral and instrumental textbooks were both reviewed to insure a complete investigation into the depth of coverage given to the graphic analyses of conducting techniques for the innovative rhythmic concepts.
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Vladimir Bakaleinikoff</td>
<td>Elementary Rules of Conducting for Orchestra, Band and Chorus</td>
<td>New York: Boosey Hawkes Belwin, 1938</td>
</tr>
<tr>
<td>3 Paul Van Bodegraven and Harry Robert Wilson</td>
<td>The School Music Conductor</td>
<td>Minneapolis: Schmitt, Hall and McCreary, 1942</td>
</tr>
<tr>
<td>5 Will Earhart</td>
<td>The Eloquent Baton</td>
<td>New York: M. Witmark and Sons, 1931</td>
</tr>
<tr>
<td>8 Karl W. Gehrkens</td>
<td>Essentials in Conducting</td>
<td>Philadelphia: Oliver Ditson, 1919</td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Publisher</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Karl W. Gehrken</td>
<td>Twenty Lessons in Conducting</td>
<td>Boston: Oliver Ditson, 1930</td>
</tr>
<tr>
<td>Lewis Gordon</td>
<td>Choral Director's Complete Handbook</td>
<td>New York: Parker, 1977</td>
</tr>
<tr>
<td>Elizabeth Green and Nicolai Malko</td>
<td>The Conductor and His Score</td>
<td>Englewood Cliffs: Prentice-Hall, 1975</td>
</tr>
<tr>
<td>John Haberlen</td>
<td>Conducting Techniques</td>
<td>Champaign Il.: Mark Foster, 1977</td>
</tr>
<tr>
<td>Archie N. Jones</td>
<td>Techniques in Choral Conducting</td>
<td>New York: Carl Fischer, 1948</td>
</tr>
<tr>
<td>John L. Kinyon</td>
<td>The Teacher on the Podium</td>
<td>New York: Alfred, 1975</td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Publisher</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>James McGray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gordon H. Lamb</td>
<td>Choral Techniques</td>
<td>Dubuque, Iowa: Wm. C. Brown, 1974</td>
</tr>
<tr>
<td>Jack Lee</td>
<td>Modern Conducting Techniques</td>
<td>Winona, Minn.: Hal Leonard, 1972</td>
</tr>
<tr>
<td>Nicolai Malko</td>
<td>The Conductor and His Baton</td>
<td>Copenhagen: Wilhelm Hansen, 1950</td>
</tr>
<tr>
<td>Frank Noyes</td>
<td>Fundamentals of Conducting</td>
<td>Dubuque, Iowa: Wm. C. Brown, 1954</td>
</tr>
<tr>
<td>Adolph W. Otterstein</td>
<td>The Baton in Motion, rev. aug.</td>
<td>New York: Carl Fischer, 1942</td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Publisher</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Paul F. Roe</td>
<td>Choral Music Education</td>
<td>Englewood Cliffs: Prentice-Hall, 1970</td>
</tr>
<tr>
<td>Hermann Scherchen</td>
<td>Handbook of Conducting, trans. by M. D. Calvocoressi</td>
<td>New York: Oxford University Press, 1933</td>
</tr>
<tr>
<td>Royal Stanton</td>
<td>The Dynamic Choral Conductor</td>
<td>Delware Water Gap, Pa.: Shawnee Press, 1971</td>
</tr>
<tr>
<td>Albert Stoessel</td>
<td>The Technic of the Baton</td>
<td>New York: Carl Fischer, 1920</td>
</tr>
</tbody>
</table>
Each textbook was examined for its specific coverage of each type of irregular meter—asymmetric, additive, combined, fractional, polymeters, variable, and trans-barline irrational figures—and nonmetrical organizations. Results of the investigation were recorded according to the following code:

"A"—examples of irregular meters or nonmetrical organizations were given

"B"—explanations were given on how to conduct the examples

"C"—diagrammed representations were provided

"D"—examples were from orchestral literature

"E"—examples were from choral literature

"F"—examples were from band literature

"G"—examples were original exercises composed by the author.

The type of coverage, or lack of it, which was given to the techniques needed for the conducting of irregular meters and nonmetrical organizations within the thirty-seven conducting textbooks which were investigated is presented in table 2.
<table>
<thead>
<tr>
<th>Author</th>
<th>Asymmetric</th>
<th>Additive</th>
<th>Combined</th>
<th>Fraction</th>
<th>Polymer</th>
<th>Variable</th>
<th>Trans-bar</th>
<th>Nonmetric</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bakaleinikoff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Berlioz</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ABCD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Bodegraven</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Boult</td>
<td></td>
<td>ABCG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Earhart</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Finn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Garretson</td>
<td></td>
<td>ABCG</td>
<td></td>
<td></td>
<td>ABCE</td>
<td></td>
<td>ABCE</td>
<td></td>
</tr>
<tr>
<td>8 Gehrken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Gehrken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Gordon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Green</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ADF</td>
</tr>
<tr>
<td>Author</td>
<td>Asymmetric</td>
<td>Additive</td>
<td>Combined</td>
<td>Fraction</td>
<td>Polymer</td>
<td>Variable</td>
<td>Trans-bar</td>
<td>Nonmetric</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>---------</td>
<td>----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>12 Green</td>
<td>ABCD</td>
<td></td>
<td>ABD</td>
<td></td>
<td>ABD</td>
<td>ABD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Grosbain</td>
<td>ABCD</td>
<td>A</td>
<td>ABCD</td>
<td>ABD</td>
<td>ABCD</td>
<td>ABD</td>
<td>ABD</td>
<td>ABD</td>
</tr>
<tr>
<td>14 Haberlen</td>
<td>ABG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ABG</td>
<td></td>
</tr>
<tr>
<td>15 Jones</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Kahn</td>
<td>ABCG</td>
<td></td>
<td>ABCDG</td>
<td>ABD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Kendrie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 Kinyon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Kjelson</td>
<td>ABE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Krone</td>
<td>AB</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Lamb</td>
<td>ABE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ABE</td>
<td></td>
</tr>
<tr>
<td>22 Lee</td>
<td>ABG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Long</td>
<td>ABCG</td>
<td>ABCG</td>
<td>ABG</td>
<td>ABG</td>
<td>ABG</td>
<td>ABG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 McElheran</td>
<td>ABCG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ABCG</td>
<td></td>
</tr>
<tr>
<td>25 Malko</td>
<td>ABCD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ABD</td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td>Asymmetric</td>
<td>Additive</td>
<td>Combined</td>
<td>Fraction</td>
<td>Polymer</td>
<td>Variable</td>
<td>Trans-bar</td>
<td>Nonmetric</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>---------</td>
<td>----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>26 Marple</td>
<td>ABCG</td>
<td></td>
<td>ABE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27 Noyes</td>
<td>ABG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 Otterstein</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 Pottenger</td>
<td>ABG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 Robinson/Winold</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ABE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31 Roe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ABE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 Rudolf</td>
<td>ABCDG</td>
<td>ABD</td>
<td></td>
<td></td>
<td></td>
<td>ABCD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33 Scherchen</td>
<td>ABCD</td>
<td>ABCD</td>
<td>ABCD</td>
<td>ABCD</td>
<td>ABCD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34 Schmid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 Stanton</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 Stoessel</td>
<td>ABCG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ABG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37 Van Hoesen</td>
<td>ABG</td>
<td>ABD</td>
<td>ABD</td>
<td>ABDG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The relatively sparse coverage assigned to the treatment of irregular meters and nonmetrical organizations within thirty-seven conducting textbooks was brought to light by the investigation. Asymmetric meter was given limited coverage in eighteen textbooks. The other meters and nonmetrical organizations were mentioned within the thirty-seven textbooks the following number of times: additive meters, five; combined meters, eight; fractional meters, five; polymeters, nine; variable meters, six; trans-barline irrational figures, once, and nonmetrical organizations, four times.

A specific purpose of the investigation, however, was to determine the diagrammed representation depicting conducting techniques for the irregular meters or nonmetrical organizations. Code "C"--for diagrammed representation--for asymmetric meter was assigned to twelve of the thirty-seven textbooks. Diagrammed representations for the other irregular meters or nonmetrical organizations were found in the following number of textbooks: additive meters, two; combined meters, three; fractional meters and trans-barline irrational figures, none; polymeters, three; variable meters, three, and nonmetrical organizations, one. The
percentage of textbooks containing diagrams for the conducting techniques necessary for irregular meters or nonmetrical organizations is presented in table 3.

**TABLE 3**

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymmetric</td>
<td>12/37</td>
<td>32.34</td>
</tr>
<tr>
<td>Additive</td>
<td>2/37</td>
<td>5.41</td>
</tr>
<tr>
<td>Combined</td>
<td>3/37</td>
<td>8.11</td>
</tr>
<tr>
<td>Fractional</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Polymeters</td>
<td>3/37</td>
<td>8.11</td>
</tr>
<tr>
<td>Variable</td>
<td>3/37</td>
<td>8.11</td>
</tr>
<tr>
<td>Trans-barline</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nonmetrical</td>
<td>1/37</td>
<td>2.70</td>
</tr>
</tbody>
</table>

Textbooks containing the conducting diagrams for irregular meters or nonmetrical organizations have been listed in tables 4-6 to show the specific meter(s) and the page number(s) where the diagram(s) may be found. The coverage attributed to asymmetric meters is presented in table 4.

For the sake of completeness, mention must be made of two additional textbooks dealing with solutions for asymmetric meters. Although they were not listed in table 1 because they lack diagrammed representation, the
two books, nevertheless, offered relevant information to this study. **Effective Performance of Band Music** by W. Francis McBeth, pages 26-28, provides explanations for the interpretation of 5/8 and 7/8 meters. Warwick Braithwaite in *The Conductor's Art* wrote original exercises to aid the conducting student's comprehension of the following asymmetric meters: 5/8 and 7/8 meters on pages 15, 16, 20 and 21, and 9/8 and 10/8 meters on pages 30 and 31.

### TABLE 4

**SOURCES OF CONDUCTING DIAGRAMS FOR ASYMMETRIC METERS**

<table>
<thead>
<tr>
<th>Author</th>
<th>Meter</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boult</td>
<td>5/8, 7/8</td>
<td>14, 15</td>
</tr>
<tr>
<td>Garretson</td>
<td>5/8, 7/8</td>
<td>52, 55</td>
</tr>
<tr>
<td>Green</td>
<td>5/8, 7/8</td>
<td>47, 54</td>
</tr>
<tr>
<td>Grosbanye</td>
<td>5/8, 7/8</td>
<td>71, 74</td>
</tr>
<tr>
<td>Kahn</td>
<td>7/8</td>
<td>99</td>
</tr>
<tr>
<td>Long</td>
<td>5/8</td>
<td>147</td>
</tr>
<tr>
<td>McElheran</td>
<td>5/8, 7/8, 9/8</td>
<td>115, 116</td>
</tr>
<tr>
<td>Malko</td>
<td>5/8, 7/8</td>
<td>60 - 83</td>
</tr>
<tr>
<td>Warple</td>
<td>5/8, 7/8</td>
<td>270, 274</td>
</tr>
<tr>
<td>Rudolf</td>
<td>5/8, 7/8</td>
<td>279, 287</td>
</tr>
<tr>
<td>Scherchen</td>
<td>5/8, 7/8</td>
<td>227, 233</td>
</tr>
<tr>
<td>Stoessel</td>
<td>5/8</td>
<td>77</td>
</tr>
</tbody>
</table>
Textbook coverage of specific additive meters is shown in table 5.

**TABLE 5**

**SOURCES OF CONDUCTING DIAGRAMS FOR ADDITIVE METERS**

<table>
<thead>
<tr>
<th>Author</th>
<th>Meters</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long</td>
<td>8/4 ((3 + 2 + 3))</td>
<td>139</td>
</tr>
<tr>
<td>Scherchen</td>
<td>(1/8 + 2/8 + 2/8)</td>
<td>227</td>
</tr>
<tr>
<td></td>
<td>(2/8 + 2/8 + 1/8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2/8 + 3/8 + 2/8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2/8 + 2/8 + 3/8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4/8 + 3/16 + 7/16)</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>(4/8 + 5/16 + 7/16)</td>
<td></td>
</tr>
</tbody>
</table>

Examples of specific combined meters were represented by conducting diagrams in three sources (table 6).

**TABLE 6**

**SOURCES OF CONDUCTING DIAGRAMS FOR COMBINED METERS**

<table>
<thead>
<tr>
<th>Author</th>
<th>Meters</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grosbayne</td>
<td>(3/4(4/4))</td>
<td>72</td>
</tr>
<tr>
<td>Kahn</td>
<td>(3/4(4/4))</td>
<td>9</td>
</tr>
<tr>
<td>Scherchen</td>
<td>(2/8(3/8))</td>
<td>238</td>
</tr>
</tbody>
</table>
Textbooks references for conducting diagrams for polymeters are given in table 7 and references for variable meters are shown in table 8. There were no diagrammed representations for fractional meters or trans-barline irrational figures within the thirty-seven conducting textbooks.

### TABLE 7

**SOURCES OF CONDUCTING DIAGRAMS FOR POLYMETERS**

<table>
<thead>
<tr>
<th>Author</th>
<th>Meters</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berlioz</td>
<td>3/4: 3/8: 2/4</td>
<td>35</td>
</tr>
<tr>
<td>Grosbayne</td>
<td>6/4: 4/4</td>
<td>127</td>
</tr>
<tr>
<td>Scherchen</td>
<td>2/8: 3/8</td>
<td>233</td>
</tr>
</tbody>
</table>

### TABLE 8

**SOURCES OF CONDUCTING DIAGRAMS FOR VARIABLE METERS**

<table>
<thead>
<tr>
<th>Author</th>
<th>Meters</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garretson</td>
<td>2/4, 6/8, 5/8, 6/8</td>
<td>52</td>
</tr>
<tr>
<td>McElheran</td>
<td>5/8, 7/8</td>
<td>116, 117</td>
</tr>
<tr>
<td>Rudolf</td>
<td>9/8, 5/8, 7/8, 9/8</td>
<td>279, 283</td>
</tr>
</tbody>
</table>
In summary, the investigation verified England's study that there is, indeed, a great lack of written materials concerning the conducting of irregular meters. Since this study concerns itself with the conducting techniques for contemporary band literature, it is important to note that there was a total lack of examples, explanations, or diagrams in reference to band literature (code "F") in the conducting textbooks.

Regarding nonmetrical organizations, the Garretson textbook had limited coverage of nonmetrical music on pages 11-13. The lone example was from choral literature, Alexander Gretchaninov's "Our Father."

Green, in chapter 8 of The Conductor and His Score, cited seven examples of contemporary scores (including one band score—Sydney Hopkinson's Contemporary Primer for Band). However, no diagrammed representations or explanations on how to conduct these nonmetrical organizations were found.

After reviewing the evidence cited in this chapter, one is cognizant of the following four conclusions:

(1) Music educators are concerned that the training for conductors on the undergraduate level does not develop the conducting techniques needed for the
interpretation of contemporary band literature.

(2) Contemporary band literature is replete with irregular meters and nonmetrical organizations as exemplified in the following variations: asymmetric meters, additive meters, combined meters, fractional meters, polymeters, trans-barline irrational figures, and nonmetrical organizations.

(3) There is an apparent lack of conducting textbooks dealing with conducting techniques for irregular meters and nonmetrical organizations not only in band literature, but in choral and orchestral literature as well.

(4) No diagrammed representation of conducting techniques for the irregular meters and nonmetrical organizations in twentieth-century band literature was found.

It would appear that additional conducting materials that deal exclusively with the problems encountered in irregular meters and nonmetrical organizations are needed. Not only have the avant-garde techniques found in contemporary band literature extended the musical horizons of the conductor, but they have also brought about a myriad of interpretive problems that need specific solutions. According to
The compositional devices of Penderecki, Husa and Nelhybel must be completely understood by the conductor before they can become effective. . . . The days when a "band director" can just beat the frames are long gone.39

Foss continues this thought:

. . . We are heading toward a new type of conductor, one who performs a difficult task indeed: the unraveling of new music, of new notations, the teaching of new methods to helpless, though often professional performers.40

39McBeth, Effective Performance of Band Music, p. 44.

CHAPTER 3

ANALYSIS AND EVALUATION OF QUESTIONNAIRES

In light of the fact that no diagrammed representation of "how to conduct" the irregular meters and nonmetrical organizations in twentieth-century band literature was found in the thirty-seven conducting textbooks, it was decided that further research was needed. For this study, it was advantageous to solicit the conducting expertise of colleagues through the use of two questionnaires.

The first questionnaire was sent to college band directors whose schools had full National Association of Schools of Music accreditation within the Southwestern Division of the Music Educators National Conference. This questionnaire was a general inquiry into the conducting techniques and curriculum content in reference to irregular meters and nonmetrical organizations.

The second questionnaire was sent to selected conductors who have expertise in conducting contemporary band literature. In order to be objective in selecting these prominent conductors, recommendations were sought
from the officers of the following honorary band organizations: The American School Band Directors Association (ASBDA), The American Bandmasters Association (ABA), The College Band Directors National Association (CBDNA), and the National Band Association (NBA). The purpose of this questionnaire was to seek direct solutions to the conducting of specific examples of irregular meters and nonmetrical organizations.

First Questionnaire: To College Band Directors

Throughout the 1978 spring term at Louisiana State University, tentative examples of the questionnaire to band directors were scrutinized by numerous fellow graduate students who offered suggestions for improvement. To receive optimum results from the questionnaire, it was further tried and tested on area band conductors for their examination and constructive criticism. After careful study and revision, it was then submitted to Dr. Robert F. Shambaugh (graduate advisor) for final approval. A copy of the questionnaire may be found in appendix B.

Before mailing the questionnaire, the tentative list of "college band directors" had to be qualified by imposing the following delimitations to insure a population sample of viable size:
(1) The geographical region was limited to the seven states that constitute the Southwestern Division of the Music Educator's National Conference: Arkansas, Colorado, Kansas, Missouri, New Mexico, Oklahoma, and Texas.

(2) The institutions had full membership in the National Association of Schools of Music, as listed in the 1978 NASM directory. This delimitation reduced the population sample to seventy-eight institutions.

(3) The Baccalaureate degree in Music Education was offered by each institution under consideration.

