A STUDY OF PARAMETRIC ORGANIZATION
IN SELECTED WORKS OF LUIGI NONO

by

DOUGLAS NEEDLEY
B.Mus., University of British Columbia, 1969

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MUSIC

in the Department

of

MUSIC

We accept this thesis as conforming to the required standard.

THE UNIVERSITY OF BRITISH COLUMBIA

OCTOBER 1974
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Department of Music

The University of British Columbia
Vancouver 8, Canada

Date October 7th, 1974
ABSTRACT

The main purpose of this study is to characterize the changes in Luigi Nono's treatment of techniques of parametric organization as found in five works composed successively from 1954 to 1957: *Liebeslied* (1954), *Canti per tredici* (1954/1955), *Incontri* (1955), *Il Canto sospeso* (1955/1956) and *Varianti* (1956/1957). The method employed is that of establishing the composer's processes of ordering, and determining to what extent they are applied within each composition. Through a comparison of the systems of organization used in each of the five works it is possible to assess Luigi Nono's development in the use of serial techniques. This analysis is limited primarily to studying the parameters of pitch and duration. Although these two parameters are the only variables which are consistently examined within each composition, other parameters, including dynamics, are discussed when it is found that their systems of serial ordering are directly related to and governed by the same organizational principles which are applied to pitch and duration.

In the first four works discussed in this paper, namely *Liebeslied, Canti per tredici, Incontri* and *Il Canto sospeso,*
parametric organization is linked closely to a technique which, for the purpose of this study, has been termed "polytimbral continuity." This concept of polytimbral continuity, which could be considered to have developed from Klangfarbenmelodie, consists essentially of a continuous line of sound which has a constantly varying timbre.

In comparing the methods of parametric organization as found in the five works, two basic characteristics are evident.

The analysis of Liebeslied, Canti per tredici, Incontri and Il Canto sospeso have shown that with each successive composition the organizational systems not only become more complex but are also generally applied to a greater extent. Coinciding with this is the development of a technique of polytimbral continuity, the presentation of which in each successive work becomes more intricate. At the same time, the number of structural functions of polytimbral continuity in the ordering of parameters is increased.

In contrast to this trend towards a greater degree of organization within Liebeslied, Canti per tredici, Incontri and Il Canto sospeso, there can be found, within each of these compositions, areas in which the systems of ordering are not applied. Similarly, polytimbral continuity is not constantly employed throughout all works. In Varianti, the
concept and method of parametric organization is now changed completely. In discarding the technique of polytimbral continuity, Nono abandons the tendency of employing systems which specifically determine ordering of variable appearances.

Possibly the most significant quality in Nono's development of serial techniques is the composer's reluctance to adopt completely, systems of total control. Although methods of parametric organization become more complex, Nono always retains a certain degree of choice. This avoidance of complete predetermination provides at least a partial explanation as to why Nono seldom employs organizational systems consistently throughout a work. The extent of irregularities may vary from one composition to the next but change is always evident. There can be no doubt that Nono has intentionally refrained from unerringly following systems of total serialism.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
<td>viii</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td><strong>CHAPTER</strong></td>
<td></td>
</tr>
<tr>
<td>I. LUIGI NONO</td>
<td>6</td>
</tr>
<tr>
<td>Works Composed Before <em>Liebeslied</em></td>
<td>8</td>
</tr>
<tr>
<td>Works Composed After <em>Varianti</em></td>
<td>14</td>
</tr>
<tr>
<td>II. <em>LIEBESLIED</em></td>
<td>44</td>
</tr>
<tr>
<td>III. <em>CANTI PER TREDICI</em> AND <em>INCONTRI</em></td>
<td>84</td>
</tr>
<tr>
<td>IV. <em>IL CANTO SOSPESO</em></td>
<td>124</td>
</tr>
<tr>
<td>Movement II</td>
<td>129</td>
</tr>
<tr>
<td>Movement IV</td>
<td>148</td>
</tr>
<tr>
<td>Movement V</td>
<td>156</td>
</tr>
<tr>
<td>Movement VI B</td>
<td>169</td>
</tr>
<tr>
<td>Movement VII</td>
<td>172</td>
</tr>
<tr>
<td>V. <em>VARIANTI</em></td>
<td>184</td>
</tr>
<tr>
<td>Section A</td>
<td>189</td>
</tr>
<tr>
<td>Section B</td>
<td>245</td>
</tr>
<tr>
<td>VI. CONCLUSIONS</td>
<td>273</td>
</tr>
<tr>
<td><strong>APPENDIX</strong></td>
<td>278</td>
</tr>
<tr>
<td><strong>BIBLIOGRAPHY</strong></td>
<td>283</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pitch Omissions From Row Statements in the First Half of the Second Movement of <em>Canti per tredici</em></td>
<td>95</td>
</tr>
<tr>
<td>2.</td>
<td>Irregularities of Pitch Presentation in the First Half of <em>Incontri</em></td>
<td>99</td>
</tr>
<tr>
<td>3.</td>
<td>Statements of Duration Multiple Series in the First Half of <em>Incontri</em></td>
<td>118</td>
</tr>
<tr>
<td>4.</td>
<td>Statements of Duration Multiple Series in the First Section of Movement II of <em>Il Canto sospeso</em></td>
<td>143</td>
</tr>
<tr>
<td>5.</td>
<td>Statements of Duration Multiple Series in Movement IV of <em>Il Canto sospeso</em></td>
<td>153</td>
</tr>
<tr>
<td>6.</td>
<td>Pitch Ordering Within Each of the Three Lines of Polytimbral Continuity in Movement V of <em>Il Canto sospeso</em></td>
<td>161</td>
</tr>
<tr>
<td>7.</td>
<td>Duration Multiple Presentation in Each Line of Polytimbral Continuity in Movement V of <em>Il Canto sospeso</em></td>
<td>166</td>
</tr>
<tr>
<td>8.</td>
<td>Statements of Duration Multiple Series in Movement VI B of <em>Il Canto sospeso</em></td>
<td>171</td>
</tr>
<tr>
<td>9.</td>
<td>Density of the Sound-Blocks Contained Within Each Measure-Grouping of Section A of Varianti</td>
<td>197</td>
</tr>
<tr>
<td>10.</td>
<td>Frequency of Multiple-Voice Sound-Blocks in Measure-Groupings Involving Both Solo Violin and Orchestra in Section A of Varianti</td>
<td>203</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>11. Employment of Basic Durations in Section A of <strong>Varianti</strong></td>
<td>216</td>
<td></td>
</tr>
<tr>
<td>12. Duration Multiples Employed Within Measure Groupings of Section A of <strong>Varianti</strong></td>
<td>225</td>
<td></td>
</tr>
<tr>
<td>13. Relationship Between Length of Segment and Range of Duration Multiples in Section A of <strong>Varianti</strong></td>
<td>226</td>
<td></td>
</tr>
<tr>
<td>14. Relationship of Sound-Block Density to Duration Multiple Employment in the First Four Measure-Groupings of <strong>Varianti</strong></td>
<td>227</td>
<td></td>
</tr>
<tr>
<td>15. Relationship of Pitch to Sound-Block Density in Orchestral Segments of Section A of <strong>Varianti</strong></td>
<td>233</td>
<td></td>
</tr>
<tr>
<td>16. Range of Registers Employed By Sound-Blocks in the First Four Segments of <strong>Varianti</strong></td>
<td>236</td>
<td></td>
</tr>
<tr>
<td>17. Dynamic Levels Employed Within Measure-Groupings of Section A of <strong>Varianti</strong></td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>18. Performance Indication Patterns Employed With Specific Dynamic Patterns in Section B of <strong>Varianti</strong></td>
<td>262</td>
<td></td>
</tr>
</tbody>
</table>
LIST OF ILLUSTRATIONS

Figure | Page
--- | ---
1. Interval Palindromes in *Liebeslied* | 60
2. Polytimbral Continuity in *Liebeslied* | 68
3. Note Durations Employed Within *Liebeslied* | 76
4. Arrangement of Lines of Polytimbral Continuity in the First Half of the Second Movement of *Canti per tredici* | 106
5. Arrangement of Lines of Polytimbral Continuity in the First Half of Incontri | 108
6. Arrangement of Lines of Polytimbral Continuity in Movement II of *Il Canto sospeso* | 136
7. Arrangement of Lines of Polytimbral Continuity in Movement IV of *Il Canto sospeso* | 151
8. Arrangement of Lines of Polytimbral Continuity in Movement V of *Il Canto sospeso* | 158
9. Arrangement of Lines of Polytimbral Continuity in Movement VII of *Il Canto sospeso* | 175
10. Organization of Measure Groupings in Section A of *Varianti* | 189
11. Arrangement of Multiple-Voice Sound-Blocks in Measure-Groupings Involving Both Solo Violin and Orchestra in Section A of *Varianti* | 204
<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Pitch Ordering of Solo-Violin and Orchestra Sound-Blocks of Section B of <strong>Varianti</strong></td>
<td>251</td>
</tr>
<tr>
<td>13. Pitch Content of Solo-Violin and Orchestra Sound-Blocks in Section B of <strong>Varianti</strong></td>
<td>253</td>
</tr>
<tr>
<td>14. Dynamic Pattern Ordering of Solo-Violin and Orchestra Sound-Blocks of Section B of <strong>Varianti</strong></td>
<td>256</td>
</tr>
<tr>
<td>15. Dynamic Comparison With Respect to Pitch of Orchestral Sound-Blocks of Pairings 1 and 12 of Section B of <strong>Varianti</strong></td>
<td>257</td>
</tr>
<tr>
<td>16. Ordering of Performance Indication Patterns in Solo-Violin and Orchestral Sound-Blocks of Section B of <strong>Varianti</strong></td>
<td>260</td>
</tr>
<tr>
<td>17. Performance Indication Comparison of Orchestral Sound-Blocks of Pairings 1 and 12 of Section B of <strong>Varianti</strong></td>
<td>263</td>
</tr>
<tr>
<td>18. Basic Duration Content of Sound-Blocks in Section B of <strong>Varianti</strong></td>
<td>265</td>
</tr>
</tbody>
</table>
INTRODUCTION

The main purpose of this study is to characterize the changes in Luigi Nono's treatment of techniques of parametric organization as found in five works composed successively from 1954 to 1957: Liebeslied (1954), Canti per tredici (1954/1955), Incontri (1955), Il Canto sospeso (1955/1956) and Varianti (1956/1957). The method employed will be that of establishing the composer's processes of ordering, and determining to what extent they are applied within each composition. Through a comparison of the systems of organization used in each of the five works it will be possible to assess Luigi Nono's development in the use of serial techniques.

The term "parameter" was introduced in music theory by Dr. Meyer-Eppler of the Institute of Communication Theory at the University of Bonn.\(^1\) It was borrowed from mathematical jargon where it means "an independent variable through functions of which other functions may be expressed"\(^2\) and is now employed


in writings on music to denote the variables of sound. In his article "Metamorphoses of Musical Form," György Ligeti observes that with the application of serial processes to a number of both single and multiple event variables, the serial arrangement of pitch, which was the first parameter to be ordered in such a manner, has now become, in many composer's works, the "first thing sacrificed in this shift of emphasis." In order to determine whether or not this is the case with Nono's compositions, this study is limited primarily to the parameters of pitch and duration. Although these two parameters are the only variables which will be consistently examined within each composition, other parameters, including dynamics, will be discussed when it is found that their systems of serial ordering are directly related to and governed by the same organizational principles which are applied to pitch and duration.

In the first four works discussed in this paper, namely Liebeslied, Canti per tredici, Incontri and Il Canto sospeso, parametric organization is linked closely to a technique which, for the purpose of this study, has been termed "polytimbral continuity." This concept of polytimbral continuity, which could be considered to have developed from Klangfarbenmelodie,

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consists essentially of a continuous line of sound which has a constantly varying timbre. In contrast to the Klangfarben-melodie technique where there are often brief periods of silence, polytimbral continuity as found in these four compositions contains no stoppages but rather there is a continuous stream of sounds. A line of polytimbral continuity can be traced without interruption from voice to voice throughout the score with the parameter of timbre changing from one note to the next.

The primary distinction between the technique of polytimbral continuity and Schönberg's concept of Klangfarben-melodie is the constructional idea. In Nono's pointillistic scores, the single tone is not isolated as such within the composition but rather it is related to the entire musical structure through the technique of polytimbral continuity. Every note becomes part of one of a number of continuously sounding lines of constantly changing timbre which move throughout these works. Nono's technique of a transition from a single tone to musical structure is therefore remote from Schönberg's poetic concept of a contrapuntal-melodic flow of sounds.

More importantly, through its employment in Liebeslied, Canti per tredici, Incontri and Il Canto sospeso, polytimbral continuity is constantly being developed and it assumes several significant functions in the organization of duration, pitch
and dynamics. Through an examination of this technique in each of the works, these functions will become evident.

In discussing Nono's methods of organizing duration, two terms, basic duration and duration multiple, are employed to describe the fundamental components of his structural system. In these works the unit beat can be divided into 3 to 7 equal parts to create basic durations ranging from $\frac{1}{3}$ to $\frac{1}{7}$ respectively. A duration multiple is the number by which the basic duration is multiplied in order to determine the duration of a specific note. A line of polytimbral continuity is assigned one particular basic duration and no other is employed in determining the duration of notes in this line. As an example, a quarter-note in a polytimbral line utilizing the basic duration of $\frac{1}{3}$ must be the result of a basic duration of $\frac{1}{3}$ multiplied by the duration multiple of three. This rule of every note within a line having the same basic duration was defined by practice and substantiated by the employment of obviously symmetrical patterns of duration multiples, as will be seen in the discussion of the compositions.

As very little has been written on the life, musical compositions or socio-political ideology of Luigi Nono, Chapter I has been included in this study in order to provide a brief background of this composer for the reader.
The author's translations of each foreign language quotation employed in the text are included in the Appendix with the footnote numbers corresponding to those utilized within the respective chapters.
CHAPTER I
LUIGI NONO

Luigi Nono was born on January 29, 1924 in Venice and it was there that he spent his youth. Although he studied law at the University of Padua and received a degree in 1946, Nono also became involved with composition during this period. At the age of seventeen he met Malipiero who, in the words of Nono, "m'ouvrit tous les horizons de la musique."\(^1\) He then began studying music, auditing classes at the Benedetto Marcello Conservatory in Venice which was at that time headed by Malipiero. In 1946 Nono became acquainted with Bruno Maderna who, according to G.W. Hopkins, "pointed out to him the deficiencies of the academic mode of teaching and gave him a course in composition."\(^2\) Nono has made reference to this association with Maderna, stating:

Avec lui, je recommençai toute l'harmonie et repris mes études à leur début! C'est Maderna qui m'a donné la technique.\(^3\)

\(^3\) Martine Cadieu, op. cit., p. 9.
On the advise of Malipiero, Nono in 1948 continued his studies with Hermann Scherchen in Venice and then later followed Scherchen to Zurich where he attended all of his teacher's rehearsals. It was through this close relationship with Scherchen that Nono became most knowledgeable of the compositions of Schönberg and Webern. In talking about his studies with Scherchen, Nono stated:

Avec lui, durant ses voyages, j'ai découvert - et aimé - la tradition allemande. Nous faisions des analyses très approfondies de Schönberg et de Webern. Ces deux compositeurs ont agi profondément sur moi. J'admire particulièrement Schönberg, car il a touché à tout, atteint tout ce qu'il voulait atteindre, dans toutes les directions. Webern est certes plus limité, mais il a tant approfondi ses recherches qu'il a une influence certain et grave. 4

In 1950, Nono began an association with the Internationale Ferienkurse für Neue Musik in Darmstadt which provided him with additional stimuli and increased technical knowledge. The annual Ferienkurse, organized initially by Dr. Wolfgang Steinecke in 1946, had by this time established Darmstadt as an important center for both the discussion and performance of new music. Throughout the fifties Nono became increasingly more closely involved with the post-Webern movement at Darmstadt where he presented lectures and participated in composition workshops. Most importantly it was here that

4 Ibid.
many of his early compositions were given their première performances. It was mainly as a result of these performances that Nono became well known throughout Germany as one of the principal figures of the avant-garde.

Works Composed Before Liebeslied

Nono's first composition, the orchestral Variazioni canoniche based on the tone row from Schonberg's Ode to Napoleon, Opus 41, was written early in 1950. Its première performance was given at Darmstadt on August 27, 1950, with Hermann Scherchen conducting and, according to H.H. Stucken­schmidt, it enjoyed a "succès de scandale." As the score of this work was lost before publication, the sole method of acquiring information regarding its construction is through examining secondary source material. The only writer to comment at all on this particular composition is G.W. Hopkins who suggests:

...serialist principles are applied to all the aspects of sound; many kinds of canon are used in simple textures, and silences play a crucial part. It was undoubtedly this radical restraint and gentleness which

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shocked the Darmstadt listeners, and which later led a Parisian critic to entitle an article "En attendant Nono."⁷

However, as Hopkins has probably not studied the organization of Variazioni canoniche in great depth, these above observations may be considered questionable.

In 1951, Nono completed two compositions: Composizione per orchestra, which was first performed on February 18, 1952 in Hamburg, and Polifonica-Monodia-Ritmica for flute, B-Flat clarinet, bass clarinet, E-Flat alto saxophone, horn in F, piano, xylophone, cymbals, tom-tom, side-drum, and two small drums, which was given its première at Darmstadt on July 10, 1951. With the appearance of his early works, Nono was categorized perhaps somewhat too hastily as a "pur Weberien" by Antoine Goléa⁸ and undoubtedly this was at least partially a result of the brief three-movement chamber piece Polifonica-Monodia-Ritmica in which certain aspects of compositional technique characteristic of Webern are quite evident. In addition to the element of pointillism which was beginning to make an appearance in several of the compositions on display at Darmstadt at this time and which can be seen in this

work, there is evidence in Polifonica-Monodia-Ritmica of a motivic structure based on the recurrence and transformation of rhythmic and intervallic cells in the manner employed by Webern. Udo Unger examines this aspect in his article "Luigi Nono" in Die Reihe. In studying the score, it becomes apparent that motivic variation of rhythmic cells is the most significant element in the organizational structure of the piece. Although separate tone rows are evident in both Monodia and Ritmica, they are not employed in a manner consistent with the technique developed by and associated with the "classical" Viennese school. It is in this composition that the earliest illustration can be found of the trend in Nono's development of serial techniques to limit generally the organization of pitch to that of having the various tones of the row merely distributed evenly throughout the composition while at the same time stressing and developing more complex organizational systems for the parameters of duration and rhythm. This emphasis on the organization of rhythm over that of pitch continues in the succeeding compositions of Nono and, as will be found later, is an important characteristic in the construction of the five works analyzed in this study. In the second movement of Polifonica-Monodia-Ritmica another compositional technique is used, the significance of which increases

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when its employment here is compared to that found in the five pieces analyzed in this study. Monodia presents one of the earliest illustrations of Nono's employment of Klangfarbenmelodie. The usage of Klangfarbenmelodie here is extremely similar to that of polytimbral continuity\(^\text{10}\) which, in Liebeslied and the compositions immediately following it, becomes an integral part of Nono's complex system of parametric organization.

In 1952, the first real evidence of a strong commitment to relate artistic revolution with contemporary social and political revolution appears in Nono's compositions. Helmut Lachenmann comments:

Zu einer Zeit, als noch keiner daran dachte, mit roten Fähnchen sein Dirigentenpult zu schmücken, "Freibriefe für die Jugend" zu veröffentlichen oder Opernhäuser anzuzünden, verstand sich Nono schon als politisch engagierter und wirkender Musiker, dessen Kunst Appell sein wollte, Aufruf zu neuem Denken, vor allem gegenüber den offenen und latenten Denkformen des Faschismus und seiner Wurzeln, die er auch und besonders gefährlich in Vergesslichkeit und Bequemlichkeit sah — einer vergesslichkeit Bequemlichkeit, die es nicht zuletzt im ästhetischen Bereich nachzuweisen und aufzurütteln gilt.\(^\text{11}\)

Massimo Mila talks of Nono's passionate political and civil participation in contemporary affairs and states that the "civil passion coupled with his love of life and his faith in life and in the values of human relations often merge for him

\(^{10}\)For a definition of this term please refer to the Introduction.

in the myth of Spain, its revolution and political martyrdom, and the verses of its poets."¹² This is most apparent in Nono's next composition.

Epitaffio per Garcia Lorca consists of three main parts, each of which was given its première performance on separate occasions: Españ a en el corazón was completed in 1952 and was first performed on July 21, 1952 at Darmstadt where it met with great success; Y su sangre ya viene cantando was completed in the same year and given its première at Baden-Baden on December 17, 1952; Momento, Romance de la guardia civil española was not finished until 1953 and was first heard in Hamburg on February 16, 1953. Epitaffio per Garcia Lorca has been described as "una serie di lavori di Nono sulla guerra civile spagnola, con ritorno alla tonalità, cori parlati, formule di ariosi operistici, ritmi di danze popolari e canto gregoriano."¹³ Needless to say, Nono's employment of these compositional devices was not viewed favorably by many of the avant-garde at Darmstadt.

Nono's next composition, Due espressioni per orchestra, was completed in 1953 and given its première performance on October 11, 1953 at the Donaueschingen Festival with Hans Rosbaud conducting. It was also later heard at Darmstadt after

¹² Massimo Mila, "Luigi Nono," jacket notes for The New Music: Volume 3 (Victrola 1313).

which Brigitte Schiffer described the work as being "two studies in which the problems of compositional technique are subordinate to the expressive content."\(^{14}\) In the first of the Due espressioni, Klangfarbenmelodie found initially in Monodia is developed to a further extent.

The ballet *Der rote Mantel* which according to Nono "rapporta musica e coreografia"\(^{15}\) was completed in 1954. Its première was given on September 20, 1954 at the Berlin Festival for which it had been commissioned. *Der rote Mantel*, Nono's first stage work, is scored for soprano and baritone soli, chorus and orchestra and is based on Lorca's poem *In seinem Garten liebt Don Perlimplin Belisa*. This composition is constructed primarily on the rhythms of Spanish folk music which are employed not only to give local colour but also are developed in a manner that moves parallel to the dramatic action.\(^{16}\) *Der rote Mantel* presents the final example of Nono's use of dance movements which are found frequently in his early works.


Also completed in 1954, *La Victoire de Guernica* for chorus and orchestra is dedicated to Hermann Scherchen who conducted its first performance on August 25, 1954 at Darmstadt. This composition is based on a poem by Paul Eluard which was inspired by Picasso's picture of the same name. The powerful text which evokes memories of the fascist destruction of the Spanish town Guernica has been used by Nono in a variety of ways. The techniques of *sprechstimme* and speech chorus again play an important part as speech and song are employed alternately and simultaneously in different combinations throughout the work. *La Victoire de Guernica* is an exposure of and protest against man's inhumanity as seen through the tragedy of war. In this composition Nono abandons temporarily the basic principles of serial organization which have been advocated by his colleagues at Darmstadt in order to achieve a dramatic presentation of this message.

**Works Composed After Varianti**

After *Liebeslied* (1954), *Canti per tredici* (1954), *Incontri* (1955), *Il Canto sospeso* (1955/1956) and *Varianti* (1956/1957) the five works examined in this study, Nono in 1957 and 1958 created *La terra e la compagna* for soprano and tenor soli, chorus and instruments which was commissioned by the Norddeutschen Rundfunks of Hamburg. It was in that city
that the composition was given its \textit{première} performance on January 12, 1958. The text of La terra e la compagna is taken from the collection of poems \textit{Verrà la morte e avrà i tuoi occhi} by Cesare Pavese. This composition consists of three movements. The two poems, "Terra rossa terra nera" and "Tu sei come una terra" which are employed in the first movement, were written by Pavese two days apart; the former has the date October 27, 1945 while the latter, that of October 29, 1945. Although the last movement, being instrumental, does not obviously utilize a text, the second movement employs another Pavese poem "Tu non sai le colline" which was written on November 9, 1945. These three poems have in common "la tematica del rimpianto struggente per i caduti nella guerra partigiana."\textsuperscript{17} The two poems of the opening movement "appaiono quasi differenti modulazioni di un medesimo sentimento"\textsuperscript{18} and they are superimposed on their setting. Lines of text from these two poems are presented at times simultaneously while at other points during the movement they are alternately employed. These lines are always set completely and the original ordering is generally retained. However, the words are divided and treated syllabically. As a result of this treatment it is nearly impossible for the lis-

\textsuperscript{18}Ibid.
tener to perceive the meaning of the text. With each appearance of a new syllable the line of text moves to a new voice; no one voice presents any more than one syllable of a word in succession. The parameter of timbre then is continually being varied, following the presentation of the text. It is interesting to note that Nono has included dotted lines in the score to indicate this rapid movement of the text between voices.

La terra e la compagna is most significant to this study in that in this composition there are apparent organizational techniques which are similar to certain of those employed in the five principal works analyzed in this paper. The two most important of these are: (1) the technique of polytimbral continuity\textsuperscript{19} which is found in its most sophisticated form in Il Canto sospeso and is, in La terra e la compagna, modified and utilized in close connection with the presentation of the text; and (2) the practise of sound-block ordering as seen in Varianti, now being altered from a content of unison notes to that of multiple pitches.

Additional features can be found in La terra e la compagna which are similar to those of the earlier works, one of the most obvious being the clearly emphasized employment of

\textsuperscript{19} For a definition of this term please refer to the Introduction.
Varianti's "all interval" row at the beginning of the second movement. Also, in Nono's earlier compositions there can be seen a movement towards an increasingly more rhythmically and texturally complex score and La terra e la compagna falls within this development. Likewise, the scores are becoming more dense and the first movement of this composition, for 24 part chorus accompanied by 12 metallic percussion instruments (8 cymbals and 4 tamtams), attests to this. And finally, in La terra e la compagna can be found the division of the unit beat into 3 to 7 equal parts creating the basic durations \( \frac{1}{3} \) to \( \frac{1}{7} \) respectively and this is similarly the case in both Il Canto sospeso and Varianti.

All of these features, including polytimbral continuity and sound-block ordering, are most evident in Nono's next composition. Completed in 1958, Cori de Didone, for 32 part mixed chorus and percussion (8 suspended cymbals, 4 tamtams and bells), was commissioned by the city of Darmstadt and it was there on September 7, 1958 that the work was given its first performance with Bernhard Zimmermann conducting the chorus of Radio Cologne. This six movement composition is based on texts from La terra promessa by the contemporary Italian poet Giuseppe Ungaretti. While in the previous work, the text was presented syllable by syllable, there is now an even greater
division of the words into consonant and vowel sounds. This technique of employment is not used entirely throughout but rather it is found supplemented at times by the syllabic method of presentation. A good example of this can be seen in examining the setting in the opening movement of the first two words "La sera" where the subdivisions "La se-ra" and "L-a s-e-r-a" are both employed. Although the text is presented completely and in its original ordering, this treatment makes the words completely unintelligible.

During 1958 Nono made a visit to Poland and it was in connection with his stay there that a new work was sketched out. Composizione per orchestra Nr. 2: Diario polacco '58, which is dedicated to his wife Nuria, was completed in Italy on July 15, 1959 and was given its première performance on September 2, 1959 at Darmstadt with Bruno Maderna conducting. It should be mentioned that a revised version in which electronic tape is employed near the end of the composition was published in 1965. The score of Composizione per orchestra Nr. 2 is the most dense Nono has created up to this point and could possibly be considered the culminating point in this particular development. The work requires four complete orchestras each with 22 instrumentalists and the location of every performer on the stage is specified by Nono in a diagram which precedes the piece in the
published score. Throughout these 88 individual parts, no instrument generally plays at any given entry more than one single tone and this results in producing the most extensive example of the employment of pointillism in Nono's works. After this composition, he gradually abandoned the technique. Most of the features mentioned previously in conjunction with both *La terra e la compagna* and *Cori di Didone* can also be found in *Composizione per orchestra Nr. 2* however, they are now greatly modified and for the most part do not play as significant a role in the organization of the work.

While through his musical activity at Darmstadt Nono became quite popular with the public of West Germany during the early part of the fifties, negative reactions toward Nono later became most apparent. These emanated both from his colleagues and the populace. With his early compositions, the first real evidence appears of what is to develop into a strong commitment to relate artistic revolution with contemporary social and political revolution. As a result of this aspect, which at that time was not common in contemporary compositions, Nono's music had a strong appeal to the public. For Nono, music "e un mezzo di intervento, attivo o passivo, nella società attuale"\(^\text{20}\) and as can be seen through examining the

works mentioned up to now, his social and political commitment became even stronger. With the increased political activity of Nono who by that time had been drawn to communism, he experienced, toward the end of the decade, the reaction of the West German public. They had endured enough of the "leftish" flirting and did not wish to be irritated on their path to restoration by a man who, beyond worldly humanism, was serious about socialism. Nono was being shown the cold shoulder.  

While at one time he was supported by German's avant-garde circles this was no longer the case. Helmut Lachenmann comments:

Aber Nono entzog sich allen Umarmungen, als er sah, wie feindlich und gleichgültig man seinen eigenen Idealen gegenüber verharrte. Seine Texte wurden direkter, seine Musik wurde plakathafter, er selbst wurde menschlich hörter, sein Verhalten in allen Bereichen, auch gegenüber der jungen Generation, immer provorzierender. Es schien manchmal, als laufe er Amok gegen alles, was sich an Freundschaften und Verbindungen zu ihm gebildet hatte. Aber er zog und er ertrug alle Konsequenzen seiner politischen Haltung, wobei das Unrecht, welches gerade die Öffentlichkeit bie uns ihm antat, indem sie ihn weithin zu ignorieren sich anschickte und glaubte, ihn abtun zu können als einem durch politische ideen vom künstlerischen Wege Abgekommenen - wobei dieses Unrecht seine Enttäuschung und Ressentiments gegenüber den Westdeutschen recht fertigt.

This Enttäuschung and Ressentiments can be sensed in a recent

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22 Ibid.
interview with Leonardo Pinzauti where Nono makes several negative comments about the people of West Germany and their music and at one point suggests that the German radio and musical institutions have boycotted him for years.  

Although Nono had been actively involved with the post-Webern movement at Darmstadt since 1950, he was not totally committed to every concept and technique put forward by his colleagues. In several compositions, Nono utilizes what was considered to be "traditional" compositional devices including those mentioned in the previous discussion of *Epitaffio per Garcia Lorca* and this employment was not in line with avant-garde ideals. This was one of the early indications of a disagreement between Nono and certain members of the contemporary music scene at Darmstadt which was eventually to lead to a direct confrontation in 1959. It was in that year at the *Internationale Ferienkurse für Neue Musik* that Nono gave a lecture on "History and Present in Today's Music" criticizing specific principles of the New Music movement. According to Karl H. Wörner, Nono condemned "the radical rejection of tradition, the repudiation of history as a continuing process, the introduction of ancient Chinese conceptions into present-day music."

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music, the abstraction and idolizing of the material itself, the idea that improvisation and chance are a universal panacea."\(^{24}\) As this lecture later evolved into the periodical article "The Historical Reality of Music Today" which is easily accessible,\(^{25}\) it is not necessary at this time to further elaborate on its content but the resulting consequences of this event should be examined. Not only did this lecture define Nono's position and separate him ideologically from many other avant-garde composers but it also, according to Massimo Mila, "segno l'inizio d'una differenziazione in seno al gruppo, fino allora compatto, dei musicisti della nouvelle vague."\(^{26}\) Although in his lecture Nono only mentioned by name Joseph Schillinger and John Cage, Karlheinz Stockhausen must undoubtedly have felt that he had been directly attacked by Nono's remarks as in the discussion which followed an argument between the two occurred. This was hardly unexpected since as Marcella Barzetti has stated "Luigi Nono appears,


in discussions, more militant than persuasive."\(^{27}\) While the argument itself did not get very far at the time,\(^ {28}\) it marked the beginning of a conflict which appears to have been going on ever since. In Nono's lecture, he criticizes the "imperialist thinking" of "some European artists" stating that "Instead of undertaking a serious study of the spiritual substance of other civilizations - which is certainly valid and necessary - they excitedly grab the products of the East in order to titillate the fascination of their exoticism."\(^ {29}\) It is this "imperialistic" attitude that is one of Nono's main criticisms of "Karlheinz I" as he calls Stockhausen and in an interview with Leonard Pinzauti in 1970, Nono speaking of Stockhausen stated:

Egli si rifa - mettiamo in Stimmung - a certi fatti, stimoli o ambienti sonori che si riscontrano in India (mi riferisco a certe ritualità buddiste del Tibet) e li usa in modo colonialistico (questo termine lo dissi già nel 1959 a proposito di una pratica musicale di Cage): astraendoli dal loro contesto, dalla loro funzione e dalla loro storia in un modo tipicamente neoclassico (Messiaen in questo "caso India" insegna). Hymnen, poi, è per me fra le composizioni più esemplari di un preciso atteggiamento imperialistico: di Karlheinz I anziche di Wilhelm II (ma è


\(^{29}\) Luigi Nono, "The Historical Reality of Music Today," Score, XXVII (July, 1960), p. 44.
This lecture of 1959 in effect resulted in Nono's break not only with the musical activity of Darmstadt but also with many composers who were involved there. Nono has since then expressed his regret at being considered as one of the "Darmstadt composers" and has gone so far as to say that "Quelli della scuola di Darmstadt si sono fermati come davanti ad un muro."

In 1960, Nono completed three compositions, Sara dolce tacere, Ha venido, Canciones para Silvia and Omaggio e Emilio Vedova. Dedicated to Bruno Maderna, Sara dolce tacere was dated April 13, 1960 and given its first performance on February 17, 1961 in Washington, D.C. This work which is scored for eight soloists arranged into two quartets of soprano-alto-tenor-bass was commissioned by the Elizabeth Sprague Coolidge Foundation in the Library of Congress, and as was the case with La terra e la compagna, the text is taken from Cesare Pavese's Verrà la morte e avrà i tuoi occhi with different poems now being utilized. The method of text setting in Sara dolce tacere is somewhat similar to that of La terra e la compagna and Cori di Didone however the pointillistic quality once so prominent

31 Ibid, p. 75.
32 Ibid, p. 81.
is not as significant here since there frequently appear several notes presented in succession by one voice at a time. The light scoring of *Sarà dolce tacere* is a great contrast to the compositions completed immediately preceding which were rhythmically and texturally complex as well as dense.

This light scoring and thin texture is also evident in *Ha venido, Canciones para Silvia* which Nono dedicated to his daughter Silvia for her first birthday. This work for solo soprano and chorus of six sopranos is dated May 16, 1960, was given its première performance in London on November 3, 1960 and has as its text four brief poems by Antonio Machado. Pointillism is even less of a factor here than in the previous works. In certain passages throughout *Ha Venido*, the technique of polytimbral continuity can even now still be seen, employed mainly in conjunction with the solo soprano line.

*Omaggio a Emilio Vedova*, for tape only, is Nono's first electronic music composition and it was created in October 1960 at the Studio di Fonologia RAI in Milan under the guidance of his former teacher Bruno Maderna. The painter Vedova is a close friend of the composer and Nono has said of him:

Vous savez que nous travaillons sur des voies parallèles et que nous nous aidons beaucoup, en bonne aïmité. Lui aussi a pris une position engagée, "responsable," devant
Since completing this first venture into electronic music, Nono has employed electronic tape frequently, either by itself or in combination with instruments and/or voices. Possibly Nono's best known composition is the stage work, or rather more correct azione scenica as the composer has termed it, Intolleranza 1960. There can be little doubt that of his output up to date this composition has received more attention at its performances than any other work.

Intolleranza 1960 was given its first performance on April 13, 1961 with Bruno Maderna conducting the BBC Symphony Orchestra and the RAI Chorus at the Teatro la Fenice in conjunction with the International Festival of Contemporary Music of the Venice Biennale. It resulted in one of the noisiest demonstrations in the history of Venetian theatre. This disturbance according to several reviews, appeared to have stemmed from two interrelated sources: musical and political. Mario Labroca, the festival's director, contends that "conservative musicians, opposed to the avant-garde style of Nono's

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music, joined hands with neo-Fascists, who are opposed to twelve-tone music in any form, to instigate this obviously planned and prepared riot."\textsuperscript{35} The agitators, equipped with whistles and stench bombs, shouted obscene names from their position in the balcony and they showered the theatre with leaflets entitled "The New Order" which attacked Nono's music, terming it "...nothing but a schematization of contrary notes which showed us what can happen when democracy is extended into the field of music,"\textsuperscript{36} Other members of the audience countered with shouts of "Fascisti" and "Cretini" and the performance had to be stopped for several minutes as police moved in to restore order. The work was then completed, accompanied by the chorus of constant booing. At one point during the evening the stage designer Emilio Vedova, a 6 foot 6 inch man, rose from his seat on the main floor and shouted insults to the demonstrators, taunting them to come down and fight. No one took up the challenge.\textsuperscript{37}

The first German performance of \textit{Intolleranza 1960} on April 3, 1962 in Cologne, although not as violent as the Venice


\textsuperscript{37} Ibid.
première, was none the less a very stormy occasion with certain numbers of the audience furiously voicing their protest. Incidents surrounding the North American première of this work are also noteworthy. The trouble started when Nono, an acknowledged member of the Italian Communist Party was refused a visa to go to Boston in accordance with a United States immigration ban on "subversives." He finally made it there thanks to intervention by some Boston musicians and Senator Edward Kennedy. Nono was then later upset at the performance given by the Boston Opera Company and he subsequently wrote a lengthy letter in Rinacita, an Italian Communist weekly, about his trials and tribulations in Boston. Problems involving Nono's political ideology have even reached the point where performances of his compositions have had to be cancelled. Intolleranza 1960 was to have been performed at the 1972 Florence Maggio Musicale but Nono withdrew his work from the festival when he realized that Menotti's The Consul was to be included. Nono termed Menotti's opera "pro-American, conceived during the Korean war" which lead to further attacks


39 "Red composer disgruntled: he came, was heard, then lambasted Boston Opera," Variety, CCXXXIX (June 9, 1965), p. 1.

and counterattacks in public by the two composers. Interestingly enough, even though the Italian Communist press have defended both Nono and his compositions, particularly *Intolleranza 1960*, this *azione scenica* has been coolly received behind the Iron Curtain.\(^4^1\)

In an interview with Martine Cadieu, Nono pointed out that similar to *Il Canto sospeso* the subject of *Intolleranza 1960* is "*L'intolérance du monde contemporain.*"\(^4^2\) Shortly after its première performance in Venice, Nono wrote an extensive article on *Intolleranza 1960* at which point he stated that "sempre la genesi di un mio lavoro è da ricercare in una 'provocazione' umana: un avvenimento un'esperienza un testo della nostra vita provoca il mio istinto e la mia coscienza a dare testimonianza come musicista-uomo."\(^4^3\) The "provocazioni" for this work include: (1) mining disasters caused by criminal negligence, one of the most tragic of those being that of Marcinelles in Belgium; (2) the great demonstrations which in July 1960 blocked an attempted restoration of fascism in Italy; (3) the struggles of the Algerians for their own liberty;


(4) several manifestations of racial intolerance and neo-Nazi rigurgiti in 1960; and finally (5) the flood of the Po and the tragedy of Polesine. All of these incidents have directly affected the content of the work as obvious references to each can be seen throughout.

The libretto of this azione scenica is primarily an adaption by Nono of a much more extensive libretto by Angelo Mario Ripellino, however, other material is added at certain points during the composition including inserts of poetry by the revolutionary and Communist writers Elvard, Majakowski and Brecht. There is also found what Nono terms "documentazione diretta" which consists of: (1) the slogans "nie wieder!" from post-World War II Germany, "no pasaran!" of the anti-franchise struggle, "morte al fascismo e libretà ai popoli!" of the Communist partisans, "down with discrimination!" against racism in the United States and "la sale guerre" against the Franco-Indonesian colonialist war; (2) reports of Nazi interrogation in Julius Fucik's Scritto sotto la forca; (3) from la tortura by Henri Alleg; (4) from J.-P. Sartre's introductory writing for la tortura; and (5) some expressions of Parisian policemen.

For Nono, Intolleranza 1960 "represents the awakened

44 Ibid.
conscience of a man in rebellion - a refugee miner - against the constraint of necessity, searching for a humane basis of existence." The work is divided into two acts of seven and four scenes respectively. The central character of the plot is driven by homesickness back to his native land. On the way he gets involved in a political demonstration and is arrested, which leads to a brain-washing and torture scene, with commentary by Alleg and Sartre, and is followed by the horrors of a concentration camp where a tortured man sings the words of Julius Fucik. The refugee then escapes with an Algerian. The first scene of Act II entitled in the German edition "Einige Absurditäten des heutigen Lebens" consists of a tape montage of electronic effects and spoken voices in various languages as accompaniment to a pantomime portraying the decadent nature of the capitalistic civilization and including a strip tease. Simulated radio announcements tell of preparation for war and atomic attacks; the scene then ends with a great explosion and blackout, signifying the atomic bomb. The stage action then continues and the refugee meets a woman who becomes his companion. In the last scene, when finally reaching home they find the village about to be flooded as the result of a bursting dam.

At the close of the work they are engulfed in the flood but, at least according to Stuckenschmidt, the belief that the world can be changed, survives.\textsuperscript{47} At the \textit{première} of \textit{Intolleranza 1960} in Venice, Emilio Vedova was responsible for staging and for that performance the scenery consisted of more or less neutral coloured flat-drops in a variety of geometric shapes which were lowered and raised in different parts of the stage as the scenes changed. Hundreds of slides including abstract paintings by Vedova, slogans and segments of the libretto were shown by more than twenty projectors against these drops. Nono maintains that these "Image filmées (abstraites ou non - pour moi elles sont conçues par Vedova) en même temps que l'action, non comme une support passif mais comme une action parallèle."\textsuperscript{48} Nono employs these projections along with the action of the characters to move toward, as he puts it, a multidimensional use of the visual space.\textsuperscript{49}

\textit{Intolleranza 1960} is scored for five soloists, four actors, large mixed chorus and orchestra of eighty which includes a large percussion section. All of the choruses are


recorded on tape and transmitted to the audience by means of four groups of loudspeakers placed in varied specific positions in the hall as defined in the score. By moving the signal from one channel to another on the tape, Nono is able to make the sound transfer from one source to another around the audience. Throughout the choruses, the sound direction is changing constantly and in the score there is notated the combination of loudspeakers which is employed at any specific time. Nono speaks of this technique in terms of creating a multidimensional use of the sonorous space.\(^50\)

As Nono in his article "Alcune precisazioni su Intolleranza 1960" writes about parametric organization in this work, it is not essential to pursue it any further at this point. Nevertheless, there is one compositional technique which is interesting to note and that is the characterization of roles by means of interval employment. Although not found constantly, there is a direct and obvious association made between specific intervals and each of the principal roles, with each character being introduced with the intervals allotted to him.\(^51\)

The next composition completed by Nono was *Canti di vita e d'amore* which was dated June 30, 1962 and first performed.

\(^{50}\) *Ibid*, p. 285.