(4) Each institution in this study had to identify a band director, code "25," in the Directory of Music Faculties in Colleges and Universities, 1976-1978. Thirteen accredited institutions did not list a band director.

Therefore, the resultant population sample, as defined by the above delimitations, consisted of sixty-five college institutions with full NASM accreditation in the Southwestern Division of the Music Educator's National Conference, which offered a baccalaureate degree in music education, and had a band director listed in the Directory of Music Faculties.

The first mailing of the sixty-five questionnaires was on April 10, 1978. Each band director was asked to
return the questionnaire by April 30, 1978. A self-addressed, stamped, return envelope was enclosed for the convenience of the band directors. For those directors not responding by April 30, a follow-up letter was sent on May 1, which included a copy of the initial questionnaire and a self-addressed, stamped, return envelope. Copies of form letters may be seen in appendix C.

In order to be comprehensive and collect all the information deemed necessary, the questionnaire was by necessity quite lengthy. This was a major concern during the period of revision, but it was decided that the study would not be meaningful unless the investigation was covered in detail. A return rate of 53.5 percent was achieved with 34 responses received.

The purpose of the questionnaire to the college band directors was to gather information from the following six areas:

1. What are the ages, years of teaching experience, and degrees of the respondents?

2. What is the content of the undergraduate conducting curriculum at the institution?

3. Did the college band director receive the preparation and training in his undergraduate conducting classes necessary for the conducting of irregular meters and nonmetrical organizations?
(4) Has the director performed the music of specific modern composers using irregular meters and nonmetrical organizations with bands under his direction.

(5) Could the college band director suggest patterns of motion to conduct specific examples of irregular metric groupings.

(6) Would a study treating the specific solutions to the conducting problems inherent in irregular meters and nonmetrical organizations be of value to band conductors.

In order to retain the confidentiality guaranteed in the cover letter, all responding institutions were tabulated by number rather than by name. Random assignment of numbers was achieved by numbering each questionnaire upon its return. An alphabetical listing of all participating institutions may be found in appendix D.

Evaluation of Data

The first three questions in the questionnaire are concerned with basic demographic information from the respondents as to age, years at present position, total years teaching experience, and degrees received.

As indicated in table 9, there are seven band directors between the ages of 30-35, seven between the ages of 36-41, six between the ages of 42-47, five between the ages of 48-54, six between the ages of 55-60,
and three over 61 years of age. The average age of the respondents is 44.4 years.

The replies as to number of years at present position represent a range of 1-35 years, with the average number of years at current position being 12.4.

Information as to the total number of years teaching experience results in a range of 7-41 years with an average of 21.4 years.

All the respondents have both the bachelors and masters degrees, and twenty-one of the directors (61.8 percent) have credit above the master level. Six persons have earned plus thirty hours, one has plus fifty, another plus sixty, and one has plus eighty-two hours. Four directors have the DMA, one has a DME, four directors have the Ed.D. degree, and three possess a Ph.D. One person listed an additional Master of Music degree and another director has an additional Master of music degree in performance.
## TABLE 9

**DEMOGRAPHIC INFORMATION**

<table>
<thead>
<tr>
<th>Reply</th>
<th>Age</th>
<th>Experience</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Present</td>
<td>Total</td>
</tr>
<tr>
<td>1</td>
<td>30–35</td>
<td>x</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>x</td>
<td>x</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>x</td>
<td>x</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>x</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>x</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>x</td>
<td>x</td>
<td>35</td>
</tr>
<tr>
<td>7</td>
<td>x</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>x</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>x</td>
<td>x</td>
<td>26</td>
</tr>
<tr>
<td>10</td>
<td>x</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>11</td>
<td>x</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>x</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>x</td>
<td>x</td>
<td>25</td>
</tr>
<tr>
<td>14</td>
<td>x</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>x</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>16</td>
<td>x</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>17</td>
<td>x</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
TABLE 9 Continued

<table>
<thead>
<tr>
<th>Reply</th>
<th>Age</th>
<th>Experience</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Present</td>
<td>Total</td>
</tr>
<tr>
<td>18</td>
<td>x</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>x</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>20</td>
<td>x</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>12</td>
<td>36</td>
</tr>
<tr>
<td>23</td>
<td>x</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>24</td>
<td>x</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td>27</td>
<td>31</td>
</tr>
<tr>
<td>27</td>
<td></td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td>28</td>
<td>x</td>
<td>14</td>
<td>27</td>
</tr>
<tr>
<td>29</td>
<td>x</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>30</td>
<td>x</td>
<td>20</td>
<td>31</td>
</tr>
<tr>
<td>31</td>
<td>x</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>32</td>
<td>x</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>33</td>
<td>x</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>34</td>
<td>x</td>
<td>30</td>
<td>35</td>
</tr>
</tbody>
</table>
The information gathered from question four concerning the amount of undergraduate training, semesters (S) or quarters (Q), the band directors had received in conducting is summarized in table 10. Six semesters of training in conducting were taken by two of the directors while most of the respondents, eleven, had two semesters of training. One did not respond.

**TABLE 10**

**UNDERGRADUATE CONDUCTING TRAINING**

<table>
<thead>
<tr>
<th>Number of Directors</th>
<th>Quarters (Q) or Semesters (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1 Q</td>
</tr>
<tr>
<td>2</td>
<td>2 Q</td>
</tr>
<tr>
<td>9</td>
<td>1 S</td>
</tr>
<tr>
<td>11</td>
<td>2 S</td>
</tr>
<tr>
<td>2</td>
<td>3 S</td>
</tr>
<tr>
<td>4</td>
<td>4 S</td>
</tr>
<tr>
<td>2</td>
<td>6 S</td>
</tr>
</tbody>
</table>

Questions five to thirteen are directly concerned with the curriculum content found in the undergraduate conducting course(s) taught at the institutions. Results of the information reveal that twenty-five of the band directors (73.5 percent) also teach conducting at their respective institutions.
The number of conducting faculty is summarized in table 11. Most of the institutions, sixteen, employ two conducting teachers. The range of conducting faculty is from 1-5, with four schools employing only one conducting instructor, and one school having five persons to teach conducting. Attention must be given to a notice from one respondent that the persons are not employed solely for the purpose of teaching conducting, but have other teaching responsibilities as well.

**TABLE 11**

**NUMBER OF CONDUCTING FACULTY**

<table>
<thead>
<tr>
<th>Number of Institutions</th>
<th>Percent of Institutions</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>11.8</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>47.1</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>26.5</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>11.8</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>2.9</td>
<td>5</td>
</tr>
</tbody>
</table>

Information concerning the conducting classes offered by the institutions surveyed reveals, in table 12, that the majority of institutions, twenty-eight (82.4 percent), prefer to offer separate classes for general instrumental and choral conducting. Eight institutions also offer a basic conducting course as a
prerequisite for the general conducting courses, and four colleges teach the combined instrumental/choral course as a prerequisite to the separate courses. Four of the institutions also offer an advanced course as a supplement to the general courses. One college teaches a special course in the theory of conducting.

Of the remaining six institutions, two provide only the combined class of instrumental/choral conducting. One institution teaches the combined class and also a class only in instrumental conducting. One college teaches only choral conducting, and two did not respond.

**TABLE 12**

**CONDUCTING CLASSES**

<table>
<thead>
<tr>
<th>Reply</th>
<th>Combined Inst./Choral</th>
<th>Basic Inst. &amp; Choral</th>
<th>Separate Inst. &amp; Choral</th>
<th>Advanced</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>4</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Reply</td>
<td>Combined Inst./Choral</td>
<td>Basic</td>
<td>Separate Inst. &amp; Choral</td>
<td>Advanced</td>
<td>Other</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------</td>
<td>-------</td>
<td>-------------------------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td>Only Choral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 12 Continued

<table>
<thead>
<tr>
<th>Reply</th>
<th>Combined Inst./Choral</th>
<th>Basic Inst. &amp; Choral</th>
<th>Separate Inst. &amp; Choral</th>
<th>Advanced</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The number of quarters (Q) or semesters (S) of conducting requirements for the baccalaureate degree in music education at the respective institutions is defined in table 13. The majority of schools, twenty (58.8 percent), require two semesters of conducting. Three persons did not respond to this question.

TABLE 13

CONDUCTING REQUIREMENTS FOR THE BACCALAUREATE DEGREE IN MUSIC EDUCATION

<table>
<thead>
<tr>
<th>Number of Institutions</th>
<th>Quarters (Q) or Semesters (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2 Q</td>
</tr>
<tr>
<td>2</td>
<td>6 Q</td>
</tr>
<tr>
<td>6</td>
<td>1 S</td>
</tr>
<tr>
<td>20</td>
<td>2 S</td>
</tr>
<tr>
<td>1</td>
<td>3 S</td>
</tr>
</tbody>
</table>
In response to question nine and ten concerning the textbooks, a majority of instructors, eighteen (52.9 percent), prefer *The Modern Conductor* by Elizabeth Green for the undergraduate conducting text. The percentage and number of replies for each of the eight named textbooks is presented in table 14. Four persons did not respond, and some respondents named more than one textbook. Of the twelve replies referring to the graduate textbook, four instructors prefer to use varied textbooks, three use the Green text, and two use the Rudolf. One instructor uses Stoessel's *Technics*, another provides a bibliography, and one teacher prefers to have the graduate conducting students study scores.

In a prior survey of another geographical region by Matthews (1963), it was disclosed that *The Grammar of Conducting* by Rudolf was the most popular text used in undergraduate conducting classes.¹ One possible explanation for the preference to the Green text (1969), revealed in this study through the questionnaire to band directors, is the extensive coverage it affords to practical applications. It is also interesting to note that the text by Grosybayne, *Technique of Modern Orchestral Conducting* (1973), was not named by any

respondents to this questionnaire, even though it has the greatest amount of coverage of irregular meters of the textbooks reviewed in chapter 2.

TABLE 14
PREFERRED UNDERGRADUATE CONDUCTING TEXTBOOKS

<table>
<thead>
<tr>
<th>Number of Responses</th>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>The Modern Conductor</td>
<td>Elizabeth Green</td>
</tr>
<tr>
<td>5</td>
<td>Grammar of Conducting</td>
<td>Rudolf</td>
</tr>
<tr>
<td>4</td>
<td>Conductor's Workshop</td>
<td>R. Gerry Long</td>
</tr>
<tr>
<td>3</td>
<td>Elements of Conducting</td>
<td>Emil Kahn</td>
</tr>
<tr>
<td>1</td>
<td>School Music Conductor</td>
<td>Paul Bodegraven</td>
</tr>
<tr>
<td>1</td>
<td>Technic of the Baton</td>
<td>Albert Stoessel</td>
</tr>
<tr>
<td>1</td>
<td>Handbook of Conducting</td>
<td>Karl Van Hoesen</td>
</tr>
<tr>
<td>1</td>
<td>Fundamentals of Conducting</td>
<td>Frank Noyes</td>
</tr>
</tbody>
</table>

Information from question eleven, presented in table 15, reveals that all responding institutions provide the undergraduate conducting students with actual experience in conducting performance groups with a range of from 1-8 times. Nineteen institutions give the conducting student opportunities to direct the band; twelve provide conducting experience with the choir, and
three with the orchestra. According to the survey, only two institutions provide conducting experiences with all three principal performance groups—band, choir, and orchestra.

Instead of using the principal groups, nine institutions provide other conducting opportunities for the students. Three colleges have a lab band, and one school has a lab orchestra. Three institutions offer conducting experiences for the students only with the members of the conducting class itself as a choir or instrumental group. Another college provides conducting experiences by having its students work with small ensembles. Another institution provides the actual conducting practice in a conducting clinic, and three did not respond.

Along with the conducting experiences with the principal band or choir, seven institutions provide additional experiences conducting in the methods class and conducting class, and with the jazz band, pep band, or ensembles. The questionnaire also inquired into the conducting experiences with performance groups at area high schools, but this information is not presented in a table because the four respondents indicated that activity only as a general reference to the experiences gained during student teaching.
TABLE 15
NUMBER OF INDIVIDUAL STUDENT CONDUCTING EXPERIENCES WITH PERFORMANCE GROUPS AT THE INSTITUTION

<table>
<thead>
<tr>
<th>Reply</th>
<th>Band</th>
<th>Choir</th>
<th>Orchestra</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>some</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>some</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>1-2</td>
<td>1-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>some</td>
<td></td>
<td></td>
<td>pep band ensembles</td>
</tr>
<tr>
<td>7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td>lab band</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>lab band</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td>lab orchestra</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td></td>
<td></td>
<td>methods class</td>
</tr>
<tr>
<td>15</td>
<td>some</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td></td>
<td></td>
<td>conducting class</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>3</td>
<td></td>
<td></td>
<td>jazz band</td>
</tr>
<tr>
<td>20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
TABLE 15 Continued

<table>
<thead>
<tr>
<th>Reply</th>
<th>Band</th>
<th>Choir</th>
<th>Orchestra</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>2-4</td>
<td>2-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td>lab band</td>
</tr>
<tr>
<td>23</td>
<td>2</td>
<td>2-3</td>
<td></td>
<td>ensembles</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>some</td>
<td>some</td>
<td></td>
<td>some</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td>conducting class</td>
</tr>
<tr>
<td>27</td>
<td>4-5</td>
<td></td>
<td></td>
<td>ensembles</td>
</tr>
<tr>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td>conducting class</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td>conducting clinic</td>
</tr>
<tr>
<td>30</td>
<td>1-2</td>
<td>1-2</td>
<td></td>
<td>ensembles</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td>conducting class</td>
</tr>
<tr>
<td>33</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>2-4</td>
<td>3</td>
<td>2-4</td>
<td></td>
</tr>
</tbody>
</table>

The tabulation of results for question twelve, presented in table 16, shows that verbal evaluation from the instructor is the most popular method among the band directors polled to evaluate undergraduate conducting students. Responses indicate that thirty of the band directors use verbal evaluations. Written evaluations are used by twenty-six of the instructors. Twenty-four of the respondents indicated that verbal evaluations of a fellow classmate by class members are performed
during the semester or quarter. Written evaluations by classmates is the least popular method among the instructors polled with only eleven persons reporting that they use the method. Twenty-two respondents use videotape evaluation. Three persons did not answer question twelve. Five persons suggested that exams, recitals, or podium evaluations can be used to evaluate student conductors.

TABLE 16

METHODS OF STUDENT EVALUATION

<table>
<thead>
<tr>
<th>Number of Responses</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Verbal, from instructor</td>
</tr>
<tr>
<td>24</td>
<td>Verbal, from classmates</td>
</tr>
<tr>
<td>26</td>
<td>Written, from instructor</td>
</tr>
<tr>
<td>11</td>
<td>Written, from classmates</td>
</tr>
<tr>
<td>22</td>
<td>Videotape</td>
</tr>
</tbody>
</table>

Question thirteen asks if a band literature is taught at the institution. Twenty-three respondents (67.6 percent) said that it is not taught; six persons (17.6 percent) indicated that band literature is taught at their respective colleges, and three (8.8 percent) explained that band literature is incorporated within band methods, band techniques, or advanced conducting.
Information gathered from question fourteen is summarized in table 17 where contemporary composers are ranked according to their frequency of performance by the college band directors.

**TABLE 17**

**FREQUENCY OF PERFORMANCE OF TWENTIETH-CENTURY COMPOSERS BY COLLEGE BAND DIRECTORS**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Total</th>
<th>Rank</th>
<th>Name</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>John Barnes Chance</td>
<td>26</td>
<td>11</td>
<td>Walter S. Hartley</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Percy Grainger</td>
<td>24</td>
<td>12</td>
<td>Samuel Adler</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Alfred Reed</td>
<td>24</td>
<td>12</td>
<td>Alan Hovhaness</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>William Schuman</td>
<td>23</td>
<td>13</td>
<td>Ingolf Dahl</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>Vaclav Nelhybel</td>
<td>23</td>
<td>13</td>
<td>Gunther Schuller</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Vittorio Giannini</td>
<td>22</td>
<td>13</td>
<td>Carlos Surinach</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>H. Owen Reed</td>
<td>22</td>
<td>14</td>
<td>Fritz Velke</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Claude T. Smith</td>
<td>22</td>
<td>15</td>
<td>Wallingford Riegger</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Howard Hanson</td>
<td>21</td>
<td>16</td>
<td>Walter Piston</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Robert Jager</td>
<td>21</td>
<td>16</td>
<td>Bernard Rogers</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Vincent Persichetti</td>
<td>21</td>
<td>17</td>
<td>Henry Cowell</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Aaron Copland</td>
<td>20</td>
<td>17</td>
<td>Thom Ritter George</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Charles Ives</td>
<td>20</td>
<td>17</td>
<td>Roy Harris</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Paul Hindemith</td>
<td>19</td>
<td>18</td>
<td>Ulysses Kay</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Karel Husa</td>
<td>19</td>
<td>18</td>
<td>Ernst Krenek</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Roger Nixon</td>
<td>19</td>
<td>19</td>
<td>Edgard Varèse</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Darius Milhaud</td>
<td>17</td>
<td>20</td>
<td>Chou Wen-chung</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Andreas Makris</td>
<td>16</td>
<td>20</td>
<td>Theodore Hoffman</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Igor Stravinsky</td>
<td>16</td>
<td>20</td>
<td>Krzysztof Penderecki</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Robert Washburn</td>
<td>15</td>
<td>20</td>
<td>George Perle</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tibor Serly</td>
<td>0</td>
</tr>
</tbody>
</table>
The purpose of question fifteen to the college band directors was to seek additional titles of compositions which may be relevant to this study. Their suggestions, along with the other twentieth-century band compositions found in the libraries of Louisiana State University and the Oberlin Conservatory of Music, are listed in appendix A.

Question sixteen requested three specific responses from each college band director: (1) To indicate the beat pattern he would use to conduct the seventeen irregular metric groupings characteristic of contemporary band literature; (2) To draw the patterns of motion he would use to conduct each specific example at a tempo of $\frac{1}{4} = \text{ca.} 120$ keeping the eighth notes constant, and (3) To identify the specific irregular metric groupings taught in the undergraduate conducting course(s) at his institution.

Before proceeding to an evaluation of the data gathered from question sixteen, it became apparent from the various explanations given by the directors, that a distinction must be drawn between the definitions used for "basic beat pattern" and "asymmetrical beat pattern." For the purpose of this study, the following explanations will be used:

Basic beat pattern: As defined by Leyden, "a basic beat pattern is the configuration of beat motions
made in delineating only the metric content of a measure of music."\(^2\) When the terms "traditional," "balanced," and "symmetrical" beat patterns were encountered in the responses to question sixteen, they were interpreted as being in reference to the above definition of basic beat pattern.

Asymmetrical beat pattern: As described by Long, an asymmetrical beat pattern is the delineation of unequal beat motions "using beats of different length."\(^3\) When the terms "lopsided," "extended," "shortened," or "unequal" beat patterns were used by the respondents, they were interpreted as meaning asymmetrical beat patterns.

The evaluation of the responses from the college band directors of the Southwestern Division of the Music Educator's National Conference reveals the following interpretations for the conducting of the seventeen irregular metric groupings.


The majority of the college band directors, seventeen, would conduct example 1 in an asymmetrical two-beat pattern using an extended second beat. Thirteen would use a basic two-beat pattern; one director would use a basic five-beat pattern (2+3), and three did not respond. This irregular metric grouping is taught in twenty-six of the responding institutions.

Fifteen of the college band directors would conduct example 2 in an asymmetrical four-beat pattern using an extended first beat. Nine directors would use a basic three-beat pattern; four persons would use a basic four-beat pattern, and six did not respond. This irregular metric grouping is taught in nineteen institutions surveyed.

The majority of the respondents, nineteen, would
conduct example 3 in an asymmetrical four-beat pattern using a shortened fourth beat. Nine band directors would use a basic four-beat pattern; one would use a basic five-beat pattern, and five persons did not respond. Seventeen institutions in the survey teach this irregular metric grouping.

Ex. 4

\[
\begin{array}{c|ccc}
\frac{10}{8} & \cdots & \cdots & \cdots \\
\end{array}
\]

The majority of the college band directors, fifteen, would conduct example 4 in an asymmetrical four-beat pattern using an extended third and fourth beat. Six directors would use an asymmetrical three-beat pattern with an extended first beat; five directors would use a basic three-beat pattern; three persons would use a basic four-beat pattern, and five directors did not respond. This irregular metric grouping is taught in fifteen of the institutions.

Ex. 5

\[
\begin{array}{c|cc}
\frac{3+4}{8} & \cdots \\
\end{array}
\]

The majority of the college band directors, eighteen, would conduct example 5 in an asymmetrical three-beat pattern with an extended first beat. Seven directors would use a basic three-beat pattern; two
directors would use an asymmetrical two-beat pattern with an extended second beat; two directors would use a basic two-beat pattern, and five directors did not respond. This irregular metric grouping is taught in seventeen of the responding institutions.

Ex. 6

\[
\frac{2+3+3+2}{8} \quad | \quad \ \cdot \ \cdot \ \cdot \ \ \cdot \\
\]

Nineteen of the respondents would conduct example 6 in an asymmetrical four-beat pattern using extended second and third beats. Ten directors would use a basic four-beat pattern, and five directors did not respond. Fourteen institutions in the survey teach this irregular metric grouping.

Ex. 7

\[
\frac{4}{4} \quad | \quad . \ \cdot \ \cdot \ \cdot \ \cdot \ \cdot \\
\]

The majority of the college band directors, sixteen, would conduct example 7 in an asymmetrical three-beat pattern using a shortened third beat. Fourteen directors would use a basic three-beat pattern; two directors would use a basic four-beat pattern, and two directors did not respond. This irregular metric grouping is taught in thirteen of the responding institutions.
Sixteen of the college band directors would conduct example 8 in a basic five-beat pattern (3+2). Eleven directors would use an asymmetrical five-beat pattern with an extended fifth beat; four directors would use a basic four-beat pattern; one director would use an asymmetrical four-beat pattern with extended second and fourth beats, and two persons did not respond. Eight of the responding institutions teach this irregular metric grouping.

Thirteen persons would conduct example 9 in an asymmetrical two-beat pattern with an extended second beat. Ten directors would use a basic two-beat pattern; three directors would use an asymmetrical two-beat pattern with an extended first beat; two band directors would use a basic three-beat pattern, and six of the college band directors did not respond to example 9. This metric grouping is taught in seven of the institutions in the survey.
Twenty-two of the directors would conduct example 10 in a basic one beat pattern. Four persons would use a subdivided one-beat pattern; three directors would use a basic three-beat pattern; one director would use a basic two-beat pattern, and four directors did not respond. According to the replies, fourteen institutions teach this irregular metric grouping.

Eight of the college band directors would conduct example 11 in an asymmetrical four-beat pattern with an extended fourth beat. Five directors would use a basic two-beat pattern; three respondents would use an asymmetrical two-beat pattern with an extended second beat; two directors would use an asymmetrical three-beat pattern with a shortened third beat; one director would use an asymmetrical two-beat pattern with an extended first beat; one director would use a basic three-beat pattern, and another director would use a basic five-beat pattern. The majority of directors, thirteen, did
not respond. This irregular metric grouping is taught in three institutions surveyed.

Ex. 12

\[
\begin{array}{c|c}
\frac{2/3}{4} & 3 \\
\end{array}
\]

Twenty-five persons did not respond to example 12, and this irregular metric grouping is not taught in any of the institutions contacted through the questionnaire. Seven respondents would conduct the example with a basic one-beat pattern, and two directors would use a basic two-beat pattern.

Ex. 13

\[
\begin{array}{c|c|c|c}
\frac{4}{8} & \frac{3}{8} & \frac{2}{8} & \frac{1}{8} \\
\end{array}
\]

Eleven directors would conduct example 13 in a basic four-beat pattern. Eight persons would use a basic two-beat pattern; seven directors would use an asymmetrical three-beat pattern with a shortened third beat; two directors would use a basic four-beat pattern in the right hand simultaneously with a basic three-beat pattern in the left hand, and six did not respond. Ten institutions in the survey teach this irregular metric grouping.
Eleven of the respondents would conduct example 14 in a basic three-beat pattern. Eight of the directors would use a basic two-beat pattern; seven would use a basic one-beat pattern; one director would use a basic two-beat pattern in the right hand with a basic three-beat pattern in the left hand, and seven persons did not respond. This irregular metric grouping is taught at five of the institutions in the survey.

Ex. 15

The majority of the college band directors, twenty-one, would conduct example 15 in a basic three-beat pattern. Three directors would use a basic two-beat pattern; one director would use a basic six-beat pattern in the right hand and a basic three-beat pattern in the left hand, and nine directors did not respond. Three responding institutions teach this irregular metric grouping.
Eighteen of the respondents would conduct example 16 in a basic two-beat pattern. Eight directors would use a basic three-beat pattern; seven persons would use a basic one-beat pattern, and one did not respond. Thirteen of the institutions teach this irregular metric grouping.

The majority of college band directors polled, seventeen, would conduct example 17 in an asymmetrical three-beat pattern with a shortened third beat. Ten directors would use a basic three-beat pattern; one director would use a basic four-beat pattern, and six directors did not respond. This irregular metric grouping is taught in sixteen of the responding institutions.

Nine of the college band directors augmented their responses to question sixteen with personal suggestions.
of conducting techniques for specific examples of the seventeen irregular metric groupings. Sources for the following quotations are not identified in order to maintain the anonymity guaranteed in the questionnaire.

"In such cases as in example 1 and example 11, \( \frac{5}{8} \) | \( \frac{4\frac{3}{8}}{8} \), use a pulling of the wrist to get the 'extra' note."

"To understand how to conduct example 1, beat a crisp \( \frac{2}{4} \) on beat one and use a \( \frac{6}{8} 'lilt' \) on beat two \( (\frac{2}{4} + \frac{6}{8}) \). 'Lilt' refers to the feel or style of the triple meter and shows style as well as ictus. This would also apply to example 17, \( \frac{8}{8} \) | \( \frac{3}{8} \). Think the following: 'lilt, lilt, crisp.'"

"For the correct feel, put a drag or extended beat on the long groupings. Think of the baton 'floating' on the long beats."

"To keep the eighth notes constant, you must delay the beats on long notes."

"I do example 9, \( 2\frac{3}{4} \) | \( \frac{3}{8} \), in a lopsided two \( (\checkmark) \), but if we get in trouble, I jump to a quick five."

"Concerning polymeters, conduct the ones that need the most help."
"For example 13, think of the measures being as one and conduct 4/4 and use a left hand accent on the upbeat of two."

Ex. 13 \[
\begin{array}{c|c}
\frac{4}{8} & \begin{array}{c|c|c|c}
\bullet & \bullet & \bullet & \bullet \\
\end{array} \\
\frac{6/8}{} & \begin{array}{c|c|c|c}
\bullet & \bullet & \bullet & \bullet \\
\end{array}
\end{array}
\]

"For example 13, conduct 4/4 in the right hand and a three beat (\(\frac{\cdot}{\cdot}\)) in the left hand."

"For example 14, conduct two in the right hand and three in the left."

Ex. 14 \[
\begin{array}{c|c}
\frac{3}{8} & \begin{array}{c|c|c|c}
\bullet & \bullet & \bullet & \bullet \\
\end{array} \\
\frac{3/4}{} & \begin{array}{c|c|c|c}
\bullet & \bullet & \bullet & \bullet \\
\end{array}
\end{array}
\]

The following five examples were given by the band directors responding to question seventeen which requested the respondent to list other irregular metric groupings with which he is acquainted.

1. \(\frac{6+2}{8}\) \[
\begin{array}{c|c|c|c|c|c|c}
\bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\
\end{array}
\] Conduct in three ( \(\frac{\cdot}{\cdot}\) ). (Similar to example 17.)

2. \(\frac{4}{4}\) \[
\begin{array}{c|c|c|c|c|c|c|c|c}
\bullet & . & . & . & . & . & . & . & . & . \\
\end{array}
\] Conduct in three disregarding the bar line.

3. \(\frac{4+3}{8}\) (7/8) \[
\begin{array}{c|c|c|c|c|c|c|c|c|c|c|c|c|c|c}
\bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet & \bullet \\
\end{array}
\] Conduct in three ( \(\frac{\cdot}{\cdot}\) ).
Questions eighteen, nineteen, and twenty requested free responses from the college band directors. Of the thirty-four college band directors participating in the study, thirty (88.2 percent) responded to questions eighteen and nineteen concerning assets and deficiencies of their undergraduate preparation in conducting while four (11.8 percent) did not respond. Assets the college band directors listed are synthesized as follows:

(a) Opportunity to work with a large ensemble  
(b) Basic conducting techniques were well taught  
(c) Communication  
(d) Observations of master conductors

The comments most consistently mentioned as deficiencies in the band director's undergraduate preparation in conducting are synthesized as follows:

(a) Not enough time spent conducting large ensembles  
(b) Lack of a consistent lab band to conduct  
(c) Conducting records instead of live musicians  
(d) Rehearsal techniques were not taught  
(e) Course was too elementary
Question twenty contained the following statements:

(1) Irregular meters and nonmetrical organizations should/should not be taught in an undergraduate conducting class.

(2) A study treating the specific solutions to irregular and nonmetrical conducting problems would/would not be of value to band conductors.

(3) There should/should not be a reevaluation of the undergraduate conducting curriculum as it relates to irregular meters and nonmetrical organizations.

(4) I did/did not receive the preparation and training in my undergraduate conducting classes necessary for the conducting of irregular meters and nonmetrical organizations.

(5) The conducting of irregular meters and nonmetrical organizations does/does not present a problem for the novice conductor.

Of the thirty-four college band directors, thirty-one respondents (91.2 percent) agree that irregular meters and nonmetrical organizations should be taught in an undergraduate conducting class because the innovations are frequently found in modern music and demand a solution. Two persons (5.9 percent) are of the opinion that
irregular meters and nonmetrical organizations should not be taught in an undergraduate conducting class, and one (2.9 percent) did not respond.

An overwhelming majority, thirty-three persons (97.1 percent), agree that a study treating the specific solutions to the conducting problems in irregular meters and nonmetrical organizations would be of value to band conductors because, as one director explained, "if band directors are going to keep up with modern trends they must be competent with irregular meters and nonmetrical organizations." One person did not respond.

According to twenty-seven of the directors (79.4 percent), "today's compositions dictate a need" for the reevaluation of the undergraduate conducting curriculum as it relates to irregular meters and nonmetrical organizations. Five directors (14.7 percent) believe that these meters should be empirically learned after graduation and only the basic fundamentals should be taught in an undergraduate conducting class. Two persons did not respond.

Twenty-five directors (73.5 percent) said that they did not receive the necessary training for conducting irregular meters and nonmetrical organizations in their undergraduate conducting courses, because, as several
persons explained, bands were playing little or no music containing these meters when they were in undergraduate school. Seven directors (20.6 percent) responded that they did receive some training in asymmetric meters, and one director stated that he did not have an undergraduate conducting course. One person did not respond.

A majority of the directors, thirty (88.2 percent), agree that the conducting of irregular meters and nonmetrical organizations does present a problem to the novice conductor. Three respondents (8.8 percent) said that it does not present a problem, and one did not respond. The following statements are a sampling of the comments from the thirty directors:

(1) Most novice conductors would probably shy away from contemporary band literature containing irregular meters and nonmetrical organizations if possible.

(2) All conducting problems present problems to the novice conductor.

(3) It does for all conductors. Few handle irregular meters well.

Other additional comments concerning the questionnaire were volunteered by eighteen of the college band directors. The responses ranged from single statements to a complete page of helpful observations, recommendations, and encouraging expressions of sincere interest.
Certain conclusions may be drawn from the information received through the questionnaires completed by the thirty-four college band directors whose institutions have full NASM accreditation within the Southwestern Division of the Music Educators National Conference.

(1) Conclusions from the demographic information show that the average age of the respondents is 44.4 years, having been at the present position for 12.4 years, and having an average of 21.4 years of total teaching experience.

(2) All respondents have both the bachelors and masters degrees with twenty-one of the directors (61.8 percent) having credit above the master level.

(3) Twenty-five of the band directors (73.5 percent) teach conducting at their respective institutions. The institutions employ a range of from 1-5 persons to teach conducting. Twenty-eight of the institutions (82.4 percent) offer separate classes for general instrumental and choral conducting, and twenty of the schools (58.8 percent) require two semesters of conducting for the baccalaureate degree in music education. The Modern Conductor by Elizabeth Green is
is used by a majority of the instructors (57.9 percent) for the undergraduate conducting text.

(4) All conducting students at the responding institutions receive actual, but limited, experience in conducting a performance group. Only three of the institutions in the survey have a lab band, and one school has a lab orchestra.

(5) Verbal evaluations from the instructor is the most popular method of evaluating conducting students, indicated in thirty replies.

(6) A band literature course is taught in only six of the represented institutions (17.6 percent). Twenty-three respondents (76.6 percent) said that a band literature course is not taught at their respective schools, and three persons (8.8 percent) explained that band literature is incorporated within band methods, band techniques, or advanced conducting.

(7) From the list of contemporary composers, compositions by John Barnes Chance, Percy Grainger, and Alfred Reed were indicated most frequently as having been performed by the college band directors.

(8) The most frequently named asset of their undergraduate preparation in conducting named by the respondents was the opportunity to work with a large
ensemble. The deficiency of their undergraduate conducting training named most often by the directors was that not enough time was spent conducting that same large ensemble.

(9) The majority of respondents (91.2 percent) are of the opinion that irregular meters and nonmetrical organizations should be taught in the undergraduate conducting class.

(10) An overwhelmingly majority of directors (97.1 percent) agree that a study treating the specific solutions to the conducting problems found in irregular meters and nonmetrical organizations would be of value to band conductors.

(11) A majority of the directors (79.4 percent) favor a reevaluation of the undergraduate conducting curriculum as it relates to irregular meters and nonmetrical organizations.

(12) A majority of the respondents (73.5 percent) admit that they did not receive the necessary training for conducting irregular meters and nonmetrical organizations in their undergraduate conducting courses.

(13) A majority of the band directors (88.2 percent) agree that the conducting of irregular meters and nonmetrical organizations does present a problem to the
novice conductor.

(14) In order to conduct the "extra" note while keeping the eighth notes constant, one must use an asymmetrical beat pattern with an "extended" beat.

(15) In polymeters, the director must conduct the common unit in the dominant line fundamental to the ensemble.

A summary of the additional findings based on the responses made by the college band directors concerning the conducting techniques needed for the irregular metric groupings is incorporated with the findings from the questionnaire to the selected prominent conductors and presented at the end of this chapter.

Second Questionnaire: To Selected Conductors

Of the college band directors surveyed in the first questionnaire, thirty-three (97.1 percent) indicated that a study treating the specific solutions to irregular meters and nonmetrical organizations would be of value to band conductors. Toward this end, a second questionnaire was devised and sent to prominent band conductors who have expertise in contemporary conducting techniques. The results received from the tabulation of the questionnaires to noted authorities will provide a primary source for learning the necessary techniques for conducting
irregular meters and nonmetrical organizations through the traditional method of imitating diagrams.

In order to insure objectivity in selecting the prominent conductors, assistance was sought from the officers of the following prestigious band organizations: ASBDA, ABA, CBDNA, and NBA. Each officer was asked to recommend five conductors who, in his opinion, have expertise in conducting the rhythmic innovations of irregular meters and nonmetrical organizations found in contemporary band literature. (A copy of all form letters used in connection with the second questionnaire may be found in appendix C.)

Twelve of the sixteen band officers (75 percent) responded, submitting a representative sampling of names for twenty different conductors having expertise in conducting contemporary band literature.

After tabulating the number of recommendations, eight conductors were chosen, and the questionnaires to these prominent conductors were mailed on June 13, 1979. A self-addressed, stamped, return envelope was enclosed for the convenience of the selected band conductors. For those conductors not responding by July 1, a follow-up letter was sent on July 2, which again included a copy of the questionnaire and a self-addressed, stamped, return
envelope. A return rate of 62.5 percent was achieved, with five of the eight conductors responding. The five conductors who responded are all leading authorities in music who are noted for their expertise in contemporary band literature.

(1) Frederick Fennell  
Conductor, Miami Wind Ensemble, University of Miami, Coral Gables, Florida

(2) Arnald Gabriel  

(3) Donald Hunsberger  
Conductor, Eastman Wind Ensemble, Eastman School of Music, Rochester, New York

(4) w. Francis McBeth  
Composer/Conductor, Ouachita University, Arkadelphia, Arkansas

(5) Alfred Reed  
Composer/Conductor, University of Miami, Coral Gables, Florida

The purpose of the second questionnaire to the selected conductors was to gather the following information:

(1) To compare the interpretations of the irregular metric groupings made by the college band directors with the interpretations made by the selected conductors.