\(^{51}\) For further information on this technique see *Ibid*, pp. 282-285.
at the 1962 Edinburgh International Festival for which it was commissioned. This three movement work is scored for soprano and tenor soloists with orchestra and the text for each movement is taken from the writings of three different men. The first movement entitled "Sul ponte di Hiroshima" employs verse from Günther Anders' *Essere on non Essere - Diario di Hiroshima e Nagasaki* while in the second, "Djamila Boupacha," a canto of *Esta noche* by Jesus Lopez Pacheco is found. In the last movement which is called "Tu" a poem from Cesare Pavese's *Passero per Piazza di Spagna* is used. The theme of *Canti di vita e d'amore* is, in Nono's words, "to show love within the consciousness of today's realities ("No more Hiroshima," the two episodes in the anti-fascist and anti-colonialist struggle, i.e. Spain and Algeria), and in the sense of the struggle of life today and its inescapable outcome." In discussing the first movement the composer has stated that "the" compositional technique... includes a continuous space of sound, in the compass of an octave subsequently enlarged to four superimposed octaves, and blocks of sound consisting of various intervals down to quarter-tones." He later continues, stating "I use quarter-

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53 Ibid.
tones (strings and brass) here for the first time, for subdividing and expanding the harmonic field: thus I am permitted to enlarge it to four octaves and yet to avoid the relation of the octave."54

Canciones a Guiomar, also written in 1962, is scored for soprano, celesta, guitar, viola, cello and percussion and was first performed at Darlington under the composer's direction. Having the text of a poem by Antonio Machado, it is a lonely reflection by a lover, or as in the words of Nono, "the dream of real love."55

In 1964, Nono completed La fabbrica illuminata for solo soprano and electronic tape in the studio at Milan. This composition makes use of blast furnace noises and voices which have been recorded in a mill. These are then integrated on tape with electronically generated sounds and subjected to many transformations. During the tape performance the soprano sings a commentary to the events happening on the tape. This commentary refers directly to the tape music and indirectly to the situation under which the noises were recorded: the working process and social injustice in a factory or mill.56 The text

54 Ibid, p. 12.
55 Ibid, p. 11.
of La fabbrica illuminata includes writings of Giuliano Scabia and Cesare Pavese combined with "factory jargon, quotations from labour contracts and political definitions."\footnote{Adrian Jack, "Kagel and Nono," \textit{Music and Musicians}, XX (August, 1972), p. 63.}

Nono has in the past few years taken his works employing electronic tape, including La fabbrica illuminata, and presented them with or without live performers in small town halls, factories and open spaces throughout Italy. He contends that "La rivoluzione non è mandare i contadini a teatro allo stesso modo dei borghesi."\footnote{Leonardo Pinzauti, "A Colloquio con Luigi Nono," \textit{Nuova Rivista Musicale Italiana}, IV (January-February, 1970), p. 74.} Nono's aspiration "è quella di poter far musica per investire strade, piazze, campi, istituzioni, unitamente alla classe operaia e contadina in lotta"\footnote{\textit{Ibid}, p. 76.} and in view of this it was rumoured that he was none too pleased when Josephine Nendick sang La fabbrica illuminata in a bourgeois temple of art, the Elizabeth Hall, in November 1970.\footnote{Adrian Jack, "Kagel and Nono," \textit{Music and Musicians}, XX (August, 1972), p. 63.} In taking La fabbrica illuminata to the workers, Nono has at times encountered negative response, nevertheless he points out also that "altri ancora mi hanno detto di aver preso coscienza, proprio ascol-
tanto questo lavoro, dello stato di alienazione in cui essi si trovano, diventati come die robot."  

In 1965 Nono collaborated with Peter Weiss and Erwin Piscator on the documentary play Die Ermittlung dealing with the trial of Nazi guards. From this work came Ricorda cosa ti hanno fatto in Auschwitz, for electronic tape only, created in Milan.  

Nono's next composition A floresta é jovem e chea de vida was completed in 1966 and given its première performance in Venice on September 7 of that same year. It is scored for soprano, clarinet, speaking voices, copper sheets to be struck and manipulated in various ways by the percussionists, and electronic tape. Dedicated to the National Liberation Front of Vietnam, this work directly attacks the United States for its part in the war in Vietnam. The polyglot text is derived from eleven different sources including statements of Italian workers, Fidel Castro, Patricie Lumumbo, Nguyen Van Troys, North and Latin American resistance fighters, Vietnam partisans and Karl Marx. To this is added a list, published originally by Herman Kahn in the April 1965 issue of Fortune magazine, in military terminology, of the forty-four steps involved in  

escalating a war. A floresta é jovem e cheia de vida concludes with the following quotation from an appeal by the American Committee for the Cessation of the War in Vietnam:

America is at War.
Thousands of Vietnamese die fighting against the Americans for the right to their freedom.
America has feared for a hundred years to give votes to the Negroes,
fears to give the vote to the South Vietnamese.
America bombs, burns, tortures,
Here is a world where lies become truths
where war is freedom
pain is peace
murder is honor.

Somewhat paradoxical is the fact that the massive text of this work, a protest against the continuation of the Vietnam war, is according to several reviewers who were at the première in Venice, for the most part unintelligible.

Completed in 1967, Per Bastiana Tai-Yang Cheng for an orchestra divided into three differing instrumental groups and electronic tape was composed to celebrate the birth of Nono's second daughter Bastiana. It was commissioned by The Toronto Symphony and received its première performance in Toronto on October 31, 1967. This work, the title of which can be translated "For Bastiana the Sun Rises," is based, according to a note in the score, on the Chinese folksong

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"The East is Red Glow" and surprisingly enough neither the folksong derivation nor its implied political connotations are evident in the music. As a copy of *Per Bastiana Tai-Yang Cheng* was not available at the time of this study, the following quotation, which presents a general description of the work by S. Keats, is included.

While the instrumental scoring indicates that this is an aleatory work, Nono has left very little to chance. The make-up and arrangement of the three instrumental groups, the seating of each player, the locations of the speakers for the tape, as well as the pitch, duration, and dynamic limits within which each player is to improvise, are all accounted for. The semi-circular seating arrangement, with speakers dividing the three instrumental wedges, clearly indicates a concern on Nono's part for the stereophonic possibilities of sounds originating in different locations. This spatial concept is basic to the work; part of its point is the variety and contrast possible from a three-dimensional aural approach. For Nono, it would appear, has conceived this as music of sensation, as an aural, rather than an intellectual or aesthetic, experience.

The instrumental parts are predicated on a quarter-tone basis, and every player is instructed to avoid definite chromatic pitches in his improvisatory patterns. To further insure a quarter-tone texture, and to make it easier for the players to avoid outspoken chromatic pitches, Nono further specifies the tuning for each string player. Everybody tunes in fifths as usual, but the fifths are based on varying fundamentals, a quarter tone above or below the normal 440-A tuning.

Assuming that this passage is correct in its content, it is

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65 Ibid.
interesting to note that Nono has in his compositional development arrived at the point where he is now employing the same technique, the "chance element," that he once criticized both in his lecture in Darmstadt and in the article "The Historical Reality of Music Today."

Contrappunto dialettico alla Mente for soprano, four speaking voices, chorus and electronic tape, was composed in 1968 and dedicated to Douglas Bravo, the leader of National Liberation Front in Venezuela. In the following year, Nono, in addition to writing Musiche per Manzu for a documentary film on the famous sculptor, created a vast two-part work for voices and electronic tape. The first part Un volto, del mare employs as its text poetry by Cesare Pavese while the second, Non consumiamo Marx, utilizes writings which appeared on the walls of Paris in May of 1968.

In 1970, Nono completed two compositions: Y entonces comprendio, for women's voices, chorus and electronic tape, which has as its text poems by Carlos Franqui; and Voci destroying muros, for four solo sopranos, sixteen choral voices and an orchestra with four each of flutes, clarinets, horns,

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trumpets, violas and cellos with two percussionists, which is based on texts by women in the resistance movement. At the première performance of Voci destroying muros on June 25, 1970 in Amsterdam, the eight sopranos and eight contraltos of the chorus were placed around the hall enclosing the audience, each on a platform with a microphone, while the four soprano soloists moved around the hall "sometimes acting roles and sometimes delivering their texts with dramatic emphasis." This work is divided into four episodes with the first dedicated to Rosa Luxemburg, the second to the Dutch resistance fighters Hannie Schaft and Riek Snel, the third to the Cuban fighters Haydee Santamaria and Celia Sanchez and the fourth presenting texts by Italian female fighters.

In the following year, Ein Gespenst geht um in die Welt, for solo soprano, chorus and orchestra, was completed. It was commissioned by the Westdeutschen Rundfunks and given its première performance on February 11, 1971 in Cologne. This work was, according to the composer's notes published with the score, "inspired by the Communist Manifesto by K.

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Marx and F. Engels\(^{68}\) and is dedicated to Angela Davis, Bobby Seale and Ericka Huggins. The text includes excerpts from *Die Internationale*, *Bandiera rossa* and *The East is red* as well as writings of Haydee Santamaria and Celia Sanchez on the battle at Moncada which in Nono's words was "the beginning of the victorious armed fight in Cuba."\(^{69}\) In 1972, Nono completed *Como una ola de fuerza y luz* for soprano and piano soloists, orchestra and electronic tape and it was first performed in Milan on June 28 of that same year. This composition takes its title from a poem by the Argentinian Julio Haasi and is dedicated to Luciano Cruz, the twenty-seven year old Chilean revolutionary who died in mysterious circumstances in 1971 and was, according to a program note, Nono's personal friend.\(^{70}\)

In recent years Nono has done a considerable amount of travelling, including several trips to Latin America. In an interview with Leonardo Pinzauti he brings up the fact that his experience in Cuba has had a profound effect on his musical output, stating that "a Cuba - dove ho avuto rapporti con


\(^{69}\) *Ibid*, p. ii.

uomini di governo, con guerriglieri, con contadini, con studenti, con ragnazzi - il mio modo di comunicare era diverso, senza le barriere dalle quali siamo qui ritardati (cioè categorie estetiche, stratificazioni condificate, ecc.) was later that "dove c'è una classe operaia in situazione di lotta - non di consumismo, di goduria, ecc. - io ho trovato una freschezza di comunicazione, negativa o positiva, autentica e diretta." In spite of this "freschezza di comunicazione" in Latin America, Nono still makes his permanent residence in Venice at Giudecca 882.

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72 Ibid, p. 79.
CHAPTER II

LIEBESLIED

Liebeslied, for chorus, harp, vibraphone, glockenspiel, five suspended cymbals and timpani, was composed at Darmstadt in 1954 and dedicated by Nono to his wife, Nuria, a daughter of Arnold Schönberg. This relatively short work, with a playing time of approximately six minutes, was not given its first performance until April 16, 1956. The première was held at Broadcasting House in London where Liebeslied was included in a concert of contemporary music by the B.B.C. Chorus.

It should be mentioned that several writers including Armando Gentilucci and Luigi Pestalozza have pointed out that considering its importance in the development of Nono's music, Liebeslied merits more attention than it has heretofore been given. In comparison to some of his later compositions

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including *Il Canto sospeso* and *Varianti* which are highly complex, Nono has made *Liebeslied* in the author's opinion relatively accessible not only to the performer but to the listener and analyst as well.

The text of *Liebeslied* was written by Nono. The disposition of its verses plays a significant role in determining the musical form of the composition and also, as will be seen later in this discussion, the organization of pitch. Following the form of the text, *Liebeslied* is divided into three main parts: Section I, measures 1 to 33; Section II, measures 34 to 69; Section III, measures 70 to 74. These three sections, separated by double barlines, are contrasted by differing metres and tempi. The text is presented in a straightforward manner, that is, it is stated completely in the original order which is in contrast to several of Nono's later choral works in which only selected syllables of the text are employed. In this composition each line of text is stated clearly and distinctly and furthermore, Nono has used the line division of the text to create smaller, distinctive musical segments within each of the three principal sections, resulting in the following scheme:
<table>
<thead>
<tr>
<th>Section</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Erde bist Du 1-9</td>
</tr>
<tr>
<td></td>
<td>Feuer Himmel 9-29</td>
</tr>
<tr>
<td></td>
<td>ich liebe Dich 29-33</td>
</tr>
<tr>
<td>II</td>
<td>mit Dir ist Ruhe 34-42</td>
</tr>
<tr>
<td></td>
<td>Freude bist Du 42-52</td>
</tr>
<tr>
<td></td>
<td>Sturm 52-65</td>
</tr>
<tr>
<td></td>
<td>mit mir bist Du 65-69</td>
</tr>
<tr>
<td>III</td>
<td>Du bist Leben 70-72</td>
</tr>
<tr>
<td></td>
<td>Liebe bist Du 72-74</td>
</tr>
</tbody>
</table>

These smaller segments are defined by contrasting textures, dynamic levels and in several instances, rhythmic patterns.
Example 1. Nono, Liebeslied, measures 43-55. 

5Every musical score presented in this paper is in concert pitch.
The above passage presents one such example where the setting of the line "Freude bist Du" is contrasted to the setting of the following line "Sturm."

Not only does the text setting determine the overall scheme of Liebeslied with the division into three main sections and smaller segments but it also has influenced the form of the third and final section. At the suggestion of the text "Du bist Leben/Liebe bist Du", Nono creates a small mirror structure, the construction of which will be discussed later in this chapter. In this final section of Liebeslied, there is found one of the earliest and most significant examples of Nono's use of the palindrome, a device which assumes great importance in the organization of his later works, including Canti per tredici (1954/1955), Incontri (1955), Il Canto sospeso (1955/1956) and Varianti (1956/1957).

In a discussion of Nono's serial technique, Roman Vlad states "La sua emancipazione dai modelli viennesi comporta a volte anche delle semplificazioni, nel senso di un allentamento, se non dei procedimenti seriali, perlomeno della norma che impone la perpetua applicazione di tali procedimenti al totale cromatico." This term "allentamento" appears most appropriate.

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when considering the serialization of pitch in *Liebeslied*. In contrast to his earlier works where the "traditional" Viennese twelve-tone technique is still in evidence (for example in *Variazioni Canoniche* (1950) in which the pitch series from Arnold Schönberg's Opus 41 is employed and also *Polifonica-Monodia-Ritmica* (1951)), *Liebeslied* presents one of the first examples of what is to be in Nono's music the gradual degeneration of the original purpose and technique of the tone row. Instead of a fixed twelve-tone series, Nono uses various permutations of the notes in sections of the chromatic scale. There is, in reality, no longer a "series" in the traditional sense but rather merely a regulator to ensure an even distribution of the various selected pitches. Commenting on this "allentamento," Luigi Pestalozza states that "il totale cromatico non era stato nè sarà per Nono una norma imperativa."  

For the first thirty-two measures of Section I there appear only five different pitches: E flat, A flat, G, B and E natural.

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As can be seen from the above example, rather than a strict ordering of tones Nono employs a free continuous permutation of these five pitches. These successions of notes include at several points, short mirror or palindromic segments. Nono's deviation from the classical Viennese Zwölftonsystem is also revealed through his frequent use of both unisons and octaves, as illustrated in the following example.
It should be pointed out that although there is a more or less even distribution of these five pitches within the section, Nono does not hesitate to emphasize at several points, certain specific note combinations. A good illustration of this can be seen in measures 12, 13 and the beginning of 14, where, in order to create a series of imitative entries, only three pitches, E, E-flat and B, are employed.

In the last measure of Section I which can be found in Example 4, there appears a sixth pitch, A completing the hexachord and emphasizing the word "Dich". After a long
continuous repetition of five notes, this new note has a
most notable effect, assuming a cadential value.


This note is further emphasized by the dynamic level of forte
and the octave doublings.

In the second section of the work, measures 34 to 69,
there is found a new spazio armonico. In bars 34 to 67, the
following set of five pitches is employed: C, D, F, B-flat
and D-flat. The technique of pitch presentation is the same
here as was employed in the previous section. There is a
continuous permutation of these notes until measures 68, where
a new pitch, F-sharp, is introduced, completing the second hexachord emphasizing the word "Du". This sudden appearance of a new tone has the same dynamic cadential effect as was the case in measure 33 of Section I. It should be pointed out that in Section II there is one note presented which does not coincide with the spazio armonico.

In measure 65, presented in the above example, there appears a B-natural. As this is the only exception to the pitch organization of the first two sections, it is possible that there was an error in the publication of the score and that this note was intended by Nono to be B-flat.

The third and final section of *Liebeslied*, which presents the last two lines of the text, is quite brief, being merely five measures in length. This part has been referred to by at least one writer as resembling a *coda*. Luigi Pestalozza has stated that "un'ulteriore pausa porta all'ultima strofa di due versi, e quindi alla terza parte del lavoro che è una sorta di 'coda' di appena cinque battute."\(^8\) Although there are hardly sufficient reasons to consider this section as being a *coda* it should be pointed out that there are certain distinct references to the pitch organization found in the previous two sections. As can be seen in Example 6, the first three measures of this final section (measures 70 to 74), present five of the notes employed in Section I, that is, E-flat, A-flat, G, E and A, with only note #4, B-natural, being omitted. The last two bars contain four notes which were employed in Section II, that is, D, F, D-flat and F-sharp, with notes #7 and #10, \(^8\)Ibid.
C and B-flat respectively, being omitted.

Another similarity in pitch organization between Section III and the previous two sections is that the same pitches are emphasized. The final notes of Sections I and II, A and F-sharp respectively, are also prominent in the last section. The A, note #6 from Section I, is the only note presented in measure 72 as well as being the centerpoint of the section, while F-sharp, note #12 from Section II, has a significant position in the soprano and alto line in the last measure of the piece.

In a discussion of the text of *Liebeslied*, Pestalozza has suggested that there is a correspondence between the meter of the lines of text and the organization of the pitches employed in the setting of those particular lines. He stated:

Ma è piuttosto stimolante osservare come, per esempio, nel *Liebeslied* si stabilisca una corrispondenza fra la metrica dei versi e le serie: il primo verso di quattro sillabe assume nel coro quattro note della prima serie mentre affida la quinta ai timpani; la seconda serie sul verso iniziale della terza strofa, che è di cinque sillabe, l'espone in coro in un rapido squarcio a cappella....

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This concept of relating the metrical arrangement of the verses to the organization of pitch provides a possible explanation of the pitch organization found in Section III. As the last two lines of the text of Liebeslied each contain four syllables, Nono may have decided to employ only four different pitches of the possible six in each of these two choral passages. In should be pointed out that, although the organizational technique suggested by Pestalozza may be considered in looking at this brief section or at the two examples cited in his quotation, this concept is by no means employed consistently in Liebeslied and these relatively isolated examples are not sufficient justification to consider that Nono consciously employed this organizational method.

As mentioned previously, the third section consists of a small palindromic structure. Here there is a complete change in texture as, in contrast to the earlier sections, the writing is strictly homophonic in nature. This block movement presents the following succession of note durations:
This duration pattern clearly displays palindrome symmetry. It is interesting to note that the palindrome suggested by the text coincides with the duration palindrome.

Possibly the most complex organization of the palindrome structure of Section III can be seen in examining the intervallic relationships, both vertical and horizontal, between the two two-measure choral passages and also investigating their relationship to the central point of the construction, that is, the single note of the timpani in measure 72. In these two choral passages, in order to obtain pitch organizations which, as already discussed, refer back to those of the previous two sections, Nono at measure 73, rather than merely stating an exact retrograde of the pitches found in measure 70 to 72, presents the entire retrograde passage transposed one whole tone down. As a result, there is, instead of a pitch palindrome, a palindrome of intervallic
relationships. In examining the following diagram which shows the intervals formed by the notes of these two choral segments, it will be noticed that there is not merely one palindrome of intervallic relationships involved but several.
Figure 1.— Interval Palindromes in Liebeslied

Measures: 70  71  73  74
In this diagram there are four palindrome structures presented. Palindrome number 1 illustrates the mirror ordering with respect to interval content of the six vertical structures. The intervals within each of these six vertical structures are also arranged in a mirror pattern as pointed out in palindrome number 2. An example of this can be seen in examining the first vertical structure of measure 70 where the interval arrangement is:

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minor 2nd
Perfect 4th
minor 2nd
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The palindromes numbered 3 and 4 are a direct result of the ordering of the previous two. Palindrome number 3 illustrates the relationship of the intervals which separate the six vertical structures. In discussing this palindrome structure it should be noted that although the interval content is strictly mirrored, the interval direction in the retrograde half of the palindrome is a reversal of that found in the first half which is obviously due to the fact that the entire second choral passage is a retrograde of the first transposed down one whole tone. As a result of the mirror ordering shown by palindrome number 2, the Soprano and Bass lines have the same interval content and likewise the Alto and Tenor lines have the same
interval content, as illustrated by Palindrome number 4.

Possibly the most significant structural aspect noted in this work, considering the place of Liebeslied in the development of parametric organization as found in the compositions covered by this study, is that of polytimbral continuity. As was previously mentioned in the Introduction where the term "polytimbral continuity" was originally defined,¹⁰ this technique, which could be considered to have developed from Klangfarbenmelodie, consists essentially of a continuous line of sound which has a consistently varying timbre. In contrast to the Klangfarbenmelodie technique where there are often brief periods of silence as would be the case in any other form of melodic line, with polytimbral continuity, as found in the compositions studied in this paper, there are for the most part no stoppages but rather a continuous stream of sounds. An excellent illustration of the polytimbral continuity found in Liebeslied can be noted in the following example.

¹⁰See pp. 2-4.