(2) To develop graphic analyses of the conducting patterns needed for specific examples of irregular meters and nonmetrical organizations.
(3) To provide a primary source for learning the necessary techniques for conducting irregular meters and nonmetrical organizations found in contemporary literature.

(4) To provide exemplars which may be useful in dealing with other contemporary compositions containing irregular meters and nonmetrical organizations.

(5) To provide suggestions of a repertory of contemporary music which may be accessible for performance by school bands.

**Evaluation of Data**

Part I of the questionnaire was identical to question sixteen from the questionnaire sent to the college band directors and requested the selected conductors to make three specific responses: (1) To indicate the beat pattern(s) he would use to conduct the seventeen irregular metric groupings characteristic of contemporary band literature; (2) To draw the patterns of motion he would use to conduct each specific example at a tempo of $J = \text{ca. 120}$ keeping the eighth notes constant, and (3) To identify the irregular metric groupings taught in the undergraduate conducting course(s) at his institution. However, during the evaluation of the responses, it was decided to disregard section 3 concerning the teaching of
the irregular meters because that question is not applicable to all of the five conductors.

In parts II and III of the questionnaire, the selected conductors are asked to draw the patterns of motion to conduct specific musical examples of irregular meters and nonmetrical organizations. Since that section results in actual graphic analysis, the evaluation of the data is reserved for chapter 4.

Evaluation of the responses from Frederick Fennell, Arnald Gabriel, Donald Hunsberger, W. Francis McBeth, and Alfred Reed for part I of the questionnaire reveals the following explanations for the conducting techniques needed for the seventeen irregular metric groupings:

Ex. 1
\[ \frac{5}{6} | \begin{array}{cccc} \bullet & \bullet & \bullet & \bullet \end{array} | \]

All five of the selected conductors would conduct example 1 in an asymmetrical two-beat pattern with an extended second beat.

Ex. 2
\[ \frac{9}{8} | \begin{array}{cccc} \bullet & \bullet & \bullet & \bullet \end{array} | \]

The five conductors would use an asymmetrical four-beat pattern with an extended first beat for example 2.
All of the selected conductors would conduct example 3 in an asymmetrical four-beat pattern with a shortened fourth beat.

Ex. 3
\[
\begin{array}{c|ccccccc}
\frac{11}{8} & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\
\end{array}
\]

Three of the conductors would conduct example 4 in an asymmetrical four-beat pattern with extended third and fourth beats. Two of the selected conductors suggest an asymmetrical three-beat pattern with an extended first beat.

Ex. 4
\[
\begin{array}{c|ccccccc}
\frac{10}{8} & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\
\end{array}
\]

All of the conductors would conduct example 5 in an asymmetrical three-beat pattern using an extended first beat.

Ex. 5
\[
\begin{array}{c|ccccccc}
\frac{3+4}{8} & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\
\end{array}
\]

All of the conductors would conduct example 6 in
an asymmetrical four-beat pattern with extended second and third beats.

Ex. 7

\[
\begin{array}{c}
\frac{4}{4} \\
\end{array}
\]

\[\begin{array}{c}
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\end{array}\]

All the conductors use an asymmetrical three-beat beat pattern with a shortened third beat for example 7.

Ex. 8

\[
\begin{array}{c}
\frac{11}{8} \\
\end{array}
\]

\[\begin{array}{c}
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\end{array}\]

Four of the conductors would conduct example 8 in an asymmetrical five-beat pattern with an extended fifth beat. One conductor would use a subdivided three-beat pattern with an extended third beat.

Ex. 9

\[
\begin{array}{c}
\frac{2\frac{1}{2}}{4} \\
\end{array}
\]

\[\begin{array}{c}
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\end{array}\]

Four of the conductors would conduct example 9 in an asymmetrical two-beat pattern with an extended second beat. One conductor did not respond to this example.

Ex. 10

\[
\begin{array}{c}
\frac{1\frac{1}{2}}{4} \\
\end{array}
\]

\[\begin{array}{c}
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\end{array}\]

The five conductors agree that a basic one-beat pattern is to be used for example 10.
Three of the selected conductors use an asymmetrical two-beat pattern with an extended second beat for example 11. One conductor would use an asymmetrical four-beat pattern with an extended fourth beat, and one conductor did not reply.

Four of the conductors would conduct example 12 in a basic one-beat pattern. One conductor did not respond.

Three of the selected conductors would conduct example 13 in a basic four-beat pattern thinking of the two bars as one measure. One conductor would use an asymmetrical three-beat pattern with a shortened one. One conductor would use a basic two-beat pattern.
Three of the conductors would conduct example 14 in a basic three-beat pattern thinking of the bars as one measure. One conductor would use a basic two-beat pattern (6/8) emphasizing the top line. One conductor did not respond.

Four of the conductors would conduct example 15 in a basic three-beat pattern emphasizing the bottom line of the polyrhythm. One conductor responded, "It would depend on what line is dominant."

Three of the conductors would conduct example 16 in either a basic two-beat pattern or a basic three-beat pattern depending on what line is dominant. One conductor would use a basic two-beat pattern, and the fifth
conductor explained that the pattern would depend on what line is dominant.

Ex. 17

\[
\begin{align*}
\frac{8}{6} & | \quad \cdots \cdots \cdots \\
\end{align*}
\]

All of the selected conductors agree that example 17 would be conducted in an asymmetrical three-beat pattern with a shortened third beat.

One selected conductor gave indepth descriptions for conducting the irregular metric groupings.

The basic principle to keep in mind in all of the cases forming a part of the questionnaire, is simply that whereas prior to the 20th Century, the beat remained the same and the value of the basic eighth notes changed (as between 2/4 and 6/8 played in the same total time of one measure— as, for instance, in Sousa’s El Capitan march, which begins in 6/8 and the trio is in 2/4, where the basic beat does not change, but the value of the eighth notes does), in contemporary music the notes do not change but the beat does—meaning, of course, the eighth notes.

Therefore, in a 7/8 bar, for example, where the eighth notes move too quickly to become the basic beats in the bar (as in a slow 6/8), the only way that this can be beaten to keep the value of the eighth notes equal is either 2+2+3, or 3+2+2, or 2+3+2— in short, an unequal 3 beats in the bar— the exact pattern depending on the main melodic line at the moment.

It is my considered belief that the main melodic line is always the single most important aspect of any piece, regardless of the length of its, or its composer's hair, if I may so put it. And it is this that determines the precise beat that the conductor employs in each measure. If
the melodic line changes its rhythmic groupings from bar to bar, then the conductor's beat pattern changes right along with it, regardless of the accompanying parts. To do otherwise is, in my opinion, to court disaster with the audience which does not see what is going on, only hears it. And so all the fascinating looking notes on the score page that excite so much discussion and controversy among us musicians mean nothing to the ears of the listeners—they only "know" what they hear, and if they don't hear it clearly, then goodbye to the composer, the music, and the performance, not to mention the poor conductor with his geometric gyrations on the podium.\footnote{Alfred Reed, letter enclosed with response to questionnaire, Coral Gables, Florida, June 1979.}

Comparison of Responses

There is unanimous agreement between the majority of band directors and selected conductors concerning example 1, \( \frac{5}{8} \mid \frac{\text{音符}}{\text{音符}} \). The consensus is to conduct this example in an asymmetrical two-beat pattern with an extended second beat. The eighth notes are moving too quickly to become the basic beats in the bar. If a basic five-beat pattern were used, the tempo would be \( \frac{\text{音符}}{\text{音符}} = 240 \). Conducting the example in a basic two-beat pattern allowing both beats to be symmetrical would not permit the eighth notes to remain constant. This would constitute a triplet on the second beat instead of three equal eighth notes. Therefore, the most logical way of conducting example 1 is according to the majority of
respondents' recommendation to use an asymmetrical two-beat pattern with an extended second beat.

Again, there is unanimous agreement between the majority of band directors and selected conductors concerning example 2, $9/8 \begin{array}{l} \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \end{array}$. The consensus is to conduct this example in an asymmetrical four-beat pattern with an extended first beat.

The consensus of opinion from the respondents is to conduct example 3, $11/8 \begin{array}{l} \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \end{array}$, in an asymmetrical four-beat pattern with a shortened fourth beat.

The majority of respondents would conduct example 4, $10/8 \begin{array}{l} \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \end{array}$, in an asymmetrical four-beat pattern with extended third and fourth beats. However, another valid alternative, as expressed by two of the selected conductors and six band directors, would be to conduct this example in an asymmetrical three-beat pattern with an extended first beat.

All of the selected conductors and a majority of the band directors would use an asymmetrical three-beat pattern with an extended first beat for example 5, $\begin{array}{l} \text{\textbullet } \text{\textbullet } \text{\textbullet } \text{\textbullet } \end{array}$.
There is unanimous agreement between the majority of the band directors and all the selected conductors that example 6, $\frac{2+3+3+2}{8}$, should be conducted in an asymmetrical four-beat pattern with extended second and third beats.

All the selected conductors and the majority of band directors suggest an asymmetrical three-beat pattern with a shortened third beat for example 7, $4/4$, Conducting the example in a basic four-beat pattern, allowing all beats to be symmetrical would permit the eighth notes to remain constant. However, since the second pattern would commence on the "and" of two this would tend to make the second weaker rhythmically than the first. Using an asymmetrical three-beat pattern with a shortened third beat, as indicated in the majority of returns, is reasonable.

No clear consensus of opinion resulted from the replies to example 8, $11/8$. Sixteen of the band directors suggested a basic five-beat pattern. Four of the selected conductors and eleven of the band directors use an asymmetrical five-beat pattern with an extended fifth beat. One of the selected
conductors would use an asymmetrical subdivided three-beat pattern with an extended third beat.

There is consensus of opinion among the majority selected conductors and band directors that an asymmetrical two-beat pattern with an extended second beat is sensible for example 9, $2\frac{3}{4}$. All of the selected conductors and the majority of band directors would conduct example 10, $1\frac{3}{4}$, in a basic one-beat pattern.

There is disagreement concerning the interpretation of example 11, $4\frac{3}{8}$. The majority of the college band directors and one of the selected conductors suggest an asymmetrical four-beat pattern with an extended fourth beat. The majority of the selected conductors would use an asymmetrical two-beat pattern with an extended second beat. One of the selected conductors also suggested an alternative pattern—an asymmetrical two-beat pattern with an extended first beat.

Example 12, $\frac{2}{3} \div \frac{3}{4}$, was perhaps the most controversial and unorthodox of the irregular meters presented in the questionnaires. Twenty-five band directors and one of the selected conductors did not respond to this question. Of those responding, seven
band directors and four selected conductors would use a basic one-beat pattern. To conduct the example in a basic one-beat pattern, allowing the beat to be symmetrical, would, however, permit the time-duration for the last third of the triplet $\frac{3}{3}$ to occur which is not needed. A logical way of conducting only two-thirds of a beat would be to use an asymmetrical one-beat pattern that is shortened by one-third.5

Concerning example 13, $\frac{4/6}{3/6}$, the majority of the selected band conductors and band directors would use a basic four-beat pattern thinking of the two measures of $4/6$ as one measure of $4/4$. One of the selected conductors would use a basic two-beat pattern for each measure. Another of the selected conductors would use an asymmetrical three-beat pattern with a shortened third beat and emphasizing the bottom line.

There is agreement among the majority of the selected conductors and band directors to conduct example 14, $\frac{3/8}{3/4}$, in a basic three-beat pattern emphasizing the bottom line.

---

5Read, Music Notation, p. 175.
According to the majority of respondents, example 15, $9/8$, would be conducted in a basic three-beat pattern emphasizing the bottom line of the polyrhythm. One ambidextrous band director would conduct a basic six-beat pattern in the right hand and a basic three in the left hand.

The consensus of opinion among the selected conductors and band directors is to conduct example 16, $6/8$ \( \frac{3}{4} \), in a basic two-beat pattern emphasizing the top line of $6/8$. Two of the selected conductors would use a basic three-beat pattern stressing the bottom $3/4$ meter. It becomes apparent that realization of a legitimate conducting pattern for example 16 depends upon which line is dominant—a basic two-beat pattern emphasizing the $6/8$ meter, or a basic three-beat pattern emphasizing the $3/4$ meter.

All of the selected conductors and the majority of band directors would use an asymmetrical three-beat pattern with a shortened third beat for example 17, $8/8$.

A summary may now be drawn concerning the information received on how to conduct the seventeen
irregular metric groupings according to the information presented by the thirty-four college band directors and the five selected conductors. There was an 88 percent consistency in similarity of suggested beat patterns for the irregular metric groupings as expressed by the majority of the college band directors and the majority of the selected conductors.

**Summary of Conducting Patterns for Irregular Metric Groupings**

\[ \downarrow = 120 \]

<table>
<thead>
<tr>
<th>Meter</th>
<th>Pattern</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex. 1</td>
<td>Asymmetrical 2 (extended 2)</td>
<td>0</td>
</tr>
<tr>
<td>( \frac{5}{8} )</td>
<td>( \text{\textbullet\textbullet\textbullet\textbullet\textbullet} )</td>
<td></td>
</tr>
<tr>
<td>Ex. 2</td>
<td>Asymmetrical 4 (extended 1)</td>
<td>0</td>
</tr>
<tr>
<td>( \frac{9}{8} )</td>
<td>( \text{\textbullet\textbullet\textbullet\textbullet\textbullet\textbullet\textbullet} )</td>
<td></td>
</tr>
<tr>
<td>Ex. 3</td>
<td>Asymmetrical 4 (shortened 4)</td>
<td>0</td>
</tr>
<tr>
<td>( \frac{11}{8} )</td>
<td>( \text{\textbullet\textbullet\textbullet\textbullet\textbullet\textbullet\textbullet\textbullet} )</td>
<td></td>
</tr>
<tr>
<td>Ex. 4</td>
<td>Asymmetrical 4 (extended 1 and 4)</td>
<td>Asymmetrical 3 (extended 1)</td>
</tr>
</tbody>
</table>
\[ \mathbf{\dot{1} = 120} \]

<table>
<thead>
<tr>
<th>Meter</th>
<th>Pattern</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex. 5 [\frac{3+4}{8} ]</td>
<td>Asymmetrical 3 (extended 1)</td>
<td>0</td>
</tr>
<tr>
<td>Ex. 6 [\frac{2+3+3+2}{8} ]</td>
<td>Asymmetrical 4 (extended 2 and 3)</td>
<td>0</td>
</tr>
<tr>
<td>Ex. 7 [\frac{4}{4} ]</td>
<td>Asymmetrical 3 (shortened 3)</td>
<td>Basic 4</td>
</tr>
<tr>
<td>Ex. 8 [\frac{11}{8} ]</td>
<td>Asymmetrical 5 (extended 5)</td>
<td>Asymmetrical subdivided 3 (extended 3)</td>
</tr>
<tr>
<td>Ex. 9 [\frac{2\frac{3}{4}}{4} ]</td>
<td>Asymmetrical 2 (extended 2)</td>
<td>0</td>
</tr>
<tr>
<td>Ex. 10 [\frac{1\frac{1}{4}}{4} ]</td>
<td>Basic 1</td>
<td>0</td>
</tr>
<tr>
<td>Ex. 11 [\frac{4\frac{1}{2}}{8} ]</td>
<td>Asymmetrical 2 (extended 2)</td>
<td>Asymmetrical 2 (extended 1)</td>
</tr>
</tbody>
</table>
\[ \dot{\text{I}} = 120 \]

<table>
<thead>
<tr>
<th>Meter</th>
<th>Pattern</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex. 12</td>
<td>Asymmetrical 1 (shortened 1)</td>
<td>0</td>
</tr>
<tr>
<td>( \frac{2}{3} \times \frac{3}{4} )</td>
<td>( \square )</td>
<td>( \square )</td>
</tr>
</tbody>
</table>

| Ex. 13 | Basic 4 \((4/8 + 4/8 = 1 \text{ measure of } 4/4)\) | Basic 2 \((\text{asymmetrical } 3 \text{ shortened } 3)\) |
| \( \frac{4}{4} \) | \( \square \) | \( \square \) |

| Ex. 14 | Basic 3 \((\text{emphasizing } 3/4)\) | Basic 2 \((3/8 + 3/8 = 1 \text{ measure of } 6/8)\) |
| \( \frac{3}{8} \) | \( \square \) | \( \square \) |

| Ex. 15 | Basic 3 | Basic 6 |
| \( \frac{9}{8} \) | \( \square \) | \( \square \) |

| Ex. 16 | Basic 2 \((\text{emphasizing } 6/8)\) | Basic 3 \((\text{emphasizing } 3/4)\) |
| \( \frac{6}{8} \) | \( \square \) | \( \square \) |

| Ex. 17 | Asymmetrical 3 \((\text{shortened } 3)\) | 0 |
| \( \frac{6}{8} \) | \( \square \) | \( \square \) |
CHAPTER 4

GRAPHIC ANALYSES

The purpose of this chapter is to develop graphic analyses of the techniques necessary to conduct specific examples of irregular meters and nonmetrical organizations found in contemporary band literature. This objective is presented within the following sequence: (1) representative diagrams drawn from the suggestions of the college band directors and selected conductors delineating the beat patterns needed for conducting the seventeen irregular metric groupings; (2) representative diagrams for specific musical examples of irregular meters taken from selected band compositions; (3) explanations and diagrams, if applicable, of the conducting techniques needed for the realizations of nonmetrical organizations based on an analysis of the solutions obtained from the selected conductors, and (4) a reference chart of all diagrams resulting from the study.
Representative Diagrams of Irregular Metric Groupings

In their respective questionnaires, the college band directors and the selected conductors were asked to draw the patterns of motion they would use to conduct the identical set of seventeen examples of irregular metric groupings at a tempo of ca. \( \frac{d}{j} = 120 \), keeping the eighth notes constant. The diagrams drawn by the majority of the college band directors and the majority of the selected conductors had an 88 percent consistency in similarity of beat patterns. The resultant diagrams are offered as viable solutions for conducting the selected examples of irregular metric groupings.