In Example 7, there is an uninterrupted movement of the melodic line from one voice to another. Certain notes of this line are frequently doubled in unison and/or at the octave by one or more additional voices. Through this frequent employment of
unison and octave doublings, Nono is able to expand what is in fact a single melodic line to a setting of extremely varied timbre and texture. If the doublings of Example 7 are reduced to single notes, the following melodic line would result:


In viewing the above illustration it should be noted that when the octave doublings of measures 22 to 25 were omitted, it was according to the arbitrary decision that the note chosen would be that which was closest to the preceding note of the melodic line. In order to maintain the concept that where the technique of polytimbral continuity is employed the score can be reduced to a single melodic line, it is obviously essential that with each of these doublings the notes employed not only duplicate the pitch but also share a common duration.
Although Nono usually follows this practice quite strictly, it should be mentioned that at several points throughout *Liebeslied* there are exceptions to this practice. These will be discussed at greater length later in this chapter.

Although the technique of polytimbral continuity appears to be relatively obvious to one who studies the score of *Liebeslied*, no writer up to now has examined this feature in any great detail. Interestingly enough, Armando Gentilucci in discussing this composition mentions briefly a melodic line which moves from voice to voice, stating "la 'casta monodia che trascolora passando da una voce all'altra, secondo una grafia già rintracciabile in certo Dallapiccola." However he merely notes its existence and presents a short example illustrating it rather than investigating the extent and significance of its application. Gentilucci does make a point of noting the similarity of this "casta monodia" to a technique found in several passages of certain compositions written by Luigi Dallapiccola. For example, on the first page of the score to Dallapiccola's *Canti di liberazione* there can be found a melodic line which displays features common to those of the polytimbral continuity presented in *Liebeslied*.  

Although there is not a continuous employment of the technique of polytimbral continuity throughout *Liebeslied*, it is certainly predominant in both Sections I and II. Nono's use of this technique is consistent within a segment created by the setting of an individual line of the text. When polytimbral continuity is involved within one of these segments it is employed in a relatively strict manner with very few irregularities. There are, however, irregularities at certain points, all of which involve the note doublings of the "casta monodia". These irregularities fall into three categories which are illustrated in the following example.

**Example 9. Irregularities of Note Doublings Within Polytimbral Continuity.**

(a) Duration  (b) Pitch  (c) Duration and Pitch
Example 9 (a) presents an illustration of the irregularity of note duration which is a direct result of Nono's choice of instrumentation at that time. Although both notes in question start at the same time, the harp's lack of sustaining ability would have made it impractical to write a single tone with the same length as that presented by the suspended cymbal. It appears from this example that Nono does not consider it necessary to slavishly follow the concept of polytimbral continuity as this irregularity could have been easily avoided by changing the instrumentation. Examples 9 (b) and (c) also illustrate what appears to be a deliberate effort by Nono to interrupt, if only for an instant, the effect of polytimbral continuity. These irregularities in note doubling do not appear very frequently throughout the composition. From the following chart it can be determined in which segments the technique of polytimbral continuity is employed and also where in Liebeslied these irregularities can be found.
# Figure 2: Polytimbral Continuity in *Liebeslied*

<table>
<thead>
<tr>
<th>Measures</th>
<th>Text</th>
<th>Description of Technique</th>
<th>Irregularities</th>
<th>Type of Irregularity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-9</td>
<td>Erde bist Du</td>
<td>Free</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-29</td>
<td>Feuer Himmel</td>
<td>Polytimbral Continuity</td>
<td>measure 13</td>
<td>Duration and Pitch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>measure 26</td>
<td>Duration</td>
</tr>
<tr>
<td>29-33</td>
<td>ich liebe Dich</td>
<td>Polytimbral Continuity</td>
<td>measure 29</td>
<td>Duration and Pitch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>measure 30</td>
<td>Duration and Pitch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>measure 32</td>
<td>Duration</td>
</tr>
<tr>
<td>34-42</td>
<td>mit Dir ist Ruhe</td>
<td>Polytimbral Continuity</td>
<td>no irregularities</td>
<td></td>
</tr>
<tr>
<td>42-52</td>
<td>Freude bist Du</td>
<td>Polytimbral Continuity</td>
<td>measure 46</td>
<td>Duration and Pitch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>measure 49</td>
<td>Pitch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>measure 50</td>
<td>Pitch</td>
</tr>
<tr>
<td>52-65</td>
<td>Sturm</td>
<td>Brief Suggestion of</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polytimbral Continuity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65-69</td>
<td>mit mir bist Du</td>
<td>Polytimbral Continuity</td>
<td>measure 68</td>
<td>Duration</td>
</tr>
<tr>
<td>70-72</td>
<td>Du bist Leben</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72-74</td>
<td>Liebe bist Du</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In examining further the irregularities pointed out in this chart, it can be found that several of these have features in common. In the following example the three note doublings in which there is durational irregularity are presented.

Example 10. Irregularities of Duration in Note Doublings.

(a) Measure 26  

(b) Measures 31-33

(c) Measures 68-69
Each of these irregularities involve the employment of the harp, an aspect of envelope which was previously discussed. Example 11 illustrates the irregularities found in the fifth segment, that is, measures 42 to 52.

As can be seen above, these three irregularities in note doublings all involve the same two pitches, that is, C and C-sharp, which certainly discounts any possibility of an error in publication.

In each of the segments of the chart that contain polytimbral continuity, Nono has employed this technique in a relatively strict manner. It should be pointed out, however, that in the sixth segment, that is, measures 52 to 65, although there is not a single, continuous melodic line which moves from one voice to another throughout, certain features of polytimbral continuity are evident.

In examining the above example, it can be seen that from measures 52 to 57 a single line can be traced through the score. However, during this passage there are many other notes which are not accounted for via the technique of polytimbral continuity. From measure 52 on, it becomes increasingly more difficult to determine which of the many notes present could be considered as part of this single, continuous melodic line.

Although the parameter of dynamics in this composition is not organized according to the concepts of serialism, an examination of the employment of dynamic markings does expose a technique of presentation that will prove significant when considering the parametric organization of the later works covered by this paper. In *Liebeslied*, the dynamic indications
are employed in conjunction with the technique of polytimbral continuity. In studying segments 2 through 7 in which polytimbral continuity is employed, it can be seen that when a note of the "continuous melodic line" is doubled, the same dynamic marking is also employed. A good illustration of this can be found in the following example.


As a result of the consistent application of this technique, the dynamics can be reduced to a single line of markings which in turn supports the main concept of polytimbral continuity. There are instances in Liebeslied where either a gradual crescendo or decrescendo covering a span of several notes occurs and within this passage only one of the notes is doubled.

As can be seen from the above example, Nono, in order to comply with the concept of a single line of dynamics, gives these doubled notes the value approximate to that of the dynamic found within the crescendo and decrescendo at that particular time. Although this technique of presenting dynamic markings is employed in a relatively strict manner throughout *Liebeslied* in segments where polytimbral continuity is consistent, irregularities do occur in measures 26, 31 and 32. This technique of employing in *Liebeslied*, dynamic levels in accordance with the single continuous line of polytimbral continuity gains even more significance when it is discovered that the complex serial organization of dynamics in *Il Canso sospeso* is also closely related to the lines of polytimbral continuity.

Although the parameter of duration in *Liebeslied* is not strictly determined by an overall organizational system, there
are certain aspects which would tend to suggest that Nono has carefully predetermined which durations are to be employed within each segment. If the sixteenth note is considered the basic duration, the following chart, in which the numbers represent multiples of this basic duration, presents the durations employed within each segment of the composition.

\[ \text{\textsuperscript{13}} \]

\textsuperscript{13} A term defined in the Introduction.
Figure 3.— Note Durations Employed Within Liebeslied

<table>
<thead>
<tr>
<th>Sections</th>
<th>Segments</th>
<th>Measures</th>
<th>Multiples of the Basic Duration</th>
<th>Irregularities</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1</td>
<td>1-9</td>
<td>3, 4, 6, 10, 20</td>
<td>One duration of 17 found in measure 3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>9-29</td>
<td>1, 2, 3, 4, 6, 8, 9, 10, 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>29-33</td>
<td>3, 4, 6, 10, 16</td>
<td>An irregularity in note doubling results in a multiple of 2 in measure 29</td>
</tr>
<tr>
<td>II</td>
<td>4</td>
<td>34-42</td>
<td>1, 2, 3, 4, 6, 7, 10, 14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>42-52</td>
<td>1, 2, 4, 5, 6, 7, 10, 14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>52-65</td>
<td>1, 2, 3, 5, 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>65-69</td>
<td>2, 4, 6, 8, 10 (last note only) 18</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>8</td>
<td>70-72</td>
<td>6, 8, 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>72-74</td>
<td>6, 8, 10</td>
<td></td>
</tr>
</tbody>
</table>
Possibly the most obvious feature discovered in looking at this chart is that in several segments only five different durations are employed. This number has an added significance when one remembers that the basic spazio armonico of both Sections I and II consists of five different pitches. Segments 1, 3 and 6 are each based primarily on five different durations although there is a brief irregularity, as stated in the chart, in both segments 1 and 3. Segment 7 is also, for the most part, constructed of five various durations. With the last note of this segment a new duration appears which appropriately coincides with the appearance of the sixth pitch of Section II. In comparing the durations employed within each of the first three segments which make up Section I, a certain similarity becomes apparent. The five durations (3, 4, 6, 10 and 20) which are used in segment 1 are also found in the second segment employed in combination with four new durations. The durations of segment 3 clearly refer back to those of the first segment. These two passages have four durations (3, 4, 6, and 10) in common, with the only exception being the fifth duration which in segment 1 is 20 while in segment 3 it is 16. This method of durational organization in Section I, with the multiple content of segment 3 being so close to that of the first segment, could possibly be considered yet another example of Nono's frequent employment of the
palindrome.

Evidence can also be found in the second section to support the theory that Nono has carefully predetermined which duration multiples are to be employed within each segment. The multiple content of the first two segments of Section II is very similar, with the only irregularity being that multiple 3 from segment 4 is repeated by the multiple 5 in the fifth segment. In comparing the durations employed in segments 6 and 7, an obvious contrast is apparent as the seventh segment is based on a multiple series of even integers while the sixth segment is based, with the exception of the multiple 2, on a series of odd integers. This series from segment 6 represents the first five terms of the infinite series of prime numbers, that is, numbers without integral factors.

This aspect of an isolated number series employed within Liebeslied may appear to be more significant, however, after considering Nono's frequent employment of specific infinite series in later works covered by this study, including Il Canto sospeso in which the Fibonacci Numbers are utilized. This utilization of the series of prime numbers in Liebeslied, is one of the earliest examples of a practice which becomes more extensive with subsequent compositions.

Although it is apparent that Nono has selected the

\[14\] See Chapter IV.
durations in order to contrast the multiple series of one segment from that of another, it should be mentioned that there are two durations both of which are used in each segment of *Liebeslied* with the exception of segment 6. These two durations are represented by the multiples 6 and 10. This has even greater significance when it is remembered that there is a distinct change of meter between Sections I and II, from the simple meter of 4/4 to the compound meter of 6/8. Nono has employed these two durations throughout the piece in spite of the marked change from a duple division of the beat to a triple division. The duration multiples remain the same with respect to the basic duration of the sixteenth note however the notation of these notes is obviously altered.

In examining the final notes of both Sections I and II, one can see a good illustration of how Nono has related this organization of durations to the pitch organization discussed previously. The note durations represented by the multiples 16 and 18 are employed only once each in *Liebeslied* and this occurs at the end of Sections I and II respectively. This coincides perfectly with the only appearance of the pitches A natural in Section I and F sharp in Section II.

After an examination of the durations in the line of polytimbral continuity, it is safe to say that there is no consistent application of serial organization with respect to
the multiple event parameter of rhythm within Liebeslied. The duration multiples of Figure 3 are not strictly organized within each segment but rather they are stated with continuous permutation in a manner which is extremely similar to the method of pitch presentation discussed earlier in this chapter. However at one point in Liebeslied, Nono repeats a rhythmic pattern which was employed previously in the composition. This can be seen in comparing the lines of polytimbral continuity in measures 11 to 15 with that found in measures 17 to 21.
The two passages marked in the above example are constructed on the same rhythmic line which, in terms of multiples of the basic duration \( \text{\texttt{\textdagger}} \) , is represented by the following number series: 10 - 3 - 10 - 10 - 6 - 4 - 1 - 6 - 6.

In reviewing the information presented in this chapter it is apparent that one of the most significant factors in the organization of Liebeslied is the importance given by Nono to the text. The text influences not only the overall form of the piece, that is, its division into three principal sections, but also the segmentation found within each of these sections resulting from Nono's setting of the individual lines of the text. In addition, the metrical arrangement of the text influences the organization of pitch. Possibly most important is that at the suggestion of the text a palindrome is employed in the third section. Liebeslied is one of Nono's earliest works in which he has used the palindrome and as has already been pointed out, this technique plays a significant role in the organization of the composition. The palindrome is used even more extensively in later compositions covered by this study.

The study of pitch organization in Liebeslied has uncovered one of the first examples of what is to be in Nono's music the gradual degeneration of the original purpose and technique of the tone row. With the various permutations of
the notes found in sections of the chromatic scale there is no longer a "series" in the traditional sense but rather a means of ensuring more or less even distribution of the various selected pitches. Nono has employed this method of continuous permutation not only in connection with pitch but also in the presentation of duration. Specific duration multiples have been chosen by the composer for employment within each segment and these multiples are likewise continually varied.

Possibly the most important structural feature noted in *Liebeslied* in considering the place of this work in the development of parametric organization as found in the compositions covered by this study, is that of polytimbral continuity. *Liebeslied* presents polytimbral continuity in its earliest and least complex form. Although the parameters in this work are not determined according to an overall serial system, the basic concepts of polytimbral continuity are evident and one can see how the parameters of pitch and dynamics are linked to the presentation of this technique.
CHAPTER III  
CANTI PER TREDICI AND INCONTRI

After finishing Liebeslied, Nono worked on two new compositions during 1954 and early 1955. Canti per tredici was the first to be completed and was given its première performance in Paris on March 26, 1955.¹ This work which is dedicated to Pierre Boulez "per la sua umanità" is scored for thirteen instruments: flute, oboe, B-flat clarinet, soprano saxophone, B flat bass clarinet, bassoon, horn in F, trumpet, trombone, violin, viola, cello and bass. Incontri was commissioned by the Südwestfunks of Baden-Baden and completed in Venice in 1955. This composition, for a chamber orchestra containing two flutes, two oboes, two B-flat clarinets, two bassoons, two horns in F, trumpet, trombone, two timpanists, four violins, two violas, two cellos and two basses, was first performed on May 30, 1955 at Darmstadt with Hans Rosbaud conducting.² As these two works were created chronologically within such close proximity and, more importantly, as the compositional techniques employed in their


²Ibid.
construction bear certain obvious similarities to one another, each aspect of parametric organization to be discussed in this chapter will be examined as it applies jointly to both Canti per tredici and Incontri.

While in Liebeslied the palindrome is evident in several phases of organization, this mirror technique becomes even more structurally significant in Canti per tredici and Incontri where it is applied to overall form. Canti per tredici consists of two movements both of which have the structure of a complete palindrome. These two movements are separated by a measure of silence at measure 173 and the following diagram further defines their form:

\[\begin{array}{c}
\text{A} \rightarrow \leftrightarrow \text{A} \\
\text{B} \rightarrow \leftrightarrow \text{B}
\end{array}\]

<table>
<thead>
<tr>
<th>Measures</th>
<th>1-86</th>
<th>87-172</th>
<th>174-263</th>
<th>264-354</th>
</tr>
</thead>
</table>

The mirror structure of the first movement is not perfect as can be seen in Example 1 which presents the center four measures of the movement; note the dynamic and timbral changes.
The presentation of most parameters in the second half is an exact retrograde of that found in the first half of the movement, however, this is not the case with the variables of dynamics and timbre which are found altered in the last half of the section.

The form of the second movement is that of an exact palindrome with the only irregularity being the addition of an extra measure at the end of the piece at which point specific notes from the previous measure are held over. The following example contains the central point of this mirror structure.
Example 2. Nono, Canti per tredici, measures 261-264.
In presenting the retrograde, Nono is very accurate in creating a mirror image as every parameter is precisely reversed.

The overall form of *Incontri*, a relatively short one movement work, 217 measures in length, is a complete palindrome. In the middle of measure 109 which can be seen in Example 3, an exact retrograde of all material presented up to that point begins.
As was the case with the second movement of Canti per tre deci, the parametric ordering in the second half of Incontri is a precise reversal of that found in the first part.

The first half of Incontri is divided into three principal sections by means of fermatas, these occurring again in the retrograde half of the composition which results in the following formal pattern.

Sections: A → B → C ← C ← B ← A

There is however one irregularity in the fermata placement. While the fermata which separates section A from section B in the first part of the work is found on the last note of section A, the corresponding fermata in the retrograde presentation occurs in the double barline which divides the two sections (measures 169 and 170).

Since the technique of polytimbral continuity is consistently employed in just one movement, the second, of Canti per tre deci, only this movement will be examined. The organization of the parameter of pitch in this movement is quite similar to that found in Incontri. As mentioned in Chapter II, in contrast to Nono's earlier works where the "traditional" Viennese twelve-tone technique is still in evidence, Liebeslied presents one of the first examples of what is to be in Nono's
music the gradual degeneration of the original purpose and technique of the tone row. An analysis of the pitch ordering in *Canti per tredici* and *Incontri* will further illustrate Nono's movement away from the serialization of this parameter.

The tone row employed in the second movement of *Canti per tredici* has an intervallic structure which is to be found in a number of Nono's later works including *Il Canto sospeso* and *Varianti*. As John S. Weissmann in his article "Luigi Nono und sein Werk" has stated "Nono zeigt eine entschiedene Vorliebe für symmetrische Reihen, die zugleich auch Allintervallreihen sind." The Allintervallreihen of *Canti per tredici* is as follows:

1 2 3 4 5 6 7 8 9 10 11 12
A B⁰ A⁰ B G C F# C# F D E E⁰

In discussing this series construction, Weissmann comments that "Aus den Besonderheiten der Intervallverhältnisse der Reihe ergeben sich auch die weiteren Möglichkeiten, die ihre beiden Hälften darbieten: die chromatischen Skalen, die von beiden Seiten gegen ein 'tonales Zentrum' konvergieren, wie oben ersichtlich." A further symmetry can be seen when the intervals of the row are reduced by interval inversion:

---

4 Ibid.
Upon viewing the above diagram, it becomes obvious that a palindrome relationship exists in the intervallic structure of the pitch series.

The tone row is employed in Canti per tredici in such a manner as primarily to ensure a relatively even distribution of the pitches. Throughout the first half of the second movement, the complete series, in its original form, is constantly repeated with the pitch appearance always corresponding to the ordering of the row. A good illustration of this method of presentation can be found in Example 4.
Nono does not utilize variables of the "classical" Zwölfton-system such as transposed, inverted or retrograde forms of the row. While, in the second half of the movement, reversed ordering of pitches is at times present as the result of the overall formal palindrome structure, for the most part the series is not retrograded in the correct order of appearance due to the fact that the rhythmic patterns of the first half, when repeated backwards, alter the placing of the pitches.

In the first half of the movement, the only irregularities which occur in this strict presentation of the 29 3/4 pitch-row statements are the omissions which are listed on the following table:

### TABLE 1

**PITCH OMISSIONS FROM ROW STATEMENTS IN THE FIRST HALF OF THE SECOND MOVEMENT OF CANTI PER TREDICI**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pitch</th>
<th>Pitch Number</th>
<th>Statement Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>177</td>
<td>F#</td>
<td>7</td>
<td>2</td>
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<tr>
<td>179-180</td>
<td>C</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>193</td>
<td>G#</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>195</td>
<td>F</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>197</td>
<td>B</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>200</td>
<td>A♭</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>218</td>
<td>D</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>245</td>
<td>E</td>
<td>11</td>
<td>24</td>
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<td>251</td>
<td>B♭</td>
<td>2</td>
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<tr>
<td>258</td>
<td>G</td>
<td>5</td>
<td>29</td>
</tr>
</tbody>
</table>
It should be pointed out that at the time of most of these omissions, the same pitch was held over from the previous row statement. Each of the pitch irregularities presented by Table 1 was also omitted at the corresponding point in the retrograde half of the movement which tends to suggest that these omissions were the result not of an error in printing but rather of an intentional move on the composer's part. This is supported by the more than coincidental fact that of the ten omissions no pitch was skipped more than once and that notes A and E-flat, numbers 1 and 12 respectively, of the row are the only pitches to be present in every statement of the series.

In *Incontri* the following tone row is employed:

```
1  .2  3  4  5  6  7  8  9  10  11  12
Bb  C  C#  F#  G  E  D  Eb  F  A  B  Ab
M2  m2  P4  m2  m3  M2  m2  M2  M3  M2  m3
```

Although the aspect of symmetry found in the series of *Canti per tredici* is not evident here, the tone rows of both compositions are utilized in relatively the same manner. In *Incontri* the tone row is again relegated to the position of being merely a regulator to assure an even pitch arrangement. It is used only in its original form, being constantly repeated in the first half as illustrated in Example 5.

*Incontri*

Luigi Nono

In this part, all instruments are notated as in the original.
In the first half of *Incontri* there are 40 row statements plus one additional note, B-flat, located precisely at the center of the composition in measure 109. The ordering of pitch appearance for most of these statements coincides with that of the original tone row, although there are a few exceptions. In measure 1 of Example 5, it can be seen that pitch number 6, E, appears slightly before pitch number 5, G, and this type of reversal ordering does occur at several other points in the first half of the work.