The majority of respondents would conduct example 1 in an asymmetrical two-beat pattern with an extended second beat as shown in the accompanying diagram.

Ex. 1

\[
\begin{array}{c|c}
\frac{5}{8} & \begin{array}{c}
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\cdot \\
\end{array} \\
\end{array}
\]

Diagram
The consensus of the suggestions from respondents is to conduct example 2 in an asymmetrical four-beat pattern with an extended first beat as delineated in the diagram below.

Ex. 2

\[
\begin{array}{c|c}
9/8 & \begin{array}{c}
\text{Diagram}
\end{array}
\end{array}
\]

As outlined in the diagram below, the majority of respondents would conduct example 3 in an asymmetrical four-beat pattern with a shortened fourth beat.

Ex. 3

\[
\begin{array}{c|c}
11/8 & \begin{array}{c}
\text{Diagram}
\end{array}
\end{array}
\]

The majority of respondents would use an asymmetrical four-beat pattern with extended third and fourth
beats for example 4 as exemplified in the diagram. Another helpful suggestion from eight of the respondents would be to conduct this example in an asymmetrical three-beat pattern with an extended first beat as shown in diagram (a).

Ex. 4

\[
\begin{array}{c}
\frac{10}{8} \\
\end{array}
\]

Diagram

Diagram (a)

The consensus of opinion for example 5 is to use an asymmetrical three-beat pattern with an extended first beat as represented in the diagram.

Ex. 5

\[
\begin{array}{c}
\frac{3 + 4}{8} \\
\end{array}
\]

Diagram

The majority of respondents would conduct example 6 in an asymmetrical four-beat pattern with extended
second and third beats as given in the accompanying diagram.

Ex. 6  \[ \frac{2+3+3+2}{8} \]

Diagram

An asymmetrical three-beat pattern with a shortened third beat was used by a majority of respondents for example 7.

Ex. 7  \[ \frac{4}{4} \]

Diagram

The majority of respondents would use an asymmetrical five-beat pattern with an extended fifth beat as delineated in the first diagram for example 8. An alternative method is to use an asymmetrical subdivided three-beat pattern with an extended third beat as
outlined in diagram (a).

Ex. 8  \[ \frac{11}{8} \]

For example 9, the consensus of opinion is to use an asymmetrical two-beat pattern with an extended second beat as presented previously in the diagram for example 1.

Ex. 9  \[ \frac{2\frac{3}{4}}{4} \]

A basic one-beat pattern as exemplified in the diagram on the following page would be used to conduct example 10.
The majority of the respondents would use an asymmetrical two-beat pattern with an extended second beat as subdivided in the first diagram for example 11. One selected conductor suggested an asymmetrical two-beat pattern with an extended first beat as subdivided in diagram (a).

A basic one beat pattern would be appropriate for example 12. However, an alternative consideration is an asymmetrical one-beat pattern that is shortened by
one-third as delineated in diagram (a).

A logical way of conducting example 13 would be to use a basic four-beat pattern, thinking of the two measures of 4/8 and one measure of 4/4, as shown in the first diagram. One selected conductor suggested a basic two-beat pattern for each measure as presented in diagram (a). Another conductor used an asymmetrical three-beat pattern with a shortened third beat which is identical to the pattern used for example 7 and is represented in diagram (b).
The majority of respondents would conduct example 14 with a basic three-beat pattern emphasizing the bottom line of the polymeter. Another possibility, shown in diagram (a), is to use a basic two-beat pattern thinking of the two measures as one measure of 6/8.

\[ \begin{array}{c}
\frac{3}{8} \\
\frac{3}{4}
\end{array} \]

\[
\text{Diagram}
\]

Ex. 14

The majority of respondents would conduct example 15 in a basic three-beat pattern emphasizing the 9/8 meter. An alternative method in diagram (a) is a basic six-beat pattern emphasizing the top line of dotted eighth notes.

\[ \begin{array}{c}
\frac{9}{8} \\
\end{array} \]

\[
\text{Diagram}
\]

Ex. 15
Conducting preference for example 16 would be a basic two-beat pattern emphasizing the top line of the 6/8 meter. A basic three-beat pattern emphasizing the bottom 3/4 meter, as presented in diagram (a), is an alternative method.

The consensus of opinion for example 17 is to use an asymmetrical three-beat pattern with a shortened third beat.
Additional information concerning the conducting of the irregular metric groupings was volunteered by two conductors. A helpful suggestion from Alfred Reed, in addition to his advice which was presented in chapter 3, is to think of the majority of the irregular metric groupings as being additive meters and using the necessary conducting pattern from that conclusion.

(1) $\frac{5}{8}$

(2) $\frac{9}{8}$

(3) $\frac{11}{8}$

(4) $\frac{10}{8}$

(5) $\frac{3+4}{8}$

(6) $\frac{4}{4}$

(7) $\frac{11}{8}$

(8) $\frac{8}{8}$

(9) $\frac{6}{8}$

\[ \text{see "Okay by me in America" from West Side Story} \]

\[ \text{Alfred Reed, response to questionnaire} \]
W. Francis McBeth gave the following diagrams and explanation for conducting frames:

There are only four frames that are used by most professional conductors—all the rest are combinations of the four or partial and full subdivisions of the four.\(^2\)

(1) one frame

(2) two frame

(3) three frame

(4) four frame

Another helpful visual aid suggested by McBeth is a horizontal line drawn over the irregular groupings to clarify the specific beat patterns one might use to facilitate the rhythmic complexities. McBeth explained this method with the following definitions:

(1) \(\uparrow\) = beat of three eighth notes (long)

(2) \(\downarrow\) = beat of two eighth notes (short)

---

\(^2\) W. Francis McBeth, explanation inserted with the completed questionnaire, Arkadelphia, Arkansas, June 1979.
The following three examples exemplify the use of the graphic analysis suggested by McBeth:

```
5/8 | ------------ | 9/8 | °°°°°° | 2+3+3+2 | °°°°°° \\
```

A similar graphic analysis was suggested by several college band directors; however, a vertical line was drawn over the irregular metric groupings instead of the horizontal line used by McBeth.

```
5/8 | °°°°°° | 2+3+2 | °°°°°° | 3+2 | °°°°°° \\
```

Gardner Read stated that Olivier Messiaen was one of the first composers to employ "graphics" as a method to help the performer solve the rhythmic innovations in his compositions. The following graphics were placed over the bar lines to clarify the intricate subdivisions found in Messiaen's compositions:

| or | = 1 beat |
| or | = 2 beats |
| or | = 3 beats |
| = 4 beats |

Read offered the following examples using the
Two other relevant suggestions concerning the interpretation of specific asymmetric, fractional, and additive meters were drawn from the comments contributed by the selected conductors. (1) To understand the asymmetrical beat patterns necessary to conduct certain irregular meters, it may be helpful to convert the fractional meter to a familiar asymmetric meter, or, conversely, relate the asymmetric meter to a fractional meter which implies the extended beat pattern required. The following equations show the relationship between asymmetric and fractional meters:

\[
\begin{align*}
2\frac{1}{2}/4 & = 5/8; \\
1\frac{1}{2}/4 & = 3/8; \\
11/8 & = 5\frac{1}{2}/4; \\
7/8 & = 3\frac{1}{2}/4
\end{align*}
\]

(2) To ascertain the beat patterns needed to conduct the additive meters, total the numerator and divide by two. For example, \(\frac{2+3+2}{8} = \frac{7+2}{8} = \frac{3\frac{1}{2}}{4}\), an asymmetrical three-beat pattern with an extended second beat.

---

\(^3\)Gardner Read, *Music Notation*, p. 178.
Diagrams of Conducting Patterns for Specific Musical Examples of Irregular Meters

Each of the compositions cited in chapter 2 was examined for the particular emphasis it gave to the parameters of asymmetric meters, additive meters, combined meters, fractional meters, polymeters, variable meters, and trans-barline irrational figures. Twenty-five representative musical examples of irregular meters were used from the following eight band compositions and constituted part two of the questionnaire to the selected conductors.

1. Aegean Festival Overture - Andreas Makris
2. Anatolia "Turkish Rhapsody" - Paul Creston
3. Blue Lake - John Barnes Chance
4. Concerto for Clarinet - Alvin Etler
5. Lincolnshire Posy - Percy Grainger
6. Reflections on Paris - Fisher Tull
7. Scherzo "Over the Pavements" - Charles Ives
8. Symphony in B flat - Paul Hindemith

The conductors were requested to draw the patterns of motion they would use to conduct specific measures from the eight band compositions. The resultant diagrams are offered as viable solutions on conducting specific examples of irregular meters in contemporary band literature.
All five of the selected conductors would direct measure 198 of *Aegean Festival Overture* with an asymmetrical two-beat pattern using an extended second beat as shown in the accompanying diagram of example 18.

Ex. 18

\[
\begin{align*}
\text{J} &= 72 \\
\text{Measure 198}
\end{align*}
\]

Diagram

Four of the selected conductors would direct measure 200 of *Aegean Festival Overture* with an asymmetrical five-beat pattern using an extended fifth beat as delineated in the first diagram of example 19. One conductor would use an asymmetrical subdivided three-beat pattern with an extended third beat as
represented in diagram (a).

Ex. 19

\[ \frac{9}{11} \]

\[ \frac{7}{11} \]

Measure 200

All of the selected conductors would direct measure 205 of *Aegean Festival Overture*, example 20, in an asymmetrical two-beat pattern with an extended first beat.

Ex. 20

\[ \frac{9}{11} \]

\[ \frac{7}{11} \]

\[ \frac{7}{11} \]

\[ \frac{7}{11} \]

\[ \frac{7}{11} \]

\[ \frac{7}{11} \]
All of the selected conductors would direct measure 210 of *Aegean Festival Overture* in an asymmetrical three-beat pattern with an extended one as presented in example 21.

Ex. 21

\[
= 72
\]

Measure 210

All the respondents agreed that an asymmetrical four-beat pattern with an extended second beat would be used for measure 212 of *Aegean Festival Overture* as presented in example 22 on the following page.
All the respondents would direct measure 32 of *Anatolia "Turkish Rhapsody"* in an asymmetrical four-beat pattern with an extended second beat as presented in the first diagram for example 23 on the following page. The selected conductors would direct measure 33 of the composition in an asymmetrical four-beat pattern with an extended third beat, as delineated in the second diagram, and would use an asymmetrical four-beat pattern with an extended fourth beat for measure 34 of example 23.
The five selected conductors gave varied solutions and interesting explanations for the trans-barline irrational figures of Blue Lake, example 24, presented on the following page. Two of the selected conductors would direct measures 69, 70, and 71 of the example in a basic four-beat pattern as represented in the first series of diagrams. Another suggestion from one respondent is to interpret the three measures as $\frac{2+3+3}{8}$ and $9/8$, thereby using a basic two-beat pattern in measure 69, an asymmetrical three-beat pattern with extended second and third beats in measure 70, and a
basic three-beat pattern resting on the third beat for measure 71 as represented in the second series of diagrams for example 24.

Ex. 24

\[ \begin{align*}
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\cdot & \quad \cdot \\
\end{align*} \]

Another of the conductors would completely rebar the three measures into partial 12/8, full 12/8, and
6/8, as illustrated in example 25. This conductor would direct the three measures of Blue Lake in this example with a partial four-beat pattern for the first rebarred measure, a basic four-beat pattern for the second rebarred measure, and a basic two-beat pattern for the third rebarred measure.

Ex. 25

\[
\begin{array}{ccc}
\text{Fls} & \text{picc} & \text{obs} \\
\text{Diagram} & \text{Diagram} & \text{Diagram}
\end{array}
\]

Donald Hunsberger gave the following explanation for his interpretation of the trans-barline examples:

While it might be easiest to do the \( \frac{10}{12} \) for each varying measure (when the ensemble has similar divisions) I feel that the standard four-beat pattern over all
would probably be most satisfactory. However, this throws the weight of subdivision upon the performer (which is one reason many bands do not perform the work—the major reason emanating from the podium!)

With the work in front of me I think that the example you chose would probably be [as shown in the accompanying diagrams for example 26] ... due to the allargando and the necessity to provide subdivision if necessary.

Ex. 26

\[ \frac{1}{4} = 120 \]

Measure 69 Measure 70 Measure 71

---

All five of the selected conductors would direct measure 7 of the fourth movement of Concerto for Clarinet, example 27, in an asymmetrical two-beat

---

4Donald Hunsberger, explanation with the completed questionnaire, Rochester, New York, July 1979.
pattern with an extended first beat. The five conductors agreed that an asymmetrical three and four-beat pattern with extended third beats would be used for measures 8 and 9 respectively. Two alternatives were suggested for measure 10—a basic three-beat pattern, and a basic two-beat pattern as shown in diagram (a).

Ex. 27

\[ \text{\( \text{\( \frac{1}{4} \)} = 144 \) \]}

<table>
<thead>
<tr>
<th>Measure 7</th>
<th>Measure 8</th>
<th>Measure 9</th>
<th>Measure 10</th>
</tr>
</thead>
</table>

Diagram | Diagram | Diagram | Diagram |

Diagram (a)
All of the selected conductors agreed that the upbeat of a basic one-beat pattern would be used to direct measure 2 of the fifth movement of Lincolnshire Posy, "Lord Melbourne." An asymmetrical two-beat pattern with an extended second beat would be used for measure 3, and measure 4 of "Lord Melbourne" would be directed in a basic one-beat pattern as presented in the accompanying diagrams for example 28.

Ex. 28

\[
\begin{align*}
\text{%20 = 100} \\
\text{Measure 2} & \quad \text{Measure 3} & \quad \text{Measure 4} \\
\end{align*}
\]

Diagram Diagram Diagram

\[\uparrow +\] \[\uparrow +\] \[
\]

Three of the selected conductors would direct measure 7 of "Lord Melbourne" in a basic three-beat pattern, while the other two conductors suggested a subdivided one-beat pattern presented in diagram (a) for example 29 on the following page.
Three of the selected conductors would direct measure 8 of "Lord Melbourne" in a basic one-beat pattern. Two of the selected conductors would dictate two beats within a basic one-beat pattern as illustrated in diagram (a) for example 30.
All five of the selected conductors would direct measure 107 of *Reflections on Paris* with an asymmetrical three-beat pattern with an extended third beat as represented in the accompanying diagram for example 31.

**Ex. 31**

Four of the selected conductors would direct measure 63 of *Scherzo*, "Over the Pavements" in a basic three-beat pattern as represented in the diagram for example 32 on the following page. Hunsberger explained the reasoning for this choice of pattern: "The majority of measures are in basic $3/4$. Piccolo and clarinet can
establish basic measures in duple feel and develop their 'overlay' within perimeter of the bar. One respondent would use a basic two-beat pattern as shown in diagram (a). All of the respondents chose a basic two-beat pattern (6/8) for measure 64 of example 32.

Ex. 32
Allegro

Measure 63

Measure 64

\[ \begin{align*}
\text{Picc} & : \\
\text{Cl} & : \\
\text{Bn} & : \\
\text{Tpt} & : \\
\text{Tbns} & : \\
\end{align*} \]

Diagram

Diagram (a)

Diagram

5 Hunsberger, response to questionnaire.
To direct measure 97 in the second movement of Symphony in B flat, two of the selected conductors would employ a basic six-beat pattern (divided into 2 + 4) as presented in the first diagram for example 33. Another respondent suggested a basic six-beat pattern (divided 4 + 2) drawn in diagram (a). A third solution named by one conductor is to use a subdivided three-beat pattern as exemplified in diagram (b). One person did not respond.

Ex. 33

\[ \text{Ex. 33} \]
\[ d_1 = 112 \]
\[ d_2 = 56 \]

Measure 97

\[ \text{Diagram} \]

\[ \text{Diagram (a)} \]

\[ \text{Diagram (b)} \]
Conducting Solutions for Nonmetrical Organizations

In part three of the questionnaire, the selected conductors were requested to present solutions to five representative examples of nonmetrical organizations using the following criteria: (1) What conducting pattern(s) would you use to control the juxtaposition of the contrasting rhythms? (2) How would you control/rehearse the improvised material? (3) Other comments concerning the conducting solutions to the complexities inherent in the example.

The five representative examples for part three of the questionnaire were taken from four selected compositions cited in chapter 2:

(1) Lincolnshire Posy, "Lord Melbourne" - Percy Grainger
(2) Pittsburgh Ouverture - Krzysztof Penderecki
(3) Stargazing - Donald Erb
(4) Lineas y Puntos - Cristobal Halffter

Two of the selected conductors would direct the free time section of "Lord Melbourne" from Lincolnshire Posy with ten symmetrical down beats as indicated in the first diagram for example 34 on the following page. The other three selected conductors would use three symmetrical down beats for the first three quarter notes:
an elongated down beat would be used for the fourth beat with a quick rebound for the eighth and quarter combination; the fifth beat would revert back to a symmetrical downbeat; the quarter note triplet would be conducted in a basic three-beat pattern, and the half note would be directed in a basic two-beat pattern. This pattern of beats is represented in diagram (a) for example 34.

Ex. 34

Grainger gave an explanation of the free time passage in the score notes to "Lord Melbourne."

In the passages marked "Free Time" the bandleader should slightly vary his beat lengths with that rhythmic elasticity so
characteristic of many English folksingers—and especially characteristic of George Wray, the singer of this song. Thus the opening phrase may be taken

or equally well as follows

or in any other suitable arrangement of slightly varying beat-lengths. The bandleader should give free rein to his rhythmic fancy, just as folksingers do. Each note with an arrow above it may be beaten with a down beat. Regular beat-lengths and conventional beat-gestures are taken up wherever there are bar-lines and time-signatures.

The consensus of the two responding conductors regarding measure 31 of Pittsburgh Ouverture is to give two down beats per measure with time estimates so that the performers can anticipate, to a degree, the amount of each aleatoric episode. The diagram for example 35 is shown on the following page.

In his analysis of the performance problems in the Pittsburgh Ouverture, Tyra discussed the conductor's responsibility:

... He must, through some visual means, indicate to the performer the durational progress of the measure... One possible solution is to let one hand, or arm, act as

---

Grainger, "Lord Melbourne," notes to bandleader, p. 29.
the hand of a clock which describes a circle whose circumference, from six o'clock to six o'clock, would indicate the duration of the measure. By watching this motion the performer would be able to see how quickly the measure was moving and thus be able to begin and end his material at the approximate point in the measure shown in his part.\footnote{Thomas Norman Tyra, "The Analyses of Three Twentieth-Century Compositions for Wind Ensemble," (Ph.D. dissertation, The University of Michigan, 1971), p. 78.}

\begin{ex}

\noindent Measure 31, page 11

\begin{diagram}

\end{diagram}

\end{ex}
Four of the selected conductors did not respond to measure 6 of *Stargazing*. The one respondent would use a basic one-beat pattern for each of the ten divisions of example 36. The respondent explained his interpretation of the symbology:

The approximate location of the \( \cdot \quad \cdot \quad \cdot \quad \cdot \quad \cdot \) within the barline indicates the approximate rhythmic positioning of that pitch within the \( \text{d} = 60 \) time frame—and, everything is approximate and to be loose and different according to the reactions and thought processes of each performer.  

---

Ex. 36  
Measure 6, page 8

---

8Hunsberger, response to questionnaire.
Suggestions were received from three of the selected conductors concerning page 1 of *Lineas y Puntos*. Even though the composer indicates *senza tempo* at the top of the score, he does, in fact, give a very precise tempo indication with the passing of seconds at the bottom of the page. Because of this indication of tempo, one conductor would proceed to match the beat patterns with the corresponding passing of seconds at a tempo of $\downarrow = 60$. In reference to example 37 on the following page, one conductor would use a basic four-beat pattern for measure 1, a basic three-beat pattern for measures 2 and 3, a basic four-beat pattern for measures 4 and 5, and a basic one-beat pattern for measure 6. The aforementioned patterns are indicated in the diagrams below.

Reed offered the following explanations:

No patterns as such in the first five measures. Down beat cues in each case, based on conductor's sense of time passing (according to tempo markings) in seconds.
The brass figures in measure 4 are to be attacked together on a cued "down beat" as quickly as possible. Cue for the brass chord in bar 5 after the feel of fifteen seconds has passed through conductor's mind (a sort of "off beat").

Measure 6 as the usual one to the bar, with preparatory up-beat.9

The other respondent would also give a down beat for each measure. The conductor pointed out the following rehearsal consideration:

Control measures 3 and 5 so that the sfp crescendos for eight and fifteen seconds evenly over the time frames indicated. These need to be balanced with left and right speakers at bottom of score.10

Suggestions were received from two of the selected conductors concerning page 5 of Lineas v Puntos. Fennell explained that the challenge to this selection is the "communication of passing pulses and

9Reed, response to questionnaire.

capsule groupings (measures) so that all know where they—and everybody else is."\textsuperscript{11}

The following comments were made by Hunsberger in relation to the example from Lineas y Puntos:

I would ask the composer to do the first rehearsal—and see if this is in actuality many distinct lines that are to be clearly etched or an over all mixing of indeterminate rhythmic sounds. I have read too many works of this type that are rhythmically confusing to the performer and which the composer could not beat, sing, tap or even describe.

As a rehearsal consideration, you would isolate the material and rehearse separately. \ldots From 1' 54''—2' 00'', it appears that each measure is worth two seconds; thus a two-beat pattern could be used. However, the example begins with a juxtaposed 3 (fl 3, ob 1, 2, cl 1, hns), and 2 (fl 1, 2, cl 2, tpt, tbn, tuba). Thus a one-beat per bar would be 30 m.m.—very indecisive for ensemble coordination.

1 to a measure = 30 m.m.
2 to a measure = 60 m.m.
3 to a measure = 90 m.m.\textsuperscript{12}

Page 5 of Lineas y Puntos, example 36, is presented on the following page.

\textsuperscript{11}Frederick Fennell, explanation included with completed questionnaire, Coral Gables, Florida, June 1979.

\textsuperscript{12}Hunsberger, response to questionnaire.
After completing the analysis of the beat patterns drawn by the college band directors and selected conductors concerning the interpretations of the irregular metric groupings and selected music examples, a composite listing of representative diagrams with respective meters may now be organized to show the interrelationships of the basic beat patterns with those patterns used for the irregular metric groupings and selected musical examples. These diagrams may be used as a reference by the school music conductor in dealing with other contemporary band compositions containing similar rhythmic characteristics.

**Reference Chart of Diagrams**

<table>
<thead>
<tr>
<th>Meter</th>
<th>Pattern</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{15}{4}$</td>
<td>[ \text{\underline{Basic 1}} ]</td>
<td></td>
</tr>
<tr>
<td>$\frac{1}{4}$</td>
<td>[ \text{\underline{Basic 1}} \text{ dictated twice} ]</td>
<td></td>
</tr>
<tr>
<td>$\frac{1}{8}$</td>
<td>[ \text{\underline{Basic 1}} \text{ upbeat} ]</td>
<td></td>
</tr>
</tbody>
</table>

![Diagram](attachment:Diagram.png)
(4) Subdivided 1

(5) Asymmetrical 1 (shortened 1/3)

(6) Basic down beat

(7) Basic 2 (emphasizing two measures of 3/8 as one of 6/8)

(8) Basic 2 (emphasizing 6/8 meter)

(9) Asymmetrical 2 (extended 1)
<table>
<thead>
<tr>
<th>Meter</th>
<th>Pattern</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10) (\frac{5}{8})</td>
<td>Asymmetrical 2 (extended 2)</td>
<td><img src="image1" alt="Diagram" /></td>
</tr>
<tr>
<td>(11) (\frac{2\frac{1}{2}}{4})</td>
<td>Asymmetrical 2 (extended 2)</td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
<tr>
<td>(12) (\frac{4\frac{3}{8}}{8})</td>
<td>Asymmetrical 2 (extended 1)</td>
<td><img src="image3" alt="Diagram" /></td>
</tr>
<tr>
<td>(13) (\frac{4\frac{3}{8}}{8})</td>
<td>Asymmetrical 2 (extended 2)</td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
<tr>
<td>(14) (\frac{3}{8})</td>
<td>Basic 3</td>
<td><img src="image5" alt="Diagram" /></td>
</tr>
<tr>
<td>(15) (\frac{3}{8})</td>
<td>Basic 3 (emphasizing 3/4 meter)</td>
<td><img src="image6" alt="Diagram" /></td>
</tr>
</tbody>
</table>
(16) \(\frac{9}{8}\) Meter Pattern Diagram

Basic 3 (emphasizing \(9/8\) meter)

(17) \(\frac{12}{8}\) Subdivided 3 (emphasizing \(3/2\) meter)

Asymmetrical 3 (extended 1)

(19) \(\frac{3+4}{8}\) Asymmetrical 3 (extended 1)

(20) \(\frac{10}{8}\) Asymmetrical 3 (extended 1)

(21) \(\frac{8}{8}\) Asymmetrical 3 (extended 1, 2)
<table>
<thead>
<tr>
<th>Meter</th>
<th>Pattern</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>(22) (\frac{4}{4})</td>
<td>Asymmetrical 3 (extended 1, 2)</td>
<td><img src="image1" alt="Diagram" /></td>
</tr>
<tr>
<td>(23) (\frac{4}{8}) (\frac{8}{8})</td>
<td>Asymmetrical 3 (extended 1, 2)</td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
<tr>
<td>(24) (\frac{3+2+3}{8})</td>
<td>Asymmetrical 3 (extended 1, 3)</td>
<td><img src="image3" alt="Diagram" /></td>
</tr>
<tr>
<td>(25) (\frac{2+3+2}{8})</td>
<td>Asymmetrical 3 (extended 2)</td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
<tr>
<td>(26) (\frac{2+3+3}{8})</td>
<td>Asymmetrical 3 (extended 2, 3)</td>
<td><img src="image5" alt="Diagram" /></td>
</tr>
<tr>
<td>(27) (\frac{4}{4})</td>
<td>Asymmetrical 3 (extended 2, 3)</td>
<td><img src="image6" alt="Diagram" /></td>
</tr>
<tr>
<td>Meter</td>
<td>Pattern</td>
<td>Diagram</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>( \frac{2+2+3}{\text{8}} )</td>
<td>Asymmetrical 3 (extended 3)</td>
<td>![Diagram 1]</td>
</tr>
<tr>
<td>( \frac{2}{3} )</td>
<td>Asymmetrical 3 (extended 3)</td>
<td>![Diagram 2]</td>
</tr>
<tr>
<td>( \frac{11}{8} )</td>
<td>Asymmetrical (subdivided 3 extended 3)</td>
<td>![Diagram 3]</td>
</tr>
<tr>
<td>( \frac{4}{8} )</td>
<td>Basic 4 (emphasizing two measures of 4/8 as one of 4/4)</td>
<td>![Diagram 4]</td>
</tr>
<tr>
<td>( \frac{4}{4} )</td>
<td>Basic 4</td>
<td>![Diagram 5]</td>
</tr>
<tr>
<td>( \frac{9}{8} )</td>
<td>Asymmetrical 4 (extended 1)</td>
<td>![Diagram 6]</td>
</tr>
</tbody>
</table>
Pattern Diagram

Asymmetrical 4
(extended 2)

Asymmetrical 4
(extended 2)

Asymmetrical 4
(extended 3)

Asymmetrical 4
(extended 4)

Asymmetrical 4
(extended 1, 2, 3)

Asymmetrical 4
(extended 2, 3)
<table>
<thead>
<tr>
<th>Meter</th>
<th>Pattern</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>(40)</td>
<td>Asymmetrical 4 (extended 3, 4)</td>
<td><img src="40.png" alt="Diagram" /></td>
</tr>
<tr>
<td>$\frac{10}{8}$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| (41)  | Basic 5 (2 + 3) | ![Diagram](41.png) |
| $\frac{5}{4}$ | | |

| (42)  | Basic 5 (3 + 2) | ![Diagram](42.png) |
| $\frac{5}{4}$ | | |

| (43)  | Asymmetrical 5 (extended 5) | ![Diagram](43.png) |
| $\frac{11}{8}$ | | |

| (44)  | Basic 6 | ![Diagram](44.png) |
| $\frac{9}{8}$ | | |

| (45)  | Basic 6 (4 + 2) | ![Diagram](45.png) |
| $\frac{12}{8}$ | | |
After analyzing the data cited in this chapter, one realizes that the college band directors and selected conductors have indeed presented viable solutions concerning the conducting techniques needed for specific irregular meters and nonmetrical organizations found in contemporary band literature. The school music conductor is encouraged to study and incorporate the following suggestions in his encounters with contemporary band literature containing similar rhythmic innovations.

(1) The appropriate conducting patterns for irregular meters are asymmetrical variants of the basic patterns. The consensus of opinion expressed by the majority of respondents substantiates McBeth's thesis that the asymmetrical beat patterns are, indeed, "combinations, partial or full subdivisions of the four basic frames used by most professional conductors." This interrelationship of basic patterns and asymmetrical

\[ \frac{12}{8} \quad \text{Basic} \quad \frac{3}{2} \]

\[ (2 + 4) \]

\[ \text{Diagram} \]

13McBeth, response to questionnaire.
beat patterns became apparent in the reference chart of diagrams given in this chapter.

(2) A helpful suggestion from Alfred Reed is to think of the majority of the irregular metric groupings as being additive meters based on the groupings of the eighth notes and then ascertain the needed conducting pattern from the numerator. \[(\text{4/4} \mid \frac{3+3+2}{8} = \text{an asymmetrical three-beat pattern with extended first and second beats.})\]

(3) A useful visual aid used by McBeth and several band directors is to draw a horizontal or vertical line over the irregular metric groupings to designate the specific beat pattern one might use to facilitate the rhythmic complexities. \[(\text{5/8} \mid \text{an asymmetrical two-beat pattern with an extended first beat.} \text{ 5/8} \mid \text{an asymmetrical two-beat pattern with an extended second beat.})\]

(4) It may be helpful at times to convert the fractional meter to a familiar asymmetric meter, or, conversely, relate the asymmetric meter to a fractional meter which implies the required extended beat pattern. \[(2\frac{1}{2}/4 = 5/8; \ 1\frac{1}{2}/4 = 3/8; \ 11/8 = 5\frac{1}{2}/4; \ 7/8 = 3\frac{1}{2}/4.)\]

(5) To ascertain the beat patterns needed to
conduct the additive meters, total the numerators and divide by two. \( \frac{2+3+2}{8} = \frac{7}{2} = \frac{3\frac{1}{2}}{2} = \) an asymmetrical three-beat pattern with an extended second beat.

(6) Trans-barline irrational figures can be simplified by rebarring the measures and controlling them with a basic beat pattern and/or an asymmetrical beat pattern.

(7) Several alternatives are available for controlling nonmetrical organizations: (a) The most frequently occurring beat pattern for nonmetrical organizations is a dictated one-beat pattern. This control may be in the form of a down beat per note (as in "Lord Melbourne") or a single down beat cue regulated by the conductor's awareness of the chronological passing of time. (b) A more precise indication of the chronological passing of time is to equate the duration in seconds to the similar beat pattern. Three seconds equal a basic three-beat pattern. (c) One of the selected conductors disagreed with the basic beat pattern consensus and stated that the interpretation of the nonmetrical music must be only approximate: "To be loose and different according to the reactions and thought processes of each performer."^14

^14Hunsberger, response to questionnaire.
This interpretive freedom is the desire of the composers cited in this chapter as they break away from tradition by negation of the barlines and disintegration of metrical regularity. This philosophy is eloquently expressed by Busoni: "Music was born free; and to win freedom is its destiny."\(^{15}\)

However, a paradox in regard to this interpretive latitude has become evident between the composers and conductors. In order to make the contemporary compositions accessible for performance, the conductors handle the rhythmic complexities by employing practical solutions such as the rebarring of measures and controlling them with basic beat patterns. In regard to this method of control, Tyra offers the following consideration:

\[\ldots\text{He [the conductor] will not be able to indicate every detail of the score during the actual performance. Musically, this is probably in complete accord with the composer's intent; that is, the work, to a great extent, is premised upon improvisation by the performers, and any attempt by the conductor to enforce absolute control of all musical elements of the score would be philosophically contrary to the composer's purpose.}\(^{16}\)


\(^{16}\)Tyra, "The Analyses of Three Twentieth-Century Compositions for Wind Ensemble," p. 78.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The following supportive evidence was found during the initial phase of the research to substantiate the claim that there is a need to intensify the conducting curriculum at the undergraduate level: (1) expressions of concern cited from music educators, (2) noted observations of reluctance among band directors to perform contemporary band compositions with rhythmic irregularities, (3) reports from the CbDNA, and (4) conclusions from the survey questionnaires. Although the scope of instrumental literature has become increasingly complex, it was further pointed out that the traditional period of training for conducting does not develop the additional conducting techniques which are necessary for the irregular meters and nonmetrical organizations inherent in contemporary band literature. The need for relevancy within the conducting curriculum was summarized by one college band director: "If band directors are going to
keep up with modern trends, they must be competent with irregular meters and nonmetrical organizations."

An examination of contemporary band literature available through the libraries of Louisiana State University and the Oberlin Conservatory revealed the frequent use of seven types of irregular metric groupings: (1) asymmetric meters, (2) additive meters, (3) combined meters, (4) fractional meters, (5) polymeters, (6) variable meters, and (7) trans-barline irrational figures. The examination further disclosed copious examples of band literature containing nonmetrical organizations.

Thirty-seven conducting textbooks were investigated to determine the accessibility of conducting diagrams the student might use to learn the conducting patterns needed for irregular meters and nonmetrical organizations. Only limited coverage of diagrams relating to these rhythmic innovations was found. The small percentage of textbooks with diagrams for the irregular meters is presented in table 3 of chapter 2. Tables 4-8 in chapter 2 identify the specific meters and the exact page numbers of textbooks where the few diagrams may be located.

The obvious need for relevant conducting materials
prompted the writing of this study. The primary purpose of this project was to present diagrammed representation for the conducting techniques necessary for the realizations of specific irregular meters and nonmetrical organizations found in selected examples of contemporary band literature.

Survey questionnaires were sent to band directors at sixty-five college institutions in the Southwestern Division of the Music Educator's National Conference in April 1978. The objectives of the questionnaire were to inquire into the undergraduate conducting curriculum, the director's previous training and experience, and the director's method of controlling specific examples of irregular meters. A return rate of 53.5 percent was achieved with thirty-four responses received. The information received concerning irregular meters was incorporated in chapter 4 and presented in the forty-six reference diagrams which resulted from this completed study. The following statements summarize the basic demographic findings:

(1) Average age of the respondents is 44.4 years, with 12.4 years experience at the present position, and 21.4 years of total teaching experience.

(2) All respondents have both the bachelors and
masters degrees with twenty-one of the directors (61.8 percent) having credit above the masters level. Twelve of the directors have a doctoral degree.

(3) Twenty-five of the band directors (73.4 percent) teach conducting at their respective institutions.

(4) Twenty-eight of the institutions (82.4 percent) offer separate classes for general instrumental and choral conducting.

(5) *The Modern Conductor* by Elizabeth Green is the undergraduate conducting text used by the majority of instructors (57.9 percent).

(6) A band literature course is taught in only six of the represented institutions (17.6 percent).

(7) The most frequently named asset of the band director's undergraduate preparation in conducting was the opportunity to work with a large ensemble. However, only a limited time spent working with that same ensemble was named as the greatest deficiency.

The writer was encouraged by the majority of favorable responses received from the college band directors which firmly established the need for this project.

(1) An overwhelming majority of directors
(97.1 percent) agree that a study treating the specific solutions to the conducting problems found in irregular meters and nonmetrical organizations would be of value to band conductors.

(2) The majority of respondents (91.2 percent) are of the opinion that irregular meters and nonmetrical organizations should be taught in the undergraduate conducting class.

(3) A majority of the band directors (68.2 percent) agree that the conducting of irregular meters and nonmetrical organizations does present a problem to the novice conductor.

(4) A majority of the directors (79.4 percent) favor a reevaluation of the undergraduate conducting curriculum as it relates to irregular meters and nonmetrical organizations.

Since the conclusions from the initial questionnaire firmly supported a need for relevant conducting materials, a second questionnaire was sent in June 1979, to noted band conductors chosen from the recommendations submitted by officers of the following band organizations: ASBDA, ABA, CBDNA, and NBA. This questionnaire consisted of three parts: (1) the original set of seventeen abstract examples of irregular metric groupings from the
first questionnaire, (2) twenty-five musical examples of irregular meters from specific band compositions, and (3) selected examples of nonmetrical organizations.