Three other types of irregularities in row presentation are also evident, the first of these being pitch omission, the only case of which appearing in measure 60, where note number 4, F-sharp is skipped. The next type of irregularity was the result of an error on the composer's part which he later acknowledged in a periodical article. At six different places in the first half of the composition, listed below in Table 2, the incorrect pitch is presented.

TABLE 2
IRREGULARITIES OF PITCH PRESENTATION
IN THE FIRST HALF OF INCONTRO

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pitch Presented</th>
<th>Pitch Needed for Row Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>C</td>
<td>C sharp</td>
</tr>
<tr>
<td>27</td>
<td>B</td>
<td>D</td>
</tr>
<tr>
<td>28</td>
<td>G sharp</td>
<td>F sharp</td>
</tr>
<tr>
<td>39</td>
<td>A flat</td>
<td>A natural</td>
</tr>
<tr>
<td>43</td>
<td>F</td>
<td>A</td>
</tr>
<tr>
<td>108</td>
<td>G</td>
<td>A</td>
</tr>
</tbody>
</table>

Each of these pitches is also found in the retrograde half of Incontri, indicating that Nono did not either notice or want to change these irregularities. In measures 82 to 89 another variation in tone row presentation occurs. Up to this point in the composition, each pitch of a series statement is presented by only one voice at a time although this voice may repeat the pitch. However, starting at measure 82 there is a series of unison pitch doublings. This technique lasts only until measure 89 and then the original method is again employed.

As was the case in Canti per tredici, no forms of the tone row other than the original are employed in the first half of Incontri. In the second half of Incontri, the series is not presented in correct retrograde; this is again the result of the rhythmic pattern utilized in the first half of the composition. With the exception of the increased number of
irregularities found in Incontri, the parameter of pitch in these two works is organized and presented according to the same method.

The quality of pointillism, found to a limited extent in Liebeslied, is employed to a much greater degree in Canti per tredici and Incontri. While in his earlier works the tone row served the purpose of motivic generation, Nono has, with these two works, utilized the single tone as his basic compositional element and abandoned totally any motivic employment. The single tone, though, is not isolated as such within the composition but rather it is related to the entire musical structure through the technique of polytimbral continuity. Each note becomes part of one of a number of continuously sounding lines of constantly changing timbre which move throughout these two works. This concept of polytimbral continuity which was presented in various segments of Liebeslied is now employed constantly throughout Incontri and the second movement of Canti per tredici with great structural significance. As mentioned in Chapter II, this compositional technique is linked closely to Klangfarbenmelodie, although what separates it from Schönberg's concept is the constructional idea. Nono's technique of a transition from a single tone to musical structure is remote from Schönberg's poetic concept of a contrapuntal-melodic flow.
While in *Liebeslied* only one line of polytimbral continuity was present at any single point, throughout *Incontri* and the second movement of *Canti per tredici* a varying number of continuous lines are employed. Each of these lines is assigned a specific basic duration. The following example presents the opening measures of the second movement of *Canti per tredici* with the four lines of polytimbral continuity marked.
In Example 6, the two blue markings indicate lines of polytimbral continuity which employ only the basic duration of $\frac{1}{3}$, that is, with a division of the unit beat into 3, while the two red markings denote lines which use the basic duration of $\frac{1}{5}$ only. As can be seen from this example, there are no breaks involved in these lines and there is not any unison or octave duplication of notes as was found in Liebeslied. Generally throughout this movement no instrument presents any more than one pitch in succession and as a result the timbre of these lines is constantly changing. It should be stressed that every note in this movement can be accounted for through the technique of polytimbral continuity. This method employed in Canti per tredici's second movement is also found in Incontri.

*Incontri*

Luigi Nono
In Example 7 which illustrates the six lines of polytimbral continuity in measures 1 to 4 of *Incontri*, the green, red and blue markings denote continuous lines employing the basic durations of $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{6}$ respectively. The employment of polytimbral continuity in this work is exactly the same as that of the previous composition except for one slight irregularity. As mentioned previously in connection with the discussion on pitch organization, from measures 82 to 89, there is a series of unison pitch doublings which does not occur at any other point in the work or in *Canti per tredici*.

Throughout both *Incontri* and the second movement of *Canti per tredici* the number of these polytimbral lines vary. Although both compositions commence with their respective maximum number of polytimbral lines, the pattern of line entrances and exits is completely different. The following diagram presents the arrangement of lines found in the first half of the second movement of *Canti per tredici*. 
Figure 4.— Arrangement of Lines of Polytimbral Continuity in the First Half of the Second Movement of Canti per tredici

Measures 174 to 213

Measures 214 to 263

Basic Durations:  \( \frac{1}{3}, \frac{1}{5} \).
In Figure 4, it can be seen that for a great deal of the first half of the movement all four polytimbral lines are present, although from measures 214 to 233, the basic duration of one of the lines is changed from $\frac{1}{3}$ to $\frac{1}{5}$. There appears to be no obvious reason for this basic duration alteration and this type of irregularity does not appear again in any of Nono's works involving polytimbral continuity. The arrangement of lines illustrated in the above figure falls into two patterns, measures 174 to 213 and measures 214 to 263, which are similar in design and characterized by an extended presentation of all four lines followed by three successive exits, leaving only one line which in both cases has the basic duration of $\frac{1}{5}$. It is interesting to note that both cases have the basic duration of $\frac{1}{5}$. It is interesting to note the more than coincidental fact that in the first half of this movement which commences in measure 174, a number of structurally significant changes take place: at measure 104, the first line disappears; at measure 214, all four lines reappear; at measure 234 there is a change in basic duration; and finally the center of the movement occurs at measure 264; all of these are separated by a multiple of 10 measures.

The organization of polytimbral lines in the first half of Incontri is definitely more complex than that of the second movement of Canti per tredici.
Figure 5.— Arrangement of Lines of Polytimbral Continuity in the First Half of Incontrì

Section A (measures 1 to 48)

Section B (measures 49 to 81)

Section C (measures 82 to 109)

Basic Durations: $=\frac{1}{6}$, $=\frac{1}{5}$, $=\frac{1}{4}$. 
As mentioned previously, the first half of Incontri is divided into three separate sections by means of fermate. These three sections, as can be seen in Figure 5, are further defined by the ordering of lines of polytimbral continuity. Although differing in length, there can be no doubt that sections A and C are directly related one to the other as section C presents an approximate retrograde inversion of the organization of lines found in the first section. Section A's pattern of a gradually decreasing number of lines (with those having the basic duration of \( \frac{1}{6} \) disappearing first) is completely inverted and reversed in the third section where the lines with the \( \frac{1}{6} \) basic duration are the first to begin. The ordering of the lines of polytimbral continuity in section B is in the form of a complete inverted palindrome with its center occurring at measure 66. While two lines having the basic duration of \( \frac{1}{6} \) are presented at the beginning, section B ends with two lines having the basic duration \( \frac{1}{4} \), and similarly, the other line entrances and exits in the first half of B are found mirrored in inversion in the second half. In considering the overall pattern of polytimbral lines in the first half of Incontri, it can be seen that, with a certain leeway being given for the difference in section lengths, this organization is based, with only slight modification, on the overall structure of an inverted palindrome. It should be pointed out that there is a
valid structural reason for the irregularity in section lengths. In studying the score it can be found that at each point where there is an alteration in the number of polytimbral lines present, Nono marks this change with a double bar-line, thus creating smaller segments within the sections. The length of these segments is determined also, as will be discussed later in this chapter, by a series of numbers which are taken from duration multiples employed in the organization of the parameter of duration.

In comparing Figure 4 and 5, it is most obvious that the patterns of organization are greatly contrasted. While in the second movement of Canti per tredici a binary division is evident, three main sections are clearly defined in Incontri. In addition to the fact that the organization of polytimbral lines in Incontri is much more complex than that of Canti per tredici, in this later work there is a symmetry of ordering which was not as apparent in the previous composition.

Nono has been most critical of the various techniques of organization applied to the parameters of duration and rhythm employed by many composers. Konrad Boehmer suggests that Nono's discontentment lies in the fact that:

Der Ton sei ein Punkt geblieben, und die Pause ein Loch zwischen den Punkten. Dauer und Abstand der Punkte, sowie Dauer der Löcher und deren Abstand voneinander seien serialisiert worden, nicht aber

Through the development and application of the technique of polytimbral continuity, Nono has been able to establish a distinct relationship between "Klang" and "Nicht-Klang."

In the construction of both Incontri and the second movement of Canti per tredici, Nono establishes a specific series of numbers which he then employs as duration multiples. The duration of a single note is determined through multiplying the basic duration by the duration multiple. Whenever polytimbral continuity is in effect the composition can be reduced down to a specific number of continuous, uninterrupted lines and so, obviously, the aspect of silence or "Nicht-Klang" in this state is non-existent. When the music is transformed back to the state presented in the completed score, the lengths of "Nicht-Klang" are controlled by the same duration multiple series as that determining the single note durations.

With both compositions, in order to determine note

duration in these continuous lines, the series of duration multiples are presented in connection with the pitch statements. When a new pitch of the tone row appears, the next duration multiple taken from its series is utilized. The basic duration of this new pitch is obviously determined by the line of polytimbral continuity to which it belongs. The following example illustrates the application of duration multiples at the opening of the second movement of *Canti per tredici*. 
In studying Example 8, it can be found that the duration multiple series corresponding to the first statement of the tone row is as follows:

Pitch Number: 1 2 3 4 5 6 7 8 9 10 11 12

Duration Multiple: 1 3 5 8 13 18 18 13 8 5 3 1

The palindrome structure of this duration multiple series is clearly evident but this is as far as the symmetry of multiple presentation goes. Although each of the remaining 28 3/4 multiple series presentations consists of numbers taken from this original series, the organization of these multiples within each statement does not coincide with any overall organizational system. In fact no two series has the same or reversed multiple ordering.

Nono's method of ordering the parameter of duration in this movement of Canti per tredici might best be described as one of continuous permutation, similar to that employed previously in Liebeslied. The organization of duration in Incontri is however more complex.

In constructing the number series to be employed for the duration multiple row in Incontri, Nono took the six different numbers from the multiple series of the previous work, that is,
1-3-5-8-13-18, and added the terms 2-4-6-10-10-16. This resulted in the twelve term duration multiple series 1-2-3-4-5-6-8-10-10-13-16-18. The technique of permutation is again involved in this work although more strict controls are placed on its use. Each of the 40 complete series statements in the first half of the work includes every one of the above twelve terms although the ordering need not be the same. This rule is for the most part followed throughout Incontri although strangely enough, there is an irregularity in the first presentation.

*Incontri*

Luigi Nono
In this first statement, 10-16-8-6-4-2-1-3-5-8-13-18, the last six terms correspond to the first six terms of the duration multiple series presented previously for Canti per tredici while the first six numbers of this Incontri presentation are the new multiples. The irregularity of this statement is that there is a duplication of the multiple 8 rather than the multiple 10 which is the case in the other multiple series presentations in the first half of the work. In examining the following table which presents the forty-one complete duration multiple series statements corresponding to the forty-one pitch row repetitions, it will become obvious that the third pitch of the first statement should have had the multiple of 10.
TABLE 3
STATEMENTS OF DURATION MULTIPLE SERIES
IN THE FIRST HALF OF INCONTRI

<table>
<thead>
<tr>
<th>No. Mm.</th>
<th>C</th>
<th>C#</th>
<th>F#</th>
<th>G</th>
<th>E</th>
<th>D</th>
<th>Eb</th>
<th>F</th>
<th>A</th>
<th>B</th>
<th>Ab</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>16</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>8</td>
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In Table 3 the black and red lines denote direct and retrograde relationships respectively and these, through their employment, divide the 41 statements into three groups of twelve with five complete presentations at the end. As can be seen from this chart, in the opening group, statements numbered 7 through 12 present retrograde forms of series 1 through 6, and in turn every remaining duration multiple series in the first half of *Incontri* can be related either directly or by retrograde to this set of twelve statements.

The duration multiples of statement number 13 correspond exactly to those presented by the series formed from the first multiple of each of the statements 1 through 12. In the same manner, the next eleven multiple statements, that is numbers 14 through 24, are related to the multiple series presented by each of the remaining eleven pitches of the first group. Multiple statements 25 to 36 are retrograde forms of statements 1 to 12 respectively. In the last five complete statements, in spite of an increased rate of multiple irregularities, a distinct retrograde relationship exists between these series and statements 20 to 24 as illustrated in the previous table.

Thus through the method of organization presented in Table 3, all forty-one duration multiple statements were derived from modification of the series 10-16-10-6-4-2-1-3-5-8-13-18. It is this series of numbers which was also the controlling
factor in the placement of double bar lines throughout the first half of *Incontri*. As has already been mentioned, the measure length of the segments created by these bar lines correspond to terms taken from the duration multiple series.

At separate points in the first half of *Incontri* Nono makes three sudden alterations in this previously described system of duration organization. Although the result is known it is not possible to determine whether changes were made in the pattern of basic durations or duration multiples. Starting at measure 49 and continuing to the middle of the work, each note on the lines of polytimbral continuity employing the basic duration of $\frac{1}{6}$ is twice as long as it should be according to the system of duration established at the beginning of the composition. Likewise the duration of notes on the continuous lines involving the basic durations of $\frac{1}{5}$ and $\frac{1}{6}$ are doubled at measures 66 and 98 respectively. Whether the basic durations or duration multiples were doubled is in effect irrelevant. The significant point to note is that for reasons about which one can only speculate, Nono felt the need or desire to modify an organizational system established to control the presentation of a specific parameter throughout the work. This is just one of a number of examples which will be discovered in this paper where a system is set up and then eventually either modified or in some cases abandoned completely.
The parameter of dynamics in the second movement of Canti per tredici and Incontri is not strictly organized. As can be seen in viewing Examples 8 and 9, each single pitch presentation of both Canti per tredici and Incontri is given its own dynamic indication although these individual dynamic levels are not determined or controlled in either composition by an overall system of organization. In both works, only six different dynamic indications, fff, f, mf, mp, p and ppp, are utilized and their method of presentation might best be described as one of continuous permutation. Of the 29 3/4 dynamic series presentations corresponding to the tone row repetitions in the second movement of Canti per tredici no two dynamic level statements are in any way related. This is similarly the case with the 41 row statements of Incontri.

In both the second movement of Canti per tredici and Incontri, certain techniques of organization which were found initially in Liebeslied are employed and developed to a further extent. Possibly the most obvious example of this is the aspect of the palindrome. Although palindrome structures were utilized in Liebeslied to a certain degree, they are employed more
extensively in the two works discussed in this chapter. Not only does the overall form of both compositions make use of palindrome constructions but also the palindrome is evident in the tone row structure of Canti per tredici, in the arrangement of the lines of polytimbral continuity in Incontri as well as in the ordering of the first duration multiple series of the second movement of Canti per tredici.

As was the case in Liebeslied, the parameter of pitch in these two works is not organized in the complex manner put forward by the post-Viennese movement. Although complete tone rows are clearly evident and repeated in a more or less strict manner, (which was not so in Liebeslied), only the original and quasi retrograde forms of the series is employed. This tends to support the idea put forward in Chapter II that Nono's prime concern in ordering the parameter of pitch was merely to ensure even distribution.

The technique of polytimbral continuity which was employed initially in selected segments of Liebeslied is found without interruption throughout both Incontri and the second movement of Canti per tredici. It is presented in a much more complex form in these two works and is closely related to the organizational system of duration. The aspect of continuous permutation is still in effect with the ordering of duration in both Canti
per tredici and Incontri, however, other more specific determining factors are also evident. This is most noticeable in Incontri where the duration multiples are employed according to a highly structured organizational method. It is in connection with the ordering of duration that one of the earliest examples can be found where Nono modifies a previously established system of parametric organization.
After completing *Incontri*, Nono composed *Il Canto sospeso* which is scored for soprano, alto and tenor soloists, mixed chorus and orchestra. This work was commissioned by the Westdeutschen Rundfunks and created during 1955 and the first part of 1956. *Il Canto sospeso* was given its première performance in Cologne on October 24, 1956 with Hermann Scherchen conducting¹ and published in the following year by Ars Viva Verlag of Mainz.

On initial viewing, one basic quality of the score of *Il Canto sospeso* which becomes evident is that of its complexity. In Chapter I, it was pointed out that through the nineteen-fifties Nono's compositions became increasingly more complex both rhythmically and texturally while at the same time the orchestral density was likewise expanded. This development is apparent as *Liebeslied*, *Canti per tredici*, *Incontri* and *Il Canto sospeso* are studied in succession. With *Il Canto sospeso*...
the score has become so complex that due to the resulting technical difficulties involved in its execution, Nono has had considerable trouble in arranging performances of this work.  

I  Orchestra  
II  Chorus a cappella  
III  Soprano, Alto and Tenor Soloists with Orchestra  
IV  Orchestra  
V  Tenor Solo and Orchestra  
VI  Chorus and Orchestra  
VII  Soprano Solo, Female Choir and Orchestra  
VIII  Orchestra  
IX  Chorus and Tympani  

Through the employment of fermate and other directions in the score, Nono indicates that the above divisions are grouped together into successive sections of four, three and two movements.

The subject of Il Canto sospeso, is, according to the composer, "L'intolérance du monde contemporain," and the texts employed are taken from the collection Lettere di condannati a morte della resistenza europa which was published in Italy in 1954. Nono uses nine fragments of last letters of resistance  

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4 Lettere di condannati a morte della resistenza europa (Turin: Edizioni Guilio Einaudi, 1954)
fighters who were condemned to death by Germany during World War II.

II

"...muoio er un mondo che splenderà con luce tanto forte con tale bellezza che il mio stesso sacrificio non è nulla. Per esso sono morti milioni di uomini sulle barricate e in guerra. Muoio per la giustizia. Le nostre idee vinceranno..."

III

"...mi portano a Kessariani per l'esecuzione insieme a altri sette. Muoio per la libertà e per la patria..."

"...oggi ci fucileranno. Moriamo da uomini per la patria. Siate degni di noi..."

"...m'impiccheranno nella piazza perché sono patriota. Tuo figlio se ne va, non sentirà le campane della libertà..."

V

"...se il cielo fosse carta e tutti i mari del mondo inchiostro non potrei descrivervi le mie sofferenze e tutto ciò che vedo intorno a me. Dico addio a tutti e piango..."

VI

"...le porte s'aprono. Eccoli i nostri assassini. Vestiti di nero. Ci cacciano dalla sinagoga. Com'è duro dire addio per sempre alla vita così bella!"

VII

"...addio mamma, tua figlia Liubka se ne va nell'umida terra..."
"...non ho paura della morte..."
"...sarò calmo e tranquillo di fronte al plotone di esecuzione. Sono così tranquilli coloro che ci hanno condannato?..."
"...vado con la fede in una vita migliore per voi..."5

The quality of immortal faith and courage illustrated by these fragments suggests two possible meanings for the somewhat ambiguous title of this composition which translated is "suspended song": not only is their song cut short by execution but also its message may continue forever.6 These letters chosen by Nono were all written by young people, including a Bulgarian teacher and journalist, two students and a hairdresser from Greece, a fourteen year old Polish farmboy, women from the U.S.S.R., an Italian typesetter and a female labourer from Germany. **Il Canto sospeso** is dedicated "a tutti loro."

The tone row utilized in **Il Canto sospeso** is the same as that found in **Canti per tredici:**

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5 A translation of the text can be found in the Appendix.

This symmetrical all-interval row is employed throughout Il Canto sospeso in varying degrees. In movements where the series presentation is closely controlled, the method of ordering is very similar to that seen in both Canti per tredici and Incontri. Techniques common to the "classical" Viennese twelve-tone school including row-form variation are neglected, the original pitch series being strictly repeated. In other movements of the composition, the tone row is hardly discernable, with the parameter of pitch being quite unordered. Various levels of pitch organization between these two extremes also exist and will be examined further within the discussion of each individual movement.

Of the five compositions examined by this study, the technique of polytimbral continuity assumes the greatest significance in Il Canto sospeso. This technique is employed in varying degrees throughout the work rather than being presented continuously from beginning to end. In fact, in certain
sections it is scarcely visible. Polytimbral continuity is of greatest structural importance in movements II, IV, V, VI B and VII and for this reason parametric organization in these movements will be analyzed in detail.

Movement II

Of the nine movements in *Il Canto sospeso*, more has been written on the second than any other movement. In 1958 Karlheinz Stockhausen had published in *Darmstädter Beiträge zur neuen Musik*, the article "Sprache und Musik" which included a controversial and yet influential partial analysis of this movement. Since then a number of theorists have written about the second movement including Reginald Smith Brindle whose efforts to elucidate on the matter of the organization of duration have been far from complete. As a result of these numerous analyses, the second movement of *Il Canto sospeso* is probably the most celebrated in analytic literature of any of Nono's works.

The second movement is divided into two parts of 34 and 16 measures in length respectively:

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Section 1 - measures 108 to 141
Section 2 - measures 142 to 157

These sections are defined primarily by the organization of the parameter of duration as will be discussed later.

In this movement, the parameter of pitch is strictly controlled. In a manner identical to that employed in both Canti per tredici and Incontri, the tone row is continually repeated in its original form only, with no transpositions, as can be seen in the following example.
The order of pitch appearance coincides with the ordering of the tone row in every statement. There are fifteen series statements in the first section while in section two there are only four presentations. As can be seen in Example 1 which presents the opening measures of the movement, in most cases any specific pitch within a row statement is presented by only one voice at a time. This practice is followed throughout the movement with only two irregularities: (1) in measure 108 the E-sharp is doubled; while (2) in measure 110 there is a duplication of C natural.