A return rate of 62.5 percent was achieved for the second questionnaire with the following five selected conductors responding:

(1) Frederick Fennell, conductor, Miami Wind Ensemble, University of Miami, Coral Gables, Florida


(3) Donald Kunsberger, conductor, Eastman Wind Ensemble, Eastman School of Music, Rochester, New York

(4) W. Francis McBeth, composer/conductor, Ouachita University, Arkadelphia, Arkansas

(5) Alfred Reed, composer/conductor, University of Miami, Coral Gables, Florida

A synthesis of diagrams, suggestions, explanations, and in depth discussions of the selected musical examples offered by these noted musicians was invaluable to this study. The conclusions drawn from their responses constitute definitive interpretations of the conducting techniques necessary for specific examples of irregular meters and nonmetrical organizations in contemporary band literature.
Conclusions

The following conclusions concerning the conducting techniques needed for irregular meters and nonmetrical organizations were drawn from the solutions and explanations presented by the college band directors and selected conductors, and from data cited in related literature:

1. A basic premise of contemporary music is that the value of the eighth notes must remain equal. Eighth notes moving too quickly to become the basic beats in a bar necessitate the employment of an asymmetrical beat pattern.

2. The appropriate conducting patterns for irregular meters are asymmetrical variants of basic beat patterns. The interrelationship of asymmetrical beat patterns to the basic beat patterns was exemplified in the reference chart of diagrams presented in chapter 4.

3. To conduct the simple and compound meter combinations that constitute an asymmetric meter, one or more of the beats must be extended to keep the eighth notes constant. One director suggested a "pulling of the wrist" to get the extra notes.

4. The internal grouping of the eighth notes
dictates the extended beat. The example $7/8\left|\begin{array}{c}j\hline\end{array}\right|$ requires an asymmetrical three-beat pattern with an extended second beat.

(5) One type of additive meter is easily recognized by its metric signature, as in the example $\frac{2+3+2}{8}\left|\begin{array}{c}j\hline\end{array}\right|$. Both the internal grouping of the eighth notes and the numerators signify the asymmetrical pattern and extended beats. A meter of $2+3+2$ would be conducted with an asymmetrical three-beat pattern with extended second beat.

(6) A second type of additive meter employs a traditional meter signature with an unorthodox arrangement of components within the measure, as in $4/4\left|\begin{array}{c}j\hline\end{array}\right|$. To conduct this example, disregard the traditional meter signature and refer to the additive meter which is implied by the grouping of eighth notes $-\frac{3+2+3}{8}$. Employ an asymmetrical three-beat pattern of extended first and third beats which was inferred from the numerators of the additive meter, or from the implicit eighth note groupings.

(7) Asymmetrical beat patterns may be necessary in measures of combined meters which alternate in a composition. The combined meter $2/4(5/8)\left|\begin{array}{c}j\hline\end{array}\right|$ requires an asymmetrical two-beat pattern with an
extended second beat in the 5/8 measure to keep the eighth notes equal in value.

(8) It is sometimes possible to think of the combined meters as being one meter. The above example of 2/4(5/8) can be interpreted as a 9/8\[\begin{array}{cccc}
\cdot & \cdot & \cdot & \cdot \\
\end{array}\]
which would demand an asymmetrical four-beat pattern with an extended fourth beat.

(9) Considering the two measures of combined meters as one meter is a viable solution when the combined meters are moving too quickly for the conductor to beat each individual measure. 3/8(2/8)\[\begin{array}{cccc}
\cdot & \cdot & \cdot & \cdot \\
\end{array}\]
may be thought of as one measure of 5/8 conducted in an asymmetrical two-beat pattern with an extended first beat.

(10) One type of fractional meter is used to extend a traditional meter, as in the example 2\(\frac{3}{4}\)\[\begin{array}{cccc}
\cdot & \cdot & \cdot & \cdot \\
\end{array}\], which extends the measure by one eighth. An asymmetrical two-beat pattern with extended second beat would be used to conduct the meter.

(11) A second type of fractional meter is employed to reduce a traditional meter, as in \(\frac{2}{3}\)\[\begin{array}{cccc}
\cdot & \cdot & \cdot \\
\end{array}\], where the measure is reduced by one third of a triplet. The reduction of meter adopts the premise that if a beat can be extended, then it logically can be
shortened. An asymmetrical one-beat pattern, which is shortened by one third would be used for this example.

(12) Graphics may aid the conductor in quickly recognizing the rapid metric changes characteristic of variable meters. Horizontal or vertical lines may be drawn over the eighth note groupings to indicate specific beat patterns. 5/8 3/8 7/8 would be conducted with an asymmetrical two-beat pattern with extended first beat, a basic one-beat pattern, and an asymmetrical three-beat pattern with extended first beat. 5/8 3/8 10/8 would be conducted with an asymmetrical two-beat pattern with extended second beat, a basic one-beat pattern, and an asymmetrical four-beat pattern with extended third and fourth beats.

(13) The necessary beat employed for the overlay of two or more meters within a polymeter may be determined by conducting the main melodic line.

(14) Through careful analysis it may be possible to find a single meter which works smoothly for the separate meters of the polymeter. In the following example, 4/8 8/8, think of the two measures
of 4/8 as one measure of 8/8 and use a basic four-beat pattern.

(15) At times an ambidextrous method may appear to be the solution for controlling a polymeter. As in the following example, use a basic four-beat pattern in the right hand, and an asymmetric three-beat pattern with extended first and second beats in the left hand.

(16) Where there is no beat, unit, or subdivision common between the measures of the polymeter, the director may choose to designate the passing time with a basic one-beat per measure. However, one conductor explained that this method is very indecisive for ensemble coordination.

(17) In some instances it is necessary to use two or more conductors to control a section of polymeters.

(18) One solution to controlling the irrational note groups carried over barlines, trans-barline irrational figures, is to conduct the basic beat patterns disregarding the metrical emphasis. However, this will throw the weight of subdivision upon the performers.

(19) If the subdivision is too awkward for the performers to handle through the conductor's basic beat,
it is helpful to completely rebar the measures on the basis of the strong accents, and conduct the resulting pattern with basic beat patterns or asymmetrical beat patterns depending upon the internal grouping of eighth notes and metrical emphasis.

(20) Nonmetrical organization lends itself to the philosophical discussion of control vs. freedom. An eloquent plea has been made that "music was born free and to win freedom is its destiny."\(^1\)

(21) The actual role of the conductor has not been clearly defined in the area of nonmetrical music. Suggested procedures are listed below: (a) The conductor may give a dictated one-beat pattern in the form of a down beat per note, or a single down beat cue per indicated section which is regulated by the conductor's awareness of the chronological passing of time. (b) A more precise indication of the chronological passing of time is to equate the duration in seconds to a similar beat pattern which is conducted throughout. Three seconds would, for example, equal a basic three-beat pattern. (c) The conductor can disregard a beat pattern and allow the performance to be, as Hunsberger explained, "loose and different according to the reactions and thought processes of each performer." (d) It may be

\(^1\)Busoni, "Sketch of a New Esthetic," p. 4.
possible, through future research, to establish innovative conducting patterns for nonmetrical organizations (as in the clock formation suggested by Tyra).

**Recommendations**

On the basis of the data gathered in this study, the following recommendations are made.

1. Irregular meters and nonmetrical organizations should be taught in the undergraduate conducting course because these rhythmic innovations are frequently found in modern music and demand a solution.

2. After the basic conducting patterns are firmly established, it is recommended that the appropriate patterns for irregular meters be introduced as asymmetrical variants to the basic patterns. Rather than being taught as "new" patterns, the interrelation­ship of the asymmetrical beat pattern to the basic pattern should be emphasized.

3. It is recommended that the composite chart of forty-six conducting diagrams serve as a primary source of reference for the school music conductor in learning the beat patterns for the specific irregular meters by imitating the corresponding diagrams. It is suggested that students of conducting study the feasibility of incorporating these diagrams in their encounters with
There appears to be ample evidence that future study of conducting techniques for nonmetrical music is urgently needed. The data obtained from this study could provide the basis for further investigation of nonmetrical music. It may be possible to establish completely new conducting patterns for nonmetrical organizations.

A band literature course should be incorporated into the required curriculum for prospective band directors. It is a logical assumption that the future band directors should be familiar with the band repertory.

Students of conducting should have more experience in conducting performance groups. It has been stated that "a conductor should not have to learn to direct a band by acquiring a job as a band director."

It is recommended that a replication of the study be made involving a different geographical area of the United States to serve as a method of comparison.

Instead of using a panel of selected conductors, it is recommended that future research consult the composers as to the proper conducting patterns for an
in-depth interpretation relating to the aesthetics of the music. 

(9) The videotaping of noted conductors in rehearsal of contemporary band compositions containing irregular meters and nonmetrical organizations affords another area of needed investigation.
### APPENDIX A

**TWENTIETH-CENTURY BAND LITERATURE INVESTIGATED IN THIS STUDY**

<table>
<thead>
<tr>
<th>Composer</th>
<th>Title</th>
<th>Publisher/Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samuel Adler (b. 1928)</td>
<td>A Little Night and Day Music</td>
<td>Carl Fischer, 1977</td>
</tr>
<tr>
<td>Henk Badings (b. 1907)</td>
<td>Armageddon</td>
<td>C. F. Peters, 1968</td>
</tr>
<tr>
<td>Herbert Bielawa (b. 1930)</td>
<td>Spectrum</td>
<td>Shawnee Press, 1967</td>
</tr>
<tr>
<td>Henry Brant (b. 1913)</td>
<td>Verticals Ascending</td>
<td>MCA Music, 1969</td>
</tr>
<tr>
<td>John Barnes Chance (1932-1972)</td>
<td>Blue Lake</td>
<td>Boosey &amp; Hawkes, 1971</td>
</tr>
<tr>
<td>Loris Chobanian (b. 1933)</td>
<td>Armenian Dances</td>
<td>Shawnee Press, 1977</td>
</tr>
<tr>
<td>Loris Chobanian</td>
<td>The Id</td>
<td>Ludwig Music, 1975</td>
</tr>
<tr>
<td>Chou Wen-chung (b. 1923)</td>
<td>Soliloquy of a Bhiksuni</td>
<td>C. F. Peters, 1961</td>
</tr>
<tr>
<td>Aaron Copland (b. 1900)</td>
<td>Inaugural Fanfare</td>
<td>Boosey &amp; Hawkes, 1976</td>
</tr>
<tr>
<td>Paul Creston (b. 1906)</td>
<td>Anatolia &quot;Turkish Rhapsody&quot;</td>
<td>Shawnee Press, 1978</td>
</tr>
<tr>
<td>Niel DePonte</td>
<td>Concertino for Marimba</td>
<td>Studio 4 Productions, 1978</td>
</tr>
<tr>
<td>Composer</td>
<td>Title</td>
<td>Publisher/Date</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Donald Erb (b. 1927)</td>
<td>Stargazing</td>
<td>Theodore Presser, 1969</td>
</tr>
<tr>
<td>Alvin Etler (1913-1973)</td>
<td>Concerto for Clarinet</td>
<td>Associated Music, 1964</td>
</tr>
<tr>
<td>Percy Grainger (1882-1961)</td>
<td>Lincolnshire Posy</td>
<td>G. Schirmer, 1940</td>
</tr>
<tr>
<td>Percy Grainger</td>
<td>The Power of Rome and the Christian Heart</td>
<td>Belwin-Mills, 1953</td>
</tr>
<tr>
<td>Clare Grundman (b. 1913)</td>
<td>Festive Piece</td>
<td>Boosey &amp; Hawkes, 1972</td>
</tr>
<tr>
<td>Paul Hindemith (1895-1963)</td>
<td>Symphony in B flat</td>
<td>Schott Music, 1951</td>
</tr>
<tr>
<td>Karel Husa (b. 1921)</td>
<td>Apotheosis of This Earth</td>
<td>Associated Music, 1971</td>
</tr>
<tr>
<td>Hanley Jackson (b. 1939)</td>
<td>Tangents III</td>
<td>Shawnee Press, 1972</td>
</tr>
<tr>
<td>Robert Jager</td>
<td>Third Suite</td>
<td>Volkwein Bros., 1967</td>
</tr>
<tr>
<td>W. Francis McBeth (b. 1933)</td>
<td>To Be Fed By Ravens</td>
<td>Southern Music, 1975</td>
</tr>
<tr>
<td>Martin Mailman (b. 1932)</td>
<td>Shouts, Hymns, and Praises</td>
<td>Boosey &amp; Hawkes, 1975</td>
</tr>
<tr>
<td>Andreas Makris (b. 1930)</td>
<td>Aegean Festival Overture</td>
<td>Galaxy, 1970</td>
</tr>
<tr>
<td>Composer</td>
<td>Title</td>
<td>Publisher/Date</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Thea Musgrave (b. 1928)</td>
<td>Scottish Dance Suite</td>
<td>G. Schirmer, 1963</td>
</tr>
<tr>
<td>Krzysztof Penderecki (b. 1933)</td>
<td>Pittsburgh Ouverture</td>
<td>C. F. Peters, 1967</td>
</tr>
<tr>
<td>George Rochberg (b. 1918)</td>
<td>Apocalyptica</td>
<td>Theodore Presser, 1966</td>
</tr>
<tr>
<td>Jose Serebrier (b. 1938)</td>
<td>Twelve Plus Twelve</td>
<td>C. F. Peters, 1969</td>
</tr>
<tr>
<td>Claude T. Smith (b. 1932)</td>
<td>Emperata Overture</td>
<td>Wingert-Jones, 1964</td>
</tr>
<tr>
<td>Claude T. Smith</td>
<td>Incidental Suite</td>
<td>Wingert-Jones, 1966</td>
</tr>
<tr>
<td>Claude T. Smith</td>
<td>Sonus Ventorum</td>
<td>Wingert-Jones, 1970</td>
</tr>
<tr>
<td>Fisher Tull (b. 1934)</td>
<td>Cryptic Essay</td>
<td>Boosey &amp; Hawkes, 1978</td>
</tr>
<tr>
<td>Fisher Tull</td>
<td>Reflections on Paris</td>
<td>Boosey &amp; Hawkes, 1975</td>
</tr>
<tr>
<td>Fisher Tull</td>
<td>Sketches on a Tudor Psalm</td>
<td>Boosey &amp; Hawkes, 1973</td>
</tr>
<tr>
<td>Fisher Tull</td>
<td>Soundings</td>
<td>Shawnee Press, 1967</td>
</tr>
<tr>
<td>Fisher Tull</td>
<td>Studies in Motion</td>
<td>Boosey &amp; Hawkes, 1977</td>
</tr>
<tr>
<td>Fisher Tull</td>
<td>Terpsichore</td>
<td>Boosey &amp; Hawkes, 1972</td>
</tr>
<tr>
<td>Robert Washburn (b. 1928)</td>
<td>Symphony for Band</td>
<td>Oxford University Press, 1967</td>
</tr>
<tr>
<td>Sven Erik Werner (b. 1901)</td>
<td>Combinations</td>
<td>Wilhelm Hansen, 1969</td>
</tr>
</tbody>
</table>
APPENDIX B

QUESTIONNAIRES

To College Band Directors

Your Name _______________________________________________________

Institution Name ________________________________________________

Age  _25-29;_30-35;_36-41;_42-47;_48-54;_55-60;_60+

1. How long have you been employed in your present position? _____ years

2. How many total years teaching experience do you have? (Include this year.) _____ years

3. Check the degrees you have, name the conferring institution, and the year in which the degree was received.

<table>
<thead>
<tr>
<th>Degree</th>
<th>Institution</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors (B.M., B.S., etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ed.D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.M.A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ph.D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>other (please explain)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

204
4. How many quarters (Q) or semesters (S) of conducting did you receive in your undergraduate preparation in conducting? _____ Q _____ S

5. Do you teach an undergraduate course in conducting at your institution? _____ yes _____ no

6. How many other faculty members are employed to teach conducting at your institution? ____

7. Which undergraduate conducting classes are taught at your institution?
   ___ instrumental conducting
   ___ choral conducting
   ___ choral/instrumental combined
   ___ other (describe) ___________________________

8. How many quarters (Q) or semesters (S) of conducting are required for each degree? (other)
   B.M.E. ___Q ___S M.M. ___Q ___S _________
   B.M. ___Q ___S M.M.E. ___Q ___S ___Q ___S

9. What is the title of the conducting text(s) used in the undergraduate instrumental conducting class?

10. What is the title of the conducting text(s) used in the graduate instrumental conducting class?

11. In which areas do all of your conducting students receive laboratory experience prior to student teaching?

   Conducting experience                        Number of times
   ___ conducting the university band           ____
   ___ conducting the university orchestra      ____
   ___ conducting the university choir          ____
Conducting experience | Number of times
--- | ---
conducting an area school band | ___
conducting an area school orchestra | ___
conducting an area school choir | ___
other (specify) | _____________ | ___

12. Of the methods of evaluation listed below, check which of the approaches are used in the undergraduate conducting class. Following each method, indicate the average number of times per semester (S) or quarter (Q) each student would be evaluated.

| Evaluation | Times |
--- | --- |
verbal, from instructor | ___ |
verbal, from other classmates | ___ |
written, from instructor | ___ |
written, from classmates | ___ |
videotape | ___ |
other (specify) | _____________ | ___

13. Is an undergraduate Band Literature course taught at your institution? ___ yes ___ no

14. The following composers have written music containing irregular meters and nonmetrical organizations characteristic of twentieth-century band literature. Indicate if you have performed any of their compositions with bands under your direction. Please list the specific composition(s) performed.

| Composer | yes | no | Composition(s) |
--- | --- | --- | --- |
Samuel Adler | ___ | ___ | __________________________ |
John Barnes Chance | ___ | ___ | __________________________ |
Chou Wen-chung | ___ | ___ | __________________________ |
<table>
<thead>
<tr>
<th>Composer</th>
<th>yes</th>
<th>no</th>
<th>Composition(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron Copland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henry Cowell</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingolf Dahl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thom Ritter George</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vittorio Giannini</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percy Grainger</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Howard Hanson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roy Harris</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walter S. Hartley</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paul Hindemith</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theodore Hoffmann</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alan Hovhaness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karl Husa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charles Ives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robert Jager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ulysses Kay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ernst Krenek</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andreas Makris</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Darius Milhaud</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaclav Nelhybel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roger Nixon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Krzysztof Penderecki</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>George Perle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vincent Persichetti</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composer</td>
<td>yes</td>
<td>no</td>
<td>Composition(s)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----</td>
<td>----</td>
<td>----------------</td>
</tr>
<tr>
<td>Walter Piston</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alfred Reed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Owen Reed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wallingford Riegger</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bernard Rogers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gunther Schuller</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William Schuman</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tibor Serly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Claude T. Smith</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Igor Stravinsky</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carlos Surinach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edgard Varèse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fritz Velke</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robert Washburn</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Please list the composer and title of other band compositions containing irregular meters and non-metrical organizations with which you are acquainted.