The technique of polytimbral continuity is applied throughout this movement and every note can be accounted for via this procedure. There are four separate, continuous lines employed and each of these has a different basic duration. The unit beat is divided by the numbers 2, 3, 4 and 5 to create the basic durations of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{5}$ respectively. This is the greatest number of different basic durations present within any one work up to this point in Nono's compositional development. In the four compositions examined so far the number of basic durations employed within each work has increased successively by one. In Liebeslied only one basic duration, $\frac{1}{4}$, was utilized, in Canti per tredici $\frac{1}{3}$ and $\frac{1}{5}$ were found and later in Incontri, three basic durations $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{6}$ were employed.
The four lines of polytimbral continuity in this second movement are presented in the manner illustrated by Example 2 in which the black, blue, green and red markings indicate continuous lines having the basic durations of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{5}$ respectively.
In the presentation of these lines of polytimbral continuity, one irregularity can be found and this is probably the result of an error in the process of publication. As can be seen in Example 2, the note D-natural presented by the second bass at the end of measure 109 has two different basic durations, $\frac{1}{5}$ and $\frac{1}{3}$. In order to coincide with the other notes found within that particular line, the note in question should have the basic duration of $\frac{1}{5}$ only.

Within each of the polytimbral lines individual notes are presented without vertical duplication. Only two exceptions to this rule are evident and these occur in measures 108 and 110 where, as previously mentioned, pitches are doubled. In comparing the score of this movement with that of both Canti per tredici and Incontri, it is most apparent that the quality of pointillism is not as predominant now as was the case in the earlier works. This has had a direct effect on the technique of polytimbral continuity. In the two previous compositions, no voice presented any more than one pitch in succession and this resulted in a rapid change in timbre. In this movement of Il Canto sospeso, voices frequently have a number of different notes in a row and as a result, timbre no longer varies as quickly. This is particularly noticeable in the second section of the movement, measures 142 to 157.

The arrangement of the various lines of polytimbral continuity within the movement is illustrated by the following:
Figure 6.— Arrangement of Lines of Polytimbral Continuity in Movement II of Il Canto sospeso

Measures 108 to 157

Basic Durations: \( \frac{1}{5}, \frac{1}{4}, \frac{1}{3}, \frac{1}{2} \).
This distribution of the polytimbral lines defines somewhat the two sections of the movement. Throughout the first section, that is, measures 108 to 141, all four lines are continuously employed. In the second section, the ordering of line entrances and exits is clearly fashioned on a palindrome pattern. As can be seen in the above illustration, the sequence black-blue-green-red which indicates the basic duration of each successive line entry is reversed when determining the order of line termination.

The technique of polytimbral continuity in *Il Canto sospeso* has the same functions as were discussed in connection with both *Canti per tredici* and *Incontri*. Not only does this technique provide a direct relationship between the ordering of sound and that of a silence but also, through the employment of polytimbral continuity, the basic duration of a specific note is established. As mentioned previously, the ordering of pitch succession coincides with the ordering of the original tone row; as each pitch in the row is due to be presented it is given to whichever polytimbral line is next available. As each line has a different basic duration, it is this technique of polytimbral continuity which is the controlling factor in the determination of a note's basic duration.

As was the case in both *Canti per tredici* and *Incontri*,
the system of organization for the parameter of duration has
two main components: basic duration and duration multiple.
While the former is controlled through the technique of poly­
timbral continuity, the latter is determined through the em­
ployment of a structured pattern of number series presented
in close connection with the tone row statements.

In creating the number series to be employed as duration
multiples, Nono uses the first six terms of the Fibonacci num­
bers and it is possibly this utilization of such an intriguing
number sequence that inspired theorists to choose to analyze
and write about this particular movement rather than any of the
other such similarly organized movements of Il Canto sospeso.

In 1202, an Italian mathematician Leonardo of Pisa, bet­
ter known by the name Fibonacci, wrote Liber abaci, a compre­
hensive work containing almost all of the arithmetic and alge­
braic knowledge of that day. It was in the Liber abaci that
the sequence 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377,
... was first mentioned; a sequence in which each term is the
sum of the two preceding terms. This sequence which was ini­
tially employed by Leonardo to solve a problem involving rabbit
reproduction has since become known as the Fibonacci sequence

9 N.N. Vorobyov, The Fibonacci Numbers. Translated by
Norman D. Whaland, Jr., and Olga A. Titelbaum (Boston: D.C.
and its terms, the Fibonacci numbers.  

The systems of proportion applied to the parameters of most tonal music have been based primarily on two simple number series: (1) the geometrical series 1, 2, 4, 8, 16, ... and (2) the arithmetical series 1, 2, 3, 4, 5, 6, 7, ... In developing his systems for controlling the parameter of duration, Nono has avoided employing these two series. Although Nono has utilized the Fibonacci numbers in only one instance, that being the second movement of *Il Canto sospeso*, on other occasions he has used sequences which have distinguishing qualities in common with the Fibonacci sequence. More specifically, the Fibonacci sequence is classified as a recursive sequence, that is, a sequence in which each term is defined as a certain function of the preceding terms. As will be seen, Nono has employed recursive sequences in several systems of duration organization.

Nono's concept of applying Fibonacci numbers in the ordering of duration in the second movement of *Il Canto sospeso* is by no means unique since numerous composers in the twentieth-century have employed this particular sequence for the purpose of parametric organization. Through the writings of Ernő Lendvai.  

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Bela Bartok's apparent use of the Fibonacci sequence and the mean proportional of the golden section which is determined from Fibonacci numbers in arranging various parameters in a certain number of his works, has become well known. Working primarily in West Berlin, Boris Blacher during the nineteen-fifties developed a system of variable meters. In *Ornamente für Klavier* dating from 1950, he employs terms from the Fibonacci sequence to determine the various meters. Ernst Krenek has "used the terms of the Fibonacci series from 2 to 21 to determine the speed zones in a recent orchestral composition entitled *Quaestio temporis" and these numbers also play a significant organizational role in his work *Fibonacci-Mobile*. It is also most interesting to note that Nono's colleague Karlheinz Stockhausen was employing terms from the Fibonacci

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sequence in Klavierstück IX at approximately the same time as Nono was composing Il Canto sospeso.

The duration multiple series for the first section of the second movement of Il Canto sospeso is formed from the first six terms of the Fibonacci sequence arranged in the following manner:

1 2 3 5 8 13 13 8 5 3 2 1

These numbers, based on a palindrome structure, are then employed as multiples to determine the duration of the first twelve notes of the movement, that is, the first tone row statement.

Similar to the pitch ordering, this duration multiple series is strictly presented coinciding precisely with the ordering of the palindrome pattern presented above. As has been already mentioned, there are fifteen tone row statements in section one and likewise there are the same number of duration multiple series presentations. Each of the remaining fourteen multiple statements has the same content as the first series although the ordering of multiple appearance is modified continually as can be seen through examining the following table:
From Table 4 which presents the duration multiples as they appear together with the tone row statements, it can be seen that multiple statements 2 through 15 have the same succession of numbers as statement 1, although the statements commence on different terms. The only irregularity to this is found in statement 12 where the last two terms are reversed, possibly as the result of a printer's error. As each successive initial multiple of statements 1 through 12 coincides with the ordering of statement 1, this results in the organization as illustrated.
in the table: the first twelve horizontal number rows are identical to the respective twelve vertical rows. With statement number 13, Nono slightly modifies this previously established pattern of entrances. While it might have been expected that the series would again commence on the multiple 1 and thus repeat the pattern of statement 1, Nono avoids this repetition by skipping to a series starting with the multiple 2. Again, here is an example of where the composer felt it necessary to modify an otherwise symmetrical, logical system of ordering.

Although this system of multiples does generally determine the duration of notes in the first section, it is not a system of total control since Nono still has a limited amount of freedom in its application. This occurs when notes from two or more polytimbral lines end at the same time.

In measure 126, notes from the lines having the basic durations of $\frac{1}{3}$ and $\frac{1}{5}$ both terminate at the end of the first unit beat. As a result, Nono can choose to which polytimbral lines the next two multiples, 3 and 5, will be applied.

The duration multiple series for the second half of the movement is constructed from the same six Fibonacci numbers but they are now reversed to form a different palindrome structure:

```
13  8  5  3  2  1  1  2  3  5  8  13
```
For the first time in any system of duration organization examined so far in this study, the duration multiple series is presented completely by one horizontal line of polytimbral continuity. The series is no longer employed vertically with the order of appearance coinciding with the pitch series statements.

In this second section each line of polytimbral continuity presents one complete statement of the above series only. These lines are so arranged that the central point of each series statement occurs at approximately the same point.

As a result of the application of this palindromic multiple series allowing each of the four lines to reach its midpoint at approximately the same time, there is an ordered increase and decrease in note activity throughout the second section. There are no multiple irregularities or simultaneous note commencements and thus this system controls completely the parameter of duration in the second section of the movement.

In this second movement of Il Canto sospeso there is not, for the parameter of dynamics, an overall system of organization applied either in conjunction with pitch appearance or with the technique of polytimbral continuity, even though each note in the movement has its own dynamic indication. In his analysis, Karlheinz Stockhausen suggests that each of the twelve pitches receives a different intensity whenever it recurs.\(^\text{17}\) He does not however prove conclusively that this is in fact the case, or for that matter, that there was any intent by Nono to order the parameter of dynamics in any manner. By this point in Stockhausen's article, the reader may be somewhat sceptical of the analysis since Nono, by the time the English translation appeared, had informed Stockhausen

that his basic point of the existence of serial vocal structure in this movement was incorrect and misleading.\(^\text{18}\)

**Movement IV**

The orchestra in the fourth movement of *Il Canto sospeso* is divided into two distinct groups. Throughout the movement certain wind and percussion instruments present one line of polytimbral continuity while the string instruments duplicate selected pitches from this continuous line.

\(^{18}\) *Ibid*, p. 49.
As can be seen in Example 6, at various points within the line of polytimbral continuity itself there are note doublings. One notable difference between these duplications and those of earlier compositions involving polytimbral continuity is that now only duration is doubled. In previous works both duration and pitch were duplicated.

While the pitches in the strings are introduced both at the same time and in the same registers as their polytimbral counterparts in the winds and percussion, the durations do not correspond. These notes in the strings are generally sustained for a longer period of time.

In movement IV, there are also four different basic durations employed. Instead of \( \frac{1}{2}, \frac{1}{3}, \frac{1}{4} \) and \( \frac{1}{5} \) as was found in the second movement, the basic durations are now \( \frac{1}{3}, \frac{1}{4}, \frac{1}{5} \) and \( \frac{1}{7} \) which are represented by the colours blue, green, red and black respectively. The basic duration of the line of polytimbral continuity which runs throughout this movement, rather than remaining constant, is changed periodically according to the following pattern:
Figure 7.— Arrangement of Basic Durations for the Line of Polytimbral Continuity in Movement IV of Il Canto sospeso

Basic Durations: \( \frac{1}{7} \), \( \frac{1}{5} \), \( \frac{1}{4} \), \( \frac{1}{3} \).
In viewing Figure 7 it can be seen that the arrangement of basic durations is based on a palindrome structure.

The technique of duration multiple presentation in this movement is similar to that of *Incontri* and movement II of *Il Canto sospeso*, in that one number series is employed throughout the movement, with each statement following the ordering of the series although the starting point is never the same. The duration multiple series of movement IV is formed from the first twelve terms of the simple arithmetic series and the first statement is as follows: 11, 2, 1, 9, 7, 12, 6, 3, 4, 8, 10, 5. With each of the remaining seven and one-half statements this succession of multiples is present although every statement commences with a different term.
As can be seen in Table 5, the basic duration changes after each complete multiple series statement (with the exception of statement 4) and these basic durations are arranged according to a palindrome pattern.

Although at first glance there appears to be no obvious system for determining on which multiple the statements are to commence, if one examines the difference between each initial multiple of the successive series statements, a distinct pattern becomes apparent:

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<td>11</td>
<td>2</td>
<td>1</td>
<td>9</td>
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<td>8</td>
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<td>1</td>
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<td>12</td>
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<td>3</td>
</tr>
<tr>
<td>4  257-260</td>
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<td>5</td>
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<td>2</td>
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<td>12</td>
<td>6</td>
<td>3</td>
<td>4</td>
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<td>9  281-284</td>
<td>7</td>
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<td>6</td>
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</tr>
</tbody>
</table>

Basic Duration

\[
\begin{align*}
\frac{1}{3} & \\
\frac{1}{4} & \\
\frac{1}{5} & \\
\frac{1}{7} & \\
\frac{1}{7} & \\
\frac{1}{5} & \\
\frac{1}{4} & \\
\frac{1}{3} & 
\end{align*}
\]
These differences form an alternating pattern with two terms, 6 and 1. Thus there is a symmetrical ordering of statement entrances, as was the case in the second movement.

One significant point in this presentation of duration multiples is that there are no irregularities in the system of multiple ordering and as a result this system controls completely the organization of the parameter of duration.

The parameter of pitch in this movement is not ordered strictly. Although the complete tone row is presented in its correct order in the first seven measures, irregularities are introduced by the notes of duplication of the polytimbral line. These additional pitches are circled in the following example.
In the remainder of the movement while there is a relatively even distribution of pitches, most statements are not structured. It is not until the last twelve notes of the polytimbral line (notes 7 to 12 of statement 8 and notes 1 to 6 of statement 9) that the ordering of the tone row again becomes apparent. Similar to statement 1, additional pitches are also present.

Movement V

In the fifth movement of *Il Canto sospeso*, the technique of polytimbral continuity plays a more significant role in parametric organization than has been found in any other system examined so far in this study. The relationship of polytimbral continuity to the ordering of certain selected parameters is developed to the most complex form to be attained in Nono's compositions. In the second section of movement II of *Il Canto sospeso*, the division multiple series was presented horizontally by each individual polytimbral line. This has been a new step for Nono since up to that time duration was ordered in close connection with the presentation of the tone row. In the fifth movement, this new practice has been expanded to include other note variables. The parameters of pitch, duration and dynamics are now all organized, following closely the lines of polytimbral continuity.
In this movement every note can be accounted for through the technique of polytimbral continuity. There are three polytimbral lines which run through the movement and they are arranged according to the pattern illustrated by Figure 8. The basic durations for these lines are $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{6}$ which are represented by the colours green, red and blue respectively.
Figure 8.— Arrangement of Lines of Polytimbral Continuity in Movement V of *Il Canto sospeso*

Measures 285 to 318

Basic Duration: \( \frac{1}{6}, \frac{1}{5}, \frac{1}{4} \).
As might be expected, the ordering of line entries and terminations is based on a palindrome pattern.

The orchestration of these lines is, for the first time in Nono's employment of polytimbral continuity, specifically ordered. The following list presents the instruments utilized by each of the three lines:

**Red**
Solo Tenor
Vibraphone
Marimba

**Green**
Solo Violin I
Solo Viola
Solo Vcl.
Solo Cb.
Harp II
Clar. I
Ob. I
Fg. I
Clar. basso
Tr. II
Tr. III
Tr. V
Trb. I

**Blue**
Solo Violin I
Solo Violin II
Solo Viola
Solo Vcl.
Solo Cb.
Harp I
Fl. I
Ob. I
Fg. I
Clar. basso
Cor. I
Tr. II
Tr. III
Tr. V
Trb. II

This is illustrated in the next example.
The quality of pointillism here is much more evident than was the case in the second movement. With the exception of the solo tenor parts of the line employing the basic duration of \( \frac{1}{5} \), timbre once again changes quite rapidly within a line.

The system of organization for pitch in this fifth movement is more complex than any other examined in this paper. Whereas in previous compositions the tone row generally was merely repeated in its original form, this is no longer the case. Pitch ordering now strictly follows the lines of polytimbral continuity. Each polytimbral line presents ten tone row statements and these are given in the following table. It should be stressed that with Table 6 the pitches are stated in order of appearance within each line.

**TABLE 6**

**PITCH ORDERING WITHIN EACH OF THE THREE LINES OF POLYTIMBRAL CONTINUITY IN MOVEMENT V OF *IL CANTO SOSPESO***

<table>
<thead>
<tr>
<th>Green Line</th>
<th>Order of Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1</td>
<td>2 3 4 5 6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>1</td>
<td>Eb E D F C# F# C G B Ab Bb A</td>
</tr>
<tr>
<td>2</td>
<td>A Bb Ab B G C F# C# F D E Eb</td>
</tr>
<tr>
<td>3</td>
<td>A B F Eb Bb C F# E G# G C# D</td>
</tr>
<tr>
<td>4</td>
<td>Bb C F# E A G# D Eb B G Db F</td>
</tr>
<tr>
<td>5</td>
<td>A Ab D Eb G C F# C# Bb B F E</td>
</tr>
<tr>
<td>6</td>
<td>G C F# C# G# B F D A Bb E Eb</td>
</tr>
<tr>
<td>7</td>
<td>Eb E Bb A D F B G# C# F# C G</td>
</tr>
<tr>
<td>8</td>
<td>E F B Bb C# F# C G Eb D Ab A</td>
</tr>
<tr>
<td>9</td>
<td>F C# G B Eb D G# A E F# C Bb</td>
</tr>
<tr>
<td>10</td>
<td>D C# G Ab E F# C Bb Eb F B A</td>
</tr>
</tbody>
</table>
Possibly the most significant aspect of these three sets of orderings is that the pitch presentations of both the red and blue lines are directly and closely related to that of the green line. The order of pitch appearance in the red line (with the exception of note 2 of statement 2) is an exact retrograde of that presented by the green line. The pitch organization of the blue line is related to that of the green
line through inversion. Each row statement in the blue line is an exact retrograde of the corresponding statement of the green line, with the only irregularities occurring with notes 7 and 8 of statement 7 and notes 5 and 6 of statement 10. Through the two procedures of retrograde and inversion, the pitch organization of the red and blue lines were derived from that of the green line.

As a result of these retrograde and inversion pitch relationships between the orderings of the three lines of polytimbral continuity, there can be found in this movement the four different forms of the tone row: original, retrograde, inversion and retrograde-inversion. The row is presented in its original form in statements 2 and 10 of the green and red lines respectively while the retrograde form is presented by statements 1 and 9 of the green and red lines respectively. Even more significant, statements 1 and 2 of the blue line presents the retrograde-inversion and inversion forms of the tone row. This is the only system of pitch organization studied in this paper in which these four row forms are employed.

As illustrated in Table 6, retrograde relationships exist between the row statements within all three lines. While only one such relationship exists in the blue line, within the other two lines the retrograde statement relationships are organized into palindromic structures. As the red line is a
mirror of the green, these relationships are reversed accordingly.

In further examining the pitch ordering of the green line it can be seen that while Il Canto sospeso's principal tone row is employed in statements 1 and 2, with statements 3 through 10 it is no longer visible. In the following diagram the intervallic structures of statements 3 to 6, which are of course reversed to form statements 7 to 10, are presented:

<table>
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<tr>
<th>Statement</th>
<th>1</th>
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<tr>
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<td>M2</td>
<td>T</td>
<td>M2</td>
<td>P4</td>
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<td>T</td>
<td>P4</td>
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<tr>
<td>6</td>
<td>P4</td>
<td>T</td>
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<td>P4</td>
<td>m2</td>
<td>T</td>
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</tr>
</tbody>
</table>

Although the actual pitch presentations of these four statements are not closely associated, it can be seen that their intervallic structures are somewhat similar. Each statement is constructed of three groupings of three intervals each, with the remaining two intervals separating the groupings. The central interval of each of these groupings is a tritone and in every case the outer two intervals are the same. This
results in three small palindrome structures within every statement. This method of intervallic structuring is also present in both the red and blue lines since the pitch statements of all three lines are related, as mentioned before, either through retrograde or inversion.

The parameter of duration is also organized following the lines of polytimbral continuity. Each of the three polytimbral lines presents ten statements of duration multiple rows. There are four different forms of duration multiple rows, each of which contains four presentations of the terms 1, 2 and 7.

As can be seen above, each of these multiple series displays palindrome symmetry. In the following table, the duration multiple presentations of the three polytimbral lines can be found. Since the order of multiple appearance in the green and blue lines is identical, only two charts are necessary within this table.
TABLE 7
DURATION MULTIPLE PRESENTATION OF EACH LINE OF POLYTIMBRAL CONTINUITY IN MOVEMENT V OF *IL CANTO SOSPESO*

Green Line and Blue Line

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Red Line

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<td>7</td>
<td>2</td>
<td>2</td>
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<td>1</td>
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<td>2</td>
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<tr>
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</tr>
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<td>7</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>7</td>
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<td>2</td>
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<tr>
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<td>1</td>
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<td>2</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>1</td>
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<tr>
<td>10</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
In both of the multiple schemes given in Table 7, all four different multiple rows are present. In these two charts, the row form statements are also ordered according to palindrome structures. With the green and blue lines, statements 1 to 9 are organized into two small palindrome patterns with the last statement repeating the initial series. In the red line, statements 1 to 9 form one large palindrome with the last statement repeating the ordering of statement 2.

The duration multiple presentation of each of these polytimbral lines is much more symmetrical than any multiple ordering found up to this point in the study. Palindrome organization not only determines the structure of each multiple series statement but it also determines the order of appearance of these statements within each line.

In the second section of movement II of *Il Canto sospeso* it was discovered that the multiple series was presented by each polytimbral line in such a way that the central point of each series was reached in the score at approximately the same time. This is similarly the case in the fifth movement. The central point of the duration multiple presentation of each polytimbral line, that is, at the end of the fifth statement, occurs in measure 301.

Although the parameter of dynamics is not organized in a complex manner in this movement, what little ordering of
dynamic indications does exist, follows the lines of poly­
timbral continuity. Only five different dynamic levels, ppp, p, mp, mf and f, are employed; crescendi and decrescendi are not utilized. Nono directly relates the organization of dynamics to that of duration. While the ordering of duration multiple appearance was identical in the blue and green lines, another pattern of presentation was employed by the red line. This is similarly the case with the dynamics. The ordering of appearance of dynamic levels in the blue and green lines is the same, while the red line has a new scheme of presentation.

Of the ten dynamic series statements in both the green and blue lines, the only example of specific pattern of ordering is found in comparing statement 1 to statement 10. The dynamic presentation of the first statement, ppp, p, ppp, p, ppp, p, mp, p, mp, p, mp, p, is exactly reversed for the last statement. The central eight statements of both of these lines merely present a continuous permutation of the five different dynamic levels with no symmetry of organization at all evident. In the red line, the only significant aspect of ordering is that the dynamic levels are generally stated in sets of three, in the following manner:
Order of Appearance

Statement 1 2 3 4 5 6 7 8 9 10 11 12
1 ppp ppp ppp p p p mp mp mp p p p
2 p p p mp mp mp mf mf mp mp mp

Other than this there is no controlling factor in the determination of dynamics in the red line.

In reviewing the organization of pitch, duration and dynamics in this fifth movement, it should be stressed that the ordering of all three parameters follows the lines of polytimbral continuity. With duration and dynamics, the patterns of ordering for the green and blue lines are identical while in both cases the red line presents a new scheme. In the organization of pitch however, the red line presents a retrograde form of the green line while the blue line has an inverted form of the green line.

Movement VI B

Instead of continuing with the system of parametric organization employed in movement V, Nono in this movement reverts back to that utilized in movement II.

The parameter of pitch in movement VI B is ordered in exactly the same manner as it was in the second movement. The tone row A, B, Ab, B, G, C, F#, C#, F, D, E, E, is again continually repeated in its original form only, with no transpo-
positions. The series is presented vertically with pitch appearance coinciding with the ordering of the original tone row. There are eleven complete tone row statements plus one single note, A natural. The only irregularity of pitch presentation is found in measure 392 where the cellos have an E natural rather than the expected E-flat.

There are four lines of polytimbral continuity in this movement; two lines employ the basic duration of \( \frac{1}{3} \) while the other two have the basic duration of \( \frac{1}{5} \). Although every note can be accounted for by this technique, there can be found, for the first time in this composition, breaks in the polytimbral lines.

As was the case in the second movement where the Fibonacci numbers were employed, the duration multiple series in movement VI B is constructed from six terms of a recursive sequence: 2, 3, 5, 8, 12, 17. In this sequence, the difference between consecutive terms increases each time by one. These six terms are presented twice, forming the duration multiple series which is as follows:

\[
\begin{array}{cccccccccccc}
17 & 12 & 8 & 5 & 3 & 2 & 2 & 3 & 5 & 8 & 12 & 17 \\
\end{array}
\]
Like the duration multiple rows of movements II and V, this multiple series displays palindrome symmetry.

The technique of employing the duration multiple series in this movement is exactly the same as that found in the second movement. The eleven and one-twelfth multiple series statements are presented coinciding with the eleven and one-twelfth pitch series statements. The multiple series, 17, 12, 8, 5, 3, 2, 2, 3, 5, 8, 12, 17 is employed throughout the movement, with each statement following the ordering of the series but not necessarily starting at the same point.

**TABLE 8**

**STATEMENTS OF DURATION MULTIPLE SERIES IN MOVEMENT VI B OF IL CANTO SOSPESO**

<table>
<thead>
<tr>
<th>No.</th>
<th>Mm.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>F#</th>
<th>C#</th>
<th>F</th>
<th>D</th>
<th>E</th>
<th>E♭</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>364-370</td>
<td>17</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>370-374</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>374-377</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>377-381</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>5</td>
<td>381-386</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>386-396</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>17</td>
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<td>12</td>
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<tr>
<td>7</td>
<td>392-396</td>
<td>2</td>
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<td>5</td>
<td>8</td>
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<td>17</td>
<td>16</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>396-400</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>17</td>
<td>17</td>
<td>12</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>400-403</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>17</td>
<td>17</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>403-407</td>
<td>8</td>
<td>12</td>
<td>17</td>
<td>17</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>407-411</td>
<td>12</td>
<td>17</td>
<td>17</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>411-413</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 8 which presents the duration multiples as they appear coinciding with the tone row statements, it can be seen that
multiple statements 2 through 11 have the same succession of numbers as statement 1, although, these statements commence on different terms. The only irregularities to this are found on F-sharp of statement 7 and E-flat of statement 11. As each successive initial multiple of statements 1 through 12 coincides with the ordering of statement 1, the result is the organization as illustrated in the table: the first eleven horizontal number rows are identical to the respective eleven vertical rows (taking into consideration the missing multiples resulting from incomplete statement 12). Likewise the only multiple of statement 12 is the same as note 1 of statement 1.

The technique of relating horizontal multiple rows to vertical multiple rows was employed previously in the second movement. In the discussion of this earlier movement it was mentioned that Nono frequently modified an otherwise symmetrical system of ordering. This tendency is also apparent in movement VI B in that, for no logical reason, he refrained from completing the symmetry of this pattern.

Movement VII

In the fifth movement, the parameters of pitch, duration and dynamics were organized following the lines of polytimbral continuity. They are not distinguished, as has been the case up to now, by having different basic durations since all three
voices employ the basic duration of $\frac{1}{4}$. Rather, they are characterized by orchestration. In movement VII there are three different vocal parts: solo-soprano, soprano and contralto. One polytimbral line is associated with each of these three parts. In this movement the three colours, red, blue and green will be employed to indicate the polytimbral lines presenting the solo-soprano, soprano and contralto parts respectively.

The practice of having the vocal parts presented by one specific polytimbral line only is followed strictly throughout the movement.

In movement VI B there are found frequent breaks in the lines of polytimbral continuity and this is again the case in the seventh movement. Now however these line entrances and terminations are arranged according to a symmetrical pattern which is presented in Figure 9. Each line is structured into horizontal statements of twelve notes and in the following figure, the vertical dotted lines indicate divisions between two successive statements.
Figure 9.-- Arrangement of Lines of Polytimbral Continuity in Movement VII of _Il Canto sospeso_

Number of 12-note statements:

- = Solo Soprano Line, -- = Soprano Line, --- = Contralto Line.
Movement VII consists of two sections, measures 414 to 450 and measures 451 to 488, which are defined not only by the arrangement of polytimbral lines but also by the organizational systems for the parameters of pitch, duration and dynamics.

There are twelve presentations of the twelve-tone statements in both the first and second half of the seventh movement. The number of simultaneously presented statements are arranged according to palindrome symmetry within each section, as can be seen in Figure 9. While the solo-soprano line is found throughout, the two lines from the chorus are presented in such a way that mirror patterns of statement densities, ranging from one to three in number, are produced.

As mentioned earlier, pitch, duration and dynamics are ordered following the lines of polytimbral continuity and these lines present in total twenty-four horizontal statements of twelve notes each. For the purpose of this analysis, these statements are numbered as follows:

First Section

<table>
<thead>
<tr>
<th>Statement Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Solo-Soprano Line, measures 414 to 420</td>
</tr>
<tr>
<td>(2)</td>
<td>Solo-Soprano Line, measures 420 to 426</td>
</tr>
<tr>
<td>(3)</td>
<td>Soprano Line, measures 420 to 426</td>
</tr>
<tr>
<td>(4)</td>
<td>Contralto Line, measures 420 to 426</td>
</tr>
<tr>
<td>(5)</td>
<td>Solo-Soprano Line, measures 426 to 432</td>
</tr>
<tr>
<td>(6)</td>
<td>Contralto Line, measures 426 to 432</td>
</tr>
<tr>
<td>(7)</td>
<td>Solo-Soprano Line, measures 432 to 438</td>
</tr>
<tr>
<td>(8)</td>
<td>Soprano Line, measures 432 to 438</td>
</tr>
<tr>
<td>(9)</td>
<td>Solo-Soprano Line, measures 438 to 444</td>
</tr>
</tbody>
</table>
First Section

Statement Number
(10) Soprano Line, measures 438 to 444
(11) Contralto Line, measures 438 to 444
(12) Solo-Soprano Line, measures 445 to 451

Second Section

Statement Number
(13) Solo-Soprano Line, measures 451 to 457
(14) Contralto Line, measures 451 to 457
(15) Solo-Soprano Line, measures 457 to 463
(16) Soprano Line, measures 457 to 463
(17) Contralto Line, measures 457 to 463
(18) Solo-Soprano Line, measures 463 to 469
(19) Soprano Line, measures 463 to 469
(20) Contralto Line, measures 463 to 469
(21) Solo-Soprano Line, measures 469 to 475
(22) Soprano Line, measures 469 to 475
(23) Solo-Soprano Line, measures 476 to 482
(24) Solo-Soprano Line, measures 482 to 488

The method of organization for each of the three parameters is exactly the same. Regarding pitch, the tone row employed in previous movements is not utilized but rather the twelve notes of the chromatic scale are arranged in various ways to produce twelve different patterns, which are presented below.
The number given with each of these patterns refers to the statement (from the previous listing) in which the pitch pattern is found.

With dynamics there is similarly no one basic series utilized but rather the three different dynamic levels, ppp, p and mf, are employed to create twelve different patterns.

Again, the numbers given with these dynamic patterns refer to the statements of the first section in which they occur.

Statement

Number

Order of Appearance

(1) A C B♭ G A♭ B E♭ F♯ E C♯ D F
(2) B G♯ G E♭ F♯ E A C B♭ F D C♯
(3) G B E E♭ F♯ D E♭ C C♯ A F A♭
(4) B♭ C♯ E A F♯ C B F D E♭ - -
(5) F♯ E E♭ A B G A B♭ C C♯ F D
(6) C♯ G D B A F♯ D♭ A♭ B♭ C E F
(7) G E E♭ A♭ G♭ F B C D A B♭ C♯
(8) A G D B E♭ C♯ C E G♯ F F♯ B♭
(9) E G♯ B♭ D F E♭ B A G F♯ C♯ C
(10) C G♯ E C♯ B E♭ D A G F B♭ F♯
(11) E♭ B C♯ D A G C G♯ E F♯ B♭ F
(12) D F B♭ F♯ F A G♯ C♯ D♭ B E C

(Statement)

Number

Order of Appearance

(1) ppp mf mf p p ppp p ppp p ppp p mf mf p
(2) p ppp mf mf p ppp mf ppp ppp ppp ppp p ppp p
(3) mf ppp ppp mf mf p p ppp ppp p ppp p mf ppp
(4) mf p ppp mf ppp mf ppp p p ppp p ppp p ppp p
(5) mf ppp p p p p p mf p ppp ppp ppp - -
(6) ppp p mf p p p mf ppp ppp ppp ppp ppp p
(8) ppp p mf ppp mf ppp ppp mf p mf p pmf p
(9) ppp mf ppp p ppp mf p mf p ppp ppp p
(10) p ppp p mf mf p ppp ppp mf mf p p p pp
(11) mf p ppp p ppp mf ppp ppp mf p p pp
(12) p mf mf ppp mf ppp p ppp ppp p p mf mf
In organizing the parameter of duration, six different terms, 1, 2, 3, 5, 8, 12 are each presented twice to create a multiple pattern. There are six different multiple patterns and in the first section each of these is employed twice. They are listed below along with their corresponding statement numbers.

<table>
<thead>
<tr>
<th>Statement Number</th>
<th>Order of Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>1 12 2 8 3 5 1 12 2 8 3 5</td>
</tr>
<tr>
<td>(2)</td>
<td>12 8 5 12 8 5 1 2 3 1 2 3</td>
</tr>
<tr>
<td>(3)</td>
<td>2 5 2 5 12 3 12 3 1 8 1 8</td>
</tr>
<tr>
<td>(4)</td>
<td>5 5 3 3 8 8 2 2 12 12 - -</td>
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<tr>
<td>(5)</td>
<td>8 12 5 2 1 3 12 5 8 1 3 2</td>
</tr>
<tr>
<td>(6)</td>
<td>12 2 3 5 1 2 8 5 1 12 8 3</td>
</tr>
<tr>
<td>(7)</td>
<td>12 2 3 5 1 2 8 5 1 12 8 3</td>
</tr>
<tr>
<td>(8)</td>
<td>8 12 5 2 1 3 12 5 8 1 3 2</td>
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<tr>
<td>(9)</td>
<td>2 5 2 5 12 3 12 3 1 8 1 8</td>
</tr>
<tr>
<td>(10)</td>
<td>1 12 2 8 3 5 1 12 2 8 3 5</td>
</tr>
<tr>
<td>(11)</td>
<td>12 8 5 12 8 5 1 2 3 1 2 3</td>
</tr>
<tr>
<td>(12)</td>
<td>5 5 3 3 8 8 2 2 12 12 1 1</td>
</tr>
</tbody>
</table>

In the second half of the movement, each of the twelve patterns of all three parameters is repeated in retrograde. The relationship of any one specific dynamic pattern to its corresponding pitch and duration multiple patterns is however maintained. For example, statement number 1 from the first section presents the following patterns.

<table>
<thead>
<tr>
<th>pitch</th>
<th>A</th>
<th>C</th>
<th>B♭</th>
<th>G</th>
<th>A♭</th>
<th>B</th>
<th>B♭</th>
<th>F#</th>
<th>E</th>
<th>C#</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>duration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>multiple</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>dynamics</td>
<td>ppp</td>
<td>mf</td>
<td>mf</td>
<td>p</td>
<td>p</td>
<td>ppp</td>
<td>p</td>
<td>ppp</td>
<td>p</td>
<td>ppp</td>
<td>mf</td>
<td>mf</td>
</tr>
</tbody>
</table>
The retrograde of statement number 1 is found in statement 22 which is as follows:

<table>
<thead>
<tr>
<th>Pitch</th>
<th>Duration</th>
<th>Multiple</th>
<th>Dynamics</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>5</td>
<td></td>
<td>p</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td></td>
<td>mf</td>
</tr>
<tr>
<td>C#</td>
<td>8</td>
<td></td>
<td>mf</td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td></td>
<td>p</td>
</tr>
<tr>
<td>F#</td>
<td>12</td>
<td></td>
<td>ppp</td>
</tr>
<tr>
<td>D#</td>
<td>1</td>
<td></td>
<td>p</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td></td>
<td>ppp</td>
</tr>
<tr>
<td>G#</td>
<td>3</td>
<td></td>
<td>p</td>
</tr>
<tr>
<td>G</td>
<td>8</td>
<td></td>
<td>mf</td>
</tr>
<tr>
<td>Bb</td>
<td>2</td>
<td></td>
<td>mf</td>
</tr>
<tr>
<td>C</td>
<td>12</td>
<td></td>
<td>ppp</td>
</tr>
<tr>
<td>A</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each parametric pattern from the first statement is precisely reversed in this statement. This is similarly the case with retrograde forms in the second section, of statements 2 through 12.

The retrograde relationships of the twelve statements in the first half of the movement VII to those of the second half are as follows:

<table>
<thead>
<tr>
<th>Original Statement</th>
<th>Corresponding Retrograde Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>5</td>
<td>19</td>
</tr>
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<td>6</td>
<td>21</td>
</tr>
<tr>
<td>7</td>
<td>17</td>
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<td>8</td>
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<td>9</td>
<td>16</td>
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<td>10</td>
<td>13</td>
</tr>
<tr>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>12</td>
<td>14</td>
</tr>
</tbody>
</table>

Each of these pairings, then, presents a palindrome ordering of the patterns of pitch, dynamics and durations, since the basic duration is the same for every line. The only irregularities are
the two omissions which can be seen in the three listings of patterns.

This method of organization in movement VII presents one of the few examples of Nono's work where systems of ordering for two or more different parameters coincide completely.

In examining the five movements of *Il Canto sospeso* in which polytimbral continuity is most evident, it is apparent that this technique becomes more structurally important. In movements II, IV and VI B where the organization of duration is closely associated with the strict repetitions of the tone row, polytimbral continuity has basically the same functions as were seen in *Canti per tredici* and *Incontri*. The two prime functions being: (1) to provide a direct relationship between the ordering of sound and that of silence; and (2) to establish the basic duration of a note for the purpose of organizing the parameter of duration.

In movements V and VII, polytimbral continuity assumes even greater significance. During these movements the polytimbral lines become vehicles for the horizontal statement of
series from the organizational systems of not only pitch and
duration but dynamics as well. In addition, movement VII
presents one of the few examples of Nono's compositional output
where systems of ordering for two or more different parameters
coincide completely.

Undoubtedly the most frequently employed structural
device during these five movements is that of the palindrome.
While it was certainly important in the previous works, the
palindrome is now found governing every conceivable aspect of
the systems of organization.

In Il Canto sospeso the orchestration of lines of
polytimbral continuity becomes important. In movement V it
was seen that, for the first time polytimbral lines are pre­
sented by specific instruments. This in itself is not extrem­
ely significant although with the seventh movement it becomes
more so. Up to this point the various lines have been defined
by different basic durations but here only one basic duration
is found. As a result they are now defined by orchestration.

Generally speaking the parameter of pitch in these
movements is not organized in a complex manner. Rather, the
tone row is, in most cases, merely repeated in its original
form while the parameter of duration is systematically ordered.
In movements II and VI B, Nono has even elected to employ
recursive sequences in the organization of duration rather than utilizing the more elementary arithmetic or geometric sequences. In movements V and VI can be found the only instances where the parameter of dynamics is organized according to a preconceived system.
CHAPTER V

VARIANTI

Varianti, commissioned by the radio station Südwestfunk of Baden-Baden, was written between November 1956 and April 1957 and is scored for solo violin, 10 violins, 8 violas, 8 cellos, 6 contrabasses, 3 flutes and 3 B-flat clarinets. It was first performed at Donaueschingen on October 20, 1957\(^1\) at which time the soloist was Rudolf Kolisch, to whom the composition is dedicated, and the orchestra was that of the Südwestfunk under the direction of Hans Rosbaud.

With Varianti, Nono has presented a composition that is highly complex and, as a result, extremely difficult to perform accurately. In fact, the score is so involved that it is questionable as to whether or not an exact performance is at all possible. Assuming that Nono was cognizant of the extremely high and perhaps even impossible demands put on the performers, could he not have intended that there be an approximate interpretation rather than an exact execution?

Although there is nothing in Nono's limited writings to suggest

\(^1\)Wilfried Brennecke, "Nono, Luigi," Die Musik in Geschichte und Gegenwart, IX (1961), Col. 1555.
that this is the case, would it not be possible that he has purposely created a score which is so complex that the variables in execution, that is, the parameter of indeterminacy, will play a significant role in the performance of the work? Even though obviously no one but Nono is able to say, this possibility should not be completely overlooked when investigating the organization of his compositions.

With each successive composition examined in this study there has been an increase in orchestral density. This is similarly the case with Varianti. In the four previous works, in order to accommodate this expanded density, the technique of polytimbral continuity had to be expanded and developed, with the number of polytimbral lines being increased as well. Il Canto sospeso presented polytimbral continuity in its most complex form and now, in Varianti, Nono is moving away from this technique.

For the first time in his compositional development, Nono in Varianti employs the concept of organization of blocks of sound, and these sound-blocks, as will be seen later, have features in common with the duplicated notes of the polytimbral lines of earlier works. Throughout Varianti Nono uses several different methods of constructing these block note-complexes that are somewhat similar to those described by
Pierre Boulez in his book *Boulez on Music Today*. As a result of the implementation of this sound block technique, G.W. Hopkins contends that "the work heralded one of Nono's most significant contributions to compositional techniques, which is reflected in much recent music built according to geometrical formations" and he suggests that this conception of music in *Varianti* "comes closest to an anticipation of the styles of such composers as Ligeti, Castiglioni and Penderecki." In a further explanation of this "geometrical" conception of music, Hopkins says that the block note-complex may be predetermined in respect to pitch and duration, after which the composer is free to manipulate the individual parts which go to make up the complex. However in *Varianti* this is not necessarily the case. As will become more evident through the analysis which is to follow, Nono organizes to varying degrees several different parameters within these block note-complexes and the selection of these parameters as well as the extent to which they are organized is altered

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4 Ibid.

5 Ibid.
at several points throughout the composition.

Similar to two earlier works, Canti per tredici and Incontri, the overall form of Varianti is based a palindrome. The central point of this 308 measure score is at bar 155 which is a measure of silence. Another measure of silence at bar 80 divides the first half of Varianti into two distinct and separate sections, measures 1 to 79 and measures 81 to 154, which for the sake of convenience shall be referred to as sections A and B respectively. It should be pointed out that when these two sections are presented in the retrograde half of the composition there is not a measure of silence between them as in the first half but merely a double bar line.

Although the concept of the palindrome is an integral part of the form of Varianti, this mirror structure is more complex than that employed in the two previous compositions. The following diagram presents the form of the palindrome structure of Canti per tredici and Incontri:

\[
\text{Canti per tredici: } A \rightarrow A \quad B \rightarrow B
\]
\[
\text{Incontri: } A \rightarrow B \rightarrow C \rightarrow C \leftarrow B \leftarrow A
\]

In Varianti however section A appears first in the retrograde half of the piece followed by section B which results in the following pattern:
Section:  A → B ← A ← B
Measures:  1-79  81-154  156-234  235-308

In presenting the retrograde forms of sections A and B, Nono is very accurate in creating a mirror image of the original statements. In fact, nearly every parameter is exactly reversed. The only discrepancy is found in the retrograde of section A where the bowing indications do not coincide completely with those employed in the first presentation.

The pitch series employed in Varianti has the same intervallic construction as that found in both Canti per tredici and Il Canto sospeso. However, the all-interval-row now begins on C whereas in the two earlier compositions it started on A.