16. Indicate in column three the beat pattern that you would use for the following irregular metric groupings found in contemporary band literature.

In column four draw the patterns of motion you would use for each specific example. All exercises should be conducted with the \( j = \text{ca. 120} \), keeping the eighth notes constant.
Check in column five if the irregular meter is taught in the undergraduate conducting course(s) at your institution.

<table>
<thead>
<tr>
<th>Meter</th>
<th>Grouping</th>
<th>Pattern</th>
<th>Diagram</th>
<th>Taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\frac{8}{8}$</td>
<td>$\frac{8}{8}$</td>
<td>$\frac{8}{8}$</td>
<td>$\frac{8}{8}$</td>
<td>$\frac{8}{8}$</td>
</tr>
<tr>
<td>$\frac{5}{8}$</td>
<td>$\frac{5}{8}$</td>
<td>$\frac{5}{8}$</td>
<td>$\frac{5}{8}$</td>
<td>$\frac{5}{8}$</td>
</tr>
<tr>
<td>$\frac{9}{8}$</td>
<td>$\frac{9}{8}$</td>
<td>$\frac{9}{8}$</td>
<td>$\frac{9}{8}$</td>
<td>$\frac{9}{8}$</td>
</tr>
<tr>
<td>$\frac{\text{11}}{8}$</td>
<td>$\frac{\text{11}}{8}$</td>
<td>$\frac{\text{11}}{8}$</td>
<td>$\frac{\text{11}}{8}$</td>
<td>$\frac{\text{11}}{8}$</td>
</tr>
<tr>
<td>$\frac{\text{10}}{8}$</td>
<td>$\frac{\text{10}}{8}$</td>
<td>$\frac{\text{10}}{8}$</td>
<td>$\frac{\text{10}}{8}$</td>
<td>$\frac{\text{10}}{8}$</td>
</tr>
<tr>
<td>$\frac{3 + 4}{8}$</td>
<td>$\frac{3 + 4}{8}$</td>
<td>$\frac{3 + 4}{8}$</td>
<td>$\frac{3 + 4}{8}$</td>
<td>$\frac{3 + 4}{8}$</td>
</tr>
<tr>
<td>$\frac{2 + 3 + 3 + 2}{8}$</td>
<td>$\frac{2 + 3 + 3 + 2}{8}$</td>
<td>$\frac{2 + 3 + 3 + 2}{8}$</td>
<td>$\frac{2 + 3 + 3 + 2}{8}$</td>
<td>$\frac{2 + 3 + 3 + 2}{8}$</td>
</tr>
<tr>
<td>$\frac{4}{4}$</td>
<td>$\frac{4}{4}$</td>
<td>$\frac{4}{4}$</td>
<td>$\frac{4}{4}$</td>
<td>$\frac{4}{4}$</td>
</tr>
</tbody>
</table>
All exercises should be conducted with the \( \textbf{j} = \text{ca. 120}. \)

<table>
<thead>
<tr>
<th>METER</th>
<th>GROUPING</th>
<th>PATTERN</th>
<th>DIAGRAM</th>
<th>TAUGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{11}{8} )</td>
<td>( \frac{1}{2} )</td>
<td>( \frac{3}{4} )</td>
<td>( \frac{3}{8} )</td>
<td>( \frac{9}{8} )</td>
</tr>
<tr>
<td>( \frac{2\frac{1}{2}}{4} )</td>
<td>( \frac{3}{4} )</td>
<td>( \frac{3}{8} )</td>
<td>( \frac{9}{8} )</td>
<td></td>
</tr>
</tbody>
</table>
211

All exercises should be conducted with the \( \frac{3}{4} \) = ca. 120.

<table>
<thead>
<tr>
<th>METER</th>
<th>GROUPING</th>
<th>PATTERN</th>
<th>DIAGRAM</th>
<th>TAUGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. Please list other metric groupings with which you are acquainted.

<table>
<thead>
<tr>
<th>METER</th>
<th>GROUPING</th>
<th>PATTERN</th>
<th>DIAGRAM</th>
<th>TAUGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. What do you consider to be the most significant asset of your undergraduate preparation in conducting?
19. What do you consider to be the most significant deficiency of your undergraduate preparation in conducting?

20. Check statement A or B to present your reaction to the following opinions concerning irregular meters and nonmetrical organizations.

Please make an additional free response if you desire.

__ A. Irregular meters and nonmetrical organizations should be taught in an undergraduate conducting class.

__ B. Irregular meters and nonmetrical organizations should not be taught in an undergraduate conducting class.

(response)

__ A. A study treating the specific solutions to irregular and nonmetrical rhythmic problems would be of value to band conductors.

__ B. A study treating the specific solutions to irregular and nonmetrical rhythmic problems would not be of value to band conductors.

(response)

__ A. There should be a reevaluation of the undergraduate conducting curriculum content as it relates to irregular meters and nonmetrical organizations.

__ B. There should not be a reevaluation of the undergraduate conducting curriculum content as it relates to irregular meters and nonmetrical organizations.

(response)
A. I did receive the preparation and training in my undergraduate conducting classes necessary for the conducting of irregular meters and nonmetrical organizations.

B. I did not receive the preparation and training in my undergraduate conducting classes necessary for the conducting of irregular meters and nonmetrical organizations.

(response)

A. The conducting of irregular meters and nonmetrical organizations does present a problem for the novice conductor.

B. The conducting of irregular meters and nonmetrical organizations does not present a problem for the novice conductor.

(response)

Other Additional Comments Concerning This Questionnaire
To Prominent Conductors

Part I  (This section is identical to question sixteen in the questionnaire to the college band directors, and is not presented twice in the appendix.)

Part II

For each example indicate in block A the beat pattern that you would use for the irregular metric grouping found in the specific measure.

In block B draw the pattern of motion you would use for that measure.

(The musical examples included in this questionnaire have been previously presented within the body of the report and may be found in chapters 2 and 4. Blocks for the patterns and diagrams for each specific measure were drawn below the musical examples.)

Measure --

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
</tr>
</thead>
</table>

PATTERN DIAGRAM

Ex. 1. **Aegean Festival Overture** - Andreas Makris
measures 198, 200, 205, 210, and 212

Ex. 2. **Anatolia, "Turkish Rhapsody"** - Paul Creston
measures 32-33

Ex. 3. **Blue Lake** - John Barnes Chance
measures 69-71
Ex. 4. *Concerto for Clarinet* - Alvin Etler
fourth movement, measures 7-10

Ex. 5. *Lincolnshire Posy, "Lord Melbourne"* - Percy Grainger
fifth movement, measures 2, 3, 4, 7, and 8

measure 107

Ex. 7. *Scherzo, "Over the Pavements"* - Charles Ives
measures 63 and 64

Ex. 8. *Symphony in B flat* - Paul Hindemith
second movement, measure 97

Part III

Using the following criteria, please present your solutions to the following examples of nonmetrical organizations:

(a) What conducting pattern(s) would you use to control the contrasting rhythms?

(b) How would you control/rehearse the improvised material?

(c) Other comments concerning the conducting solutions to the complexities inherent in the example.

(The examples of nonmetrical organizations have been previously presented within the body of the report and may be found in chapters 2 and 4. Sections for responses were included below each example.)

(a) Pattern(s)

(b) Control/rehearse
(c) Other comments

Ex. 1. Lincolnshire Posy, "Lord Melbourne"
   Percy Grainger, fifth movement, free time section

Ex. 2. Pittsburgh Ouverture - Krzysztof Penderecki
   measure 31, page 11

Ex. 3. Stargazing - Donald Erb
   measure 6, page 8

Ex. 4. Lineas y Puntos - Cristobal Halffter
   page 1

Ex. 5. Lineas y Puntos - Cristobal Halffter
   page 5
Cover Letter to First Questionnaire

Currently I am gathering information for a doctoral dissertation in music education concerning the conducting techniques needed for irregular meters and nonmetrical organizations found in selected twentieth-century band literature.

Irregular meters are those which deviate from the normal duple and triple metrical schemes. Nonmetrical organizations are those which have no perceptible unit of measurement.

The enclosed questionnaire is being sent to all college band directors whose schools have full NASM accreditation within the Southwestern Division of MENC. The data gathered from the questionnaire will be used to help the band conductor understand specific and workable solutions for the conducting of the innovations in the field of irregular meters and nonmetrical organizations.

Any information received from you in this survey will be treated confidentially. Data will be reported in summary form; neither persons nor institutions will be mentioned by name. Results from the study will be made available upon request.

Your prompt completion and return of the questionnaire by April 30, 1978 will be appreciated. An addressed, stamped envelope is enclosed for your convenience. Thank you for your cooperation.

Sincerely,

John W. Knight
Graduate Student in
Music Education
Louisiana State University
Follow-up Letter for First Questionnaire

On April 10 I mailed a questionnaire to your office. At this time I have not yet received your reply. In case you might have forgotten it, I am sending you another form and another addressed, stamped envelope for your convenience. Please help insure the validity of the project by completing the questionnaire and returning it at your earliest convenience.

Sincerely,

John W. Knight
Ph.D. Candidate
Music Education
Louisiana State University
Letter to Officers of ASBDA, ABA, CBDNA, and NBA

For my doctoral dissertation in music education at Louisiana State University, I am currently gathering information concerning the conducting techniques needed for the rhythmic innovations of irregular meters and nonmetrical organizations for contemporary band literature.

A questionnaire will be sent to prominent band conductors who have expertise in contemporary conducting techniques. However, in order to be objective in selecting the band conductors, I am asking assistance from the officers of the following honorary band organizations: The American School Band Directors Association, The American Bandmasters Association, The College Band Directors National Association, and the National Band Association.

As an officer, I would like for you to recommend five conductors whom you feel have expertise in conducting the rhythmic innovations of irregular meters and nonmetrical organizations.

After tabulating the recommendations from the representative sampling, I will send the questionnaire to the prominent conductors.

Your prompt return of the information by June 18 will be appreciated. An addressed, stamped envelope is enclosed for your consideration. Thank you for your cooperation.

Sincerely,

Recommendations

Name                   Address

John Knight
Band Director
Oberlin Conservatory
Doctoral Candidate
Louisiana State University
Cover Letter to Second Questionnaire

Currently I am gathering information for my doctoral dissertation in music education at Louisiana State University concerning the conducting techniques needed for irregular meters and nonmetrical organizations found in selected twentieth-century band literature.

In response to my request, officers of NBA, CBDNA, ABA, and ASBDA recommended the leading conductors with expertise in contemporary band literature. As a result, I am seeking your help, and that of the other prominent conductors, with the final stage of my dissertation. The objective of this study will be to develop graphic analyses of the techniques necessary to conduct specific examples of irregular meters and nonmetrical organizations. To this end, I would like to know the conducting techniques you would use in several rhythmic innovations which are presented in the enclosed questionnaire.

I realize that the questionnaire is of considerable length. However, 97.1 percent of band conductors surveyed through a previous questionnaire indicated that a study treating the specific solutions to irregular and nonmetrical rhythmic problems would be of value to band conductors. Results from the tabulation of this questionnaire will provide a primary source for learning the necessary techniques for conducting irregular meters and nonmetrical organizations through the traditional method of imitating diagrams.

With plans to finish the project this summer, I would appreciate your completion and return of this information by July 4. An addressed stamped envelope is enclosed for your convenience. Thank you for your cooperation, and may I also extend an expression of gratitude to you for your service to contemporary band literature.

Sincerely,

John W. Knight
Band Director
Oberlin Conservatory
Doctoral Candidate, LSU
Letter to Publishers

Currently I am working on my doctoral dissertation in music education concerning the conducting techniques needed for irregular meters and nonmetrical organizations found in selected twentieth-century wind literature. At this time, I am requesting copyright permission from you to include the following selected measures of music in the completed dissertation.

I certainly appreciate your consideration. A stamped addressed envelope is enclosed for your convenience. Thank you for your cooperation, and may I also extend an expression of gratitude to you for your service to contemporary wind literature.

Sincerely,

John W. Knight
Band Director
Oberlin Conservatory
Doctoral Candidate
Louisiana State University

(List of selected music.)
APPENDIX D

RESPONDING INSTITUTIONS

Arkansas
Arkansas State University, State University
Arkansas Polytechnic College, Russellville
Henderson State University, Arkadelphia
Hendrix College, Conway
Ouachita Baptist University, Arkadelphia
University of Central Arkansas, Conway

Colorado
University of Colorado, Boulder
University of Northern Colorado, Greely
University of Southern Colorado, Pueblo

Kansas
Emporia Kansas State College, Emporia
Kansas State College of Pittsburgh, Pittsburgh
Southwestern College, Winfield
University of Kansas, Lawrence
Missouri
Evangel College, Springfield
Northeast Missouri State University, Kirksville
Northwest Missouri State University, Maryville
School of the Ozarks, Point Lookout
Southwest Missouri State University, Springfield
University of Missouri, Columbia

New Mexico
New Mexico State University, University Park
University of New Mexico, Albuquerque

Oklahoma
Cameron University, Lawton
Oklahoma Baptist University, Shawnee
Phillips University, Enid
Southwestern Oklahoma State University, Weatherford
University of Science and Arts, Chickasha

Texas
Baylor University, Waco
Hardin-Simmons University, Abilene
Lamar University, Beaumont
Sam Houston State University, Huntsville
Texas Christian University, Fort Worth
Texas Tech University, Lubbock
Texas Wesleyan College, Fort Worth
West Texas State University, Canyon
APPENDIX E

FREE RESPONSES FROM COLLEGE BAND DIRECTORS

1. This is a most interesting area which I have been interested in for some time. Good luck!

2. Conducting is very much akin to using a foreign language, and if you have mastered the language there is little difficulty in communicating with the musicians through the baton. I did my doctoral research in rhythmic discrimination and rhythmic action, so I believe that rhythm patterns, if properly taught to students will also dictate what patterns the conductor follows.

3. I have my freshman theory class conduct when sight-singing—excellent for learning basic frames. Because of this earlier work we can do more than the basics in our junior level conducting class.

4. Good idea—Bravo!

5. I would like to receive a copy of the results.

6. It was a very difficult questionnaire to answer.
7. You've proposed some interesting problems. I would be most interested in learning of the results, solutions, and suggestions generated by the questionnaire. Thank you for the opportunity!

8. Perhaps a bit too long and time-consuming for the respondents--it may affect your getting a good feedback. Good luck!

9. I am very interested in the results of your questionnaire. It is an excellently designed instrument. Most all should promote some provocative thinking as well as answers. Please let me know the results. Hope you can use my ideas.

10. Good luck on your dissertation. Your questionnaire is long and somewhat difficult to fill out. Once again, though, good luck!

11. At times the performer must be on his own and have a thorough understanding of his particular role in the rhythmic structure and pulse of the music. The conductor merely blends the various patterns to some long form of rhythmic unity that is common to both (two or more) rhythmic structures. As far as the frame is concerned--it is that frame which fits the pattern musically--so often the pattern is learned by rote to keep the conductor from getting lost!
12. Your examples lack accents that would influence one's execution and/or conducting.

13. It was a very tough questionnaire to answer. There are so many variables to consider. Best wishes for completing your project!

14. You can think of hundreds of rhythmic groupings that can be done on basic 1, 2, 3, 4, 5, 6, 7, 8, 9 patterns which should be useful if time allows. Particularly this project would be useful for advanced conducting classes.

15. This is a most interesting paper. I am devoted to the study and performance of original music for band, and especially contemporary music for band. This semester I used a six week block of time in second semester instrumental conducting to study Lincolnshire Posy. The class of twelve was responsible for the complete work. Each worked two movements in detail with the symphonic band--then Fennell worked with each of them while he was here. It was most rewarding to see the work of these young conductors. You have identified one of the two weakest areas of instructions in the majority of the undergraduate programs (the other being materials). Good luck and please send me a copy of the results.
16. The _____ band has been playing irregular meters for years and things that were difficult a few years ago are now quite easy. This may not be a new approach, but we think of every beat as simple or compound and each beat begins on the count of one.

17. I relate all time beating problems to musical problems.

18. A guide for the quick solutions to irregular meters would be helpful.
SELECTED BIBLIOGRAPHY

Books


Periodicals


Fennell, Frederick. "Percy Grainger's 'Irish Tune from County Derry' and 'Shepherd's Hey.'" The Instrumentalist, September 1978, pp. 18-25.


Miscellaneous Sources


VITA

John Wesley Knight was born April 17, 1943, in Little Rock, Arkansas. He was educated in the public schools at North Little Rock, Arkansas, and graduated from the University of Central Arkansas in 1969 with a Bachelor of Music Education degree. From 1969 to 1977 he was music department head and conductor of bands at Cassville High School, Cassville, Missouri. While at Cassville, Mr. Knight was awarded the Outstanding Teacher of the Year in 1973 and Outstanding Young Man of America in 1974. He earned the Master of Music Education degree from Louisiana State University in 1973.

In 1978, he accepted his present position at the Oberlin Conservatory of Music as instructor of Music Education, teaching courses in instrumental methods, conducting, and directing the symphonic band.

He married the former Kay Miller of DeWitt, Arkansas in 1969. They have one son, John Marcus.
EXAMINATION AND THESIS REPORT

Candidate: John Wesley Knight

Major Field: Music

Title of Thesis: Graphic Analyses of the Conducting Techniques for Irregular Meters and Nonmetrical Organizations Found in Selected Twentieth-Century Band Literature

Approved:

Robert F. Chambers
Major Professor and Chairman

Nevine E. Leinweber
Dean of the Graduate School

EXAMINING COMMITTEE:

Paul Lewis Abel

Kenneth Klan

James Scurlock

Date of Examination:

November 27, 1979