1 2 3 4 5 6 7 8 9 10 11 12
C C# B D B♭ E♭ A E A♭ F G F♯

This pitch row is employed both in sections A and B of the composition.

As mentioned previously the two basic sections of Varianti, A and B, are separate and distinct from one another. They are contrasted by a change in the system of parametric organization and as a result these sections will be discussed
separately in the following analysis.

Section A

Throughout section A, the number series 1-2-3-4-5 plays a significant role in the system of parametric organization. Possibly the most important employment of this series can be seen in examining the division of section A into smaller segments. The measures are grouped together by means of double bar lines into units of from 1 to 5 measures in length. The following figure presents the ordering of these measure groupings, with the numbers representing the length of each individual segment.

Figure 10.— Organization of Measure Groupings in Section A of Varianti

<table>
<thead>
<tr>
<th>Measures 1 to 33</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo Violin and Orchestra</td>
</tr>
<tr>
<td>Orchestra only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measures 34 to 79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo Violin and Orchestra</td>
</tr>
<tr>
<td>Orchestra only</td>
</tr>
</tbody>
</table>

As can be seen from Figure 10, section A both commences and concludes with the arrangement of measure groupings 5 4 3 2 with only the orchestra playing. Between these two passages
there exists two series of segments the structure of which has been influenced by the concept of the palindrome. Beginning on measure 15, the solo violin and orchestra present the series of measure groupings, \(1 \, 2 \, 1 \, 3 \, 1 \, 4 \, 1 \, 5 \, 1\), which could possibly be considered a modified retrograde of the previous fourteen measures, that is, \(5 \, 4 \, 3 \, 2\). The following series of measure groupings that starts at bar 34 is in the form of a complete palindrome.

\[
\begin{array}{cccccccccccc}
1 & 5 & 3 & 2 & 4 & 1 & 4 & 2 & 2 & 3 & 5 & 1
\end{array}
\]

The central point of this passage occurs in the segment which is one measure in length and from that point on, the order of measure groupings is a reversal of that of the first half. There is however an irregularity in the last half of the palindrome where Nono has inserted an additional grouping of two measures in length. Interestingly enough, not only is there this palindrome of the actual number series which represents the length of the various measure groupings but there is also an inverted palindrome of orchestration. The measure groupings which in the first half are assigned to the orchestra only, in the retrograde contain both orchestra and solo violin; likewise the first half segments which contain solo violin and orchestra, in the second half are given to the orchestra only.
Certain organizational techniques, which will be further discussed later in this chapter, employed within each of the main passages 5 4 3 2, 1 2 1 3 1 4 1 5 1 and 1 5 3 2 4 1 4 2 2 3 5 1, tend to define even further one series of measure groupings from another. As has already been mentioned, the grouping of measures is probably the most significant single use of the number series 1-2-3-4-5 since this ordering of the measure groupings has an influence on the organization of certain parameters found within these individual groupings. In the following paragraphs the importance of this number series 1-2-3-4-5 in the organization of other parameters will become increasingly more evident.

As has been discovered in the works studied previously in this paper, Nono seldom employs a consistent organizational system completely throughout a composition. This is similarly the case in Varianti. The basic systems of parametric organization for section A are established in the first fourteen measures, that is, the first four measure groupings which are represented in Figure 10 by the number sequence 5 4 3 2. Here, the principles of organization are well defined and for the most part are closely observed. Although the organization systems established in the opening measures form the basis for parametric organization throughout the remainder of section A
they are neither closely nor consistently followed. While characteristic aspects of these systems are at certain points evident, at other times during this section they are modified or even abandoned completely. It should be stressed that even though certain systems of parametric organization are closely related, the degree to which each system is ordered throughout the section is independent from that of any other. The method and extent of organization through this section varies from one parameter to the next. Undoubtedly the most prevalent and possibly even the only feature these systems have in common with one another is that their structure is most clearly defined during the first fourteen measures of the section.

In Varianti Nono employs the concept of organization of sound-blocks. Although this technique is employed throughout the construction, there are two separate and distinct methods of construction, one method in each of the two sections, A and B, of the work. Throughout section A this sound-block technique consists of creating note-complexes with a varying group of instruments ranging from 1 to 5 in number and with each instrument playing the same tone. As each note in the complex has a different duration, there results a series of successive entrances and terminations of sounds. The following example presents the note complexes of the first measure grouping, that is, measures 1 to 5, of section A.
Example 1. Nono, Varianti, measures 1-6.
In a manner similar to that seen above, the score throughout section A is organized into blocks of sound with densities varying from 1 to 5. The density of these individual note complexes is clearly organized in conjunction with the measure-groupings and as a result there is a general overall ordering of the score with respect to density content within the measure-groupings. This can possibly be most clearly seen by examining the first fourteen measures of section A. As can be found in Example 1, the first segment or measure-grouping which is five measures in length contains note-complexes with densities of two, three, four and five voices. The next segment of four measures in length has sound-blocks of four, three and two voices while the following three measure segment consists of note-groupings of either three or two voices. The fourth measure-grouping of two measures in length contains only sound-blocks with two instruments. Nono has established the principle that the range of possible densities of the sound-blocks within a specific measure grouping is determined by the length in measures of that particular segment; that is, a note complex cannot contain a greater number of voices than the figure which represents the length of measures of the segment in which it is located. As a result of this rule, the general overall density of each
segment is governed by its length in that the longer the measure-grouping, the greater the density possible for each note-complex and thus the segment as a whole. This rule governing the range of employable densities of sound-blocks is followed closely throughout section A, although it should not be assumed that each different density within this range is utilized within each individual segment. Actually, Nono has been more selective in the use of these densities as further restrictions have been introduced during the course of the section. As a result, the relationship between sound-block density and segment length can only be completely understood by examining the density content of each measure grouping in Section A, which is present in the following table.
### TABLE 9

DENSITY OF THE SOUND-BLOCKS CONTAINED WITHIN EACH MEASURE-GROUPING OF SECTION A OF *VARIANTI*

<table>
<thead>
<tr>
<th>Segment Length</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
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<tbody>
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<td>1</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>29</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

**Note:** In every case, a sound block or note grouping is considered part of the measure grouping in which it begins.
As can be seen from Table 9, at no point in Section A does sound-block density exceed that determined by the length of the segment although in a number of places the complete range of possible densities is not used in its entirety. In the first four measure groupings the sound-block density of 1 is not employed and it is not until the introduction of the solo violin that a note is heard without simultaneous duplication. In segments 5 through 13, which represent what might be considered a modified retrograde of the previous four measure-groupings, the complete range of possible densities is used and there are no irregularities. Segment 15 marks the beginning of a significant change in density employment in that from this point until the end of the section only sound-blocks with the densities of either 5, 2 or 1 are used. The previously mentioned rule regarding possible sound-block densities is still in effect however it now applies only to three rather than five different densities. Throughout section A, most measure-groupings have contained sound-blocks of the greatest allowable density but three segments, 21, 22 and 29, contain only single notes while according to the system established, sound-blocks with a density of two voices were to be expected. Another irregularity in this technique of determining sound-block densities occurs in segment 25 when in fact no notes commence at all. Although the basic concept of relating
the organization of the measure-groupings to that of the
density of sound-blocks is prominent throughout, the irregu­
larities which occur in the second half of section A are
reminiscent of Nono's *modus operandi* in the organization of
earlier works where a system of determinants is established
and then eventually abandoned. A further example of this
can be seen in examining the frequency of employment of each
of the various densities within each separate measure-grouping.
While in many segments the distribution of densities is
relatively even, in certain measure-groupings, particularly
those in which the solo violin is present, the single note
appears a great many more times than the sound-blocks with
densities ranging from 2 to 5.

Before discussing further organization of the sound-
blocks of section A, it should be pointed out how these
multiple-voice, note-complexes are orchestrated. *Varianti*
is scored for solo violin, 10 violins, 8 violas, 8 cellos,
6 contrabasses, 3 flutes and 3 B-flat clarinets and while the
string instruments of the orchestra are employed throughout
section A, the woodwinds are found only in segments in which
the solo violin is present. There are two different basic
methods of orchestrating the sound-blocks and the principal
determining factor for the method to be employed is whether
or not the solo violin is present. The following example
illustrates these two methods.
Example 2. Nono, Varianti: (a) measures 7-8; (b) measure 25.
In Example 2 (a) it can be seen how the sound-blocks are orchestrated in measure-groupings where only the orchestra is employed. Within each setting of these note complexes, the instrumentation is homogeneous. This procedure is followed strictly throughout as there is not one sound-block in an orchestra-only segment in which two different types of instruments are employed. Up to this point in the discussion of sound-block densities within measure-groupings just involving orchestra, only the density content of each segment has been examined. However, it should be pointed out that the densities are ordered with respect to their position within the segment and this organization will be studied later in this chapter in conjunction with the examination of the parameter of pitch.

An illustration of the other technique of sound-block orchestration can be found in Example 2 (b) where this method is employed in setting every note-complex which appears in segments where the solo violin is present. These sound-blocks result from the duplication in the orchestra accompaniment of certain selected notes taken from the solo violin line. Obviously then, the solo violin is a constant voice in these note-complexes and the remaining parts are provided by certain string instruments of the orchestra. In a similar manner to the previous method discussed, these remaining voices are always
set with the same type of instrument within each sound block. It should also be pointed out that in every case the string instruments of the orchestra chosen to be a part of the note complex all employ harmonics in duplicating the same note in the solo violin presents normally.

This method of sound-block orchestration is somewhat reminiscent of the note duplications in the lines of poly-timbral continuity as found in the previous works. Not every note of the solo violin line is duplicated in the orchestra, rather, only certain selected notes are employed in conjunction with the multiple-voice sound-block technique. From an examination of the following table, one can more easily determine how frequently these multiple-note-complexes appear.
TABLE 10
FREQUENCY OF MULTIPLE-VOICE SOUND-BLOCKS
IN MEASURE-GROUPINGS INVOLVING BOTH
SOLO VIOLIN AND ORCHESTRA IN SECTION
A OF VARIANTI

<table>
<thead>
<tr>
<th>Solo Violin and Orchestra Measure Grouping</th>
<th>Length</th>
<th>Number of Multiple-Voice Sound-Blocks</th>
<th>Total Number of Solo Violin Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
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<td>22</td>
<td>2</td>
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<td>7</td>
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<tr>
<td>23</td>
<td>3</td>
<td>4</td>
<td>15</td>
</tr>
</tbody>
</table>

As can be seen from Table 10, there are only seven measure groupings involving solo violin and orchestra in which multiple voice sound blocks appear and they are segments 6, 8, 10, 12, 15, 18 and 23. The distribution of these note complexes in relation to the solo violin line of the above segments is presented in Figure 11.
Figure 11.— Arrangement of Multiple-Voice Sound-Blocks in Measure-Groupings Involving Both Solo Violin and Orchestra in Section A of Varianti

<table>
<thead>
<tr>
<th>Measure Grouping</th>
<th>Solo Violin Pitches</th>
<th>Sound Block Densities</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>F# B D# E F C D B♭ A E</td>
<td>2 2 1 1 2 2 1 1 2 2</td>
</tr>
<tr>
<td>8</td>
<td>F# B A G C# D E♭ A♭ C B♭ E F F# B</td>
<td>2 3 2 2 1 1 2 3 3 2 1 1 2 3</td>
</tr>
<tr>
<td>10</td>
<td>F# D G# C# E♭ A♭ F C D E C E♭ F C# B B♭</td>
<td>3 4 4 3 1 1 1 1 3 4 4 3 2 1 1 1</td>
</tr>
<tr>
<td>12</td>
<td>B E♭ F B C# A G C# D B♭ A F E♭ F#</td>
<td>2 3 4 5 5 4 3 2 1 1 2 3 4 5</td>
</tr>
<tr>
<td>15</td>
<td>E♭ F# C# A F B♭ E♭ G# C# D D</td>
<td>5 1 1 1 2 2 1 1 1 5 5</td>
</tr>
<tr>
<td>18</td>
<td>C B G# G B♭ A C# D E♭ A F# B G# F F# B♭ A</td>
<td>1 1 2 1 1 2 1 1 2 1 1 1 1</td>
</tr>
<tr>
<td>23</td>
<td>A F C B B♭ A♭ F# E♭ A G# G B♭ E♭ A♭ G</td>
<td>1 2 1 1 2 1 1 2 1 1 1 1 1</td>
</tr>
</tbody>
</table>

Measure Grouping 6
Solo Violin Pitches | F# B D# E F C D B♭ A E
Sound Block Densities | 2 2 1 1 2 2 1 1 2 2

Measure Grouping 8
Solo Violin Pitches | F# B A G C# D E♭ A♭ C B♭ E F F# B
Sound Block Densities | 2 3 2 2 1 1 2 3 3 2 1 1 2 3

Measure Grouping 10
Solo Violin Pitches | F# D G# C# E♭ A♭ F C D E C E♭ F C# B B♭
Sound Block Densities | 3 4 4 3 1 1 1 1 3 4 4 3 2 1 1 1

Measure Grouping 12
Solo Violin Pitches | B E♭ F B C# A G C# D B♭ A F E♭ F# |
Sound Block Densities | 2 3 4 5 5 4 3 2 1 1 2 3 4 5

Measure Grouping 15
Solo Violin Pitches | E♭ F# C# A F B♭ E♭ G# C# D D |
Sound Block Densities | 5 1 1 1 2 2 1 1 1 5 5 |

Measure Grouping 18
Solo Violin Pitches | C B G# G B♭ A C# D E♭ A F# B G# F F# B♭ A |
Sound Block Densities | 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 |

Measure Grouping 23
Solo Violin Pitches | A F C B B♭ A♭ F# E♭ A G# G B♭ E♭ A♭ G |
Sound Block Densities | 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 1
Although all of the palindrome relationships suggested in Figure 11 may not be entirely valid, there does seem to be a conscious attempt by Nono to employ this type of symmetrical arrangement in ordering the appearance of the sound-block densities. Possibly the most convincing illustration of the existence of palindrome ordering can be seen in measure-grouping 12, that is measures 28 to 32, which is presented in the following example.
In spite of the fact that the numerous single notes in the orchestra tend to conceal this ordering from the listener, there can be little doubt that the concept of the palindrome plays a significant role in the organization of densities in this particular measure grouping.

The organizational system for the parameter of duration in section A is linked very closely to the sound-block technique. There are two fundamental components essential to this method of ordering: basic duration and duration multiple. For the sake of clarity in presentation, the employment of the factor of basic duration will be examined initially before the element of duration multiple is discussed.

In section A there are five different possible divisions of the unit beat, that is, by 3, 4, 5, 6 or 7, which results in the five basic durations of $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$ and $\frac{1}{7}$. Since polytimbral continuity is not utilized in Varianti, the basic duration to be employed for a specific note can no longer be determined obviously by the polytimbral line. It is now determined in accordance with a system of basic duration ordering which can be more clearly understood through studying the following example.
As can be seen in Example 4 which presents the first measure grouping of section A, the basic duration content within each of the four different multiple-voice sound-blocks is strictly organized. The five-voice note-complexes employ each of the five different basic durations while with each successively less dense sound block, the largest of the remaining basic durations is omitted which results in the following pattern:

<table>
<thead>
<tr>
<th>Voices</th>
<th>Duration 1</th>
<th>Duration 2</th>
<th>Duration 3</th>
<th>Duration 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>(\frac{1}{7})</td>
<td>(\frac{1}{7})</td>
<td>(\frac{1}{7})</td>
<td>(\frac{1}{7})</td>
</tr>
<tr>
<td>4</td>
<td>(\frac{1}{6})</td>
<td>(\frac{1}{6})</td>
<td>(\frac{1}{6})</td>
<td>(\frac{1}{6})</td>
</tr>
<tr>
<td>3</td>
<td>(\frac{1}{5})</td>
<td>(\frac{1}{5})</td>
<td>(\frac{1}{5})</td>
<td>(\frac{1}{5})</td>
</tr>
<tr>
<td>2</td>
<td>(\frac{1}{4})</td>
<td>(\frac{1}{4})</td>
<td>(\frac{1}{4})</td>
<td>(\frac{1}{4})</td>
</tr>
</tbody>
</table>

The basic duration content of every sound-block in the first four measure-groupings complies with this ordering and also for the most part the actual arrangement in the score coincides with that presented above in that, as a general rule, within a sound-block the smaller the basic duration of a note the higher that note appears on the page.

Now that the multiple voice note-complexes with orchestra only have been studied, the basic duration content of multiple-voice sound-blocks involving the solo violin should
be examined. For approximately the first half of section A the basic duration content of these sound-blocks is identical to that of the orchestra-only note-complexes although the arrangement of the basic durations within these sound-blocks differ considerably. Although not in every case, Nono generally gives the solo violin the largest possible basic duration and the remaining basic durations are employed in the orchestra in a manner which is similar to that found in the orchestra-only sound-blocks. This results in the following arrangement:

<table>
<thead>
<tr>
<th>Solo Violin</th>
<th>1/3</th>
<th>1/4</th>
<th>1/5</th>
<th>1/6</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 voices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orchestra</td>
<td>1/7</td>
<td>1/7</td>
<td>1/7</td>
<td>1/7</td>
</tr>
<tr>
<td></td>
<td>1/6</td>
<td>1/6</td>
<td>1/6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1/5</td>
<td>1/5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A good illustration of this can be found in the following example.
The irregularity of basic duration content in the two-voice sound-block of Example 5 is but one of a number of similar such instances in section A resulting from a problem with regard to the employment of the solo violin. In order to achieve a continuity in the solo violin line, many notes of varying basic duration and duration multiple are presented in succession without interruption and as a result many times the notation of the correct basic duration is not possible within the accepted traditional notation system. An excellent illustration of this can be seen in Example 5 where in order to accommodate the ordering of the three-voice note-complex, the solo violin in the preceding two-voice sound-block must employ the basic duration of $\frac{1}{5}$ rather than the normal $\frac{1}{6}$.

Due to the organizational procedure in section A that the length of a measure-grouping determines in part the density of the sound-blocks contained within the segment and, in turn, the principle that this density determines the basic duration content, there rather obviously exists the relationship that the length of a measure-grouping determines what the basic duration content of that specific segment is going to be. For instance, in a segment four measures in length, only sound-blocks with densities of from 1 to 4 voices are employed and as
a result only basic durations $\frac{1}{4}$ through $\frac{1}{7}$ are found. In contrast to the specific ordering of basic duration content within multiple-voice sound-blocks, the single notes employ a variety of basic durations. For approximately the first half of section A the boundaries of basic duration content for each measure-grouping established through the use of multiple voice sound-blocks are followed for the most part by the single notes of the segment as well. Therefore in a four measure segment, the single notes also employ only basic durations ranging from $\frac{1}{4}$ to $\frac{1}{7}$. While there is this restriction on the basic durations used by single notes in a measure-grouping, the ordering in which these basic durations appear is not regulated but rather they are employed freely. The following table presents the basic duration content of every measure-grouping in section A.
TABLE 11
EMPLOYMENT OF BASIC DURATIONS IN SECTION A OF VARIANTI

<table>
<thead>
<tr>
<th>Measure Grouping</th>
<th>Length</th>
<th>Multiple Voice Sound Blocks</th>
<th>Single Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Solo-Violin</td>
<td>Orchestra</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>1-1-1-1-1</td>
<td>7 6 5 4 3</td>
</tr>
</tbody>
</table>
Aside from the irregularities of basic duration in the solo violin line mentioned in conjunction with Example 5, the basic duration content of the first fourteen measure groupings of section A complies with the previously discussed principles of ordering. However, at segment 15, there is a fundamental change in this system of organization which, significantly, coincides with the alteration in the ordering of sound-block densities as seen in Table 9. In this fifteenth measure-grouping, the segment in which the restriction of sound-blocks to those with densities of 5, 2 and 1 begins, the basic duration content of two-voice note-complexes is changed from $\frac{1-1}{7} \frac{6}{5}$ to $\frac{1-1}{7} \frac{5}{6}$. This modification is now in effect for the remainder of the section. Also in segments 18, 20, 24, 26 and 27, a new
pairing $1\frac{1}{2}$ is employed in addition. The only exception to $rac{6}{4}$ this new method of ordering can be found in segment 23, the first measure of which can be seen in the following example.

In measure 58, Nono briefly reverts back to the original basic durations of \( \frac{1}{7} \) and \( \frac{1}{6} \), however this is only an isolated instance as the \( \frac{1}{7} - \frac{1}{5} \) combination returns and is prominent throughout the rest of the section.

In spite of the new basic duration content of the two-voice sound-blocks, the number of different basic durations employed within each measure-grouping of the second half of section A is in the majority of cases equivalent to the length in measures of the specific segment involved. The only exceptions to this rule are found in segments 17, 22, 25 and 29. The irregularities of basic duration in the solo violin found in the first half of the section appear in the second half as well. Another interesting although not frequent type of discrepancy in basic duration content can be seen in segment 16 which is presented in Example 7.
Example 7. Nono, Varianti, measures 40-42.
Throughout this three measure segment, the arrangement of $\frac{1}{7}\cdot\frac{1}{5}$ for the two voice sound-blocks and $\frac{1}{6}$ for the single notes is followed strictly. There is however one irregularity and it can be found in measure 40 where the second contrabass presents one note having the basic duration of $\frac{1}{5}$. This type of irregularity, a slight deviation from the established organizational system, has by now become an accepted characteristic of Nono's method of parametric organization.

As mentioned earlier, each note in section A can be expressed as the result of one of the five basic durations multiplied by a duration multiple. The duration multiples range from 1 to 12 and their employment in conjunction with the basic durations is illustrated in the next example.
Only one duration multiple is utilized within any single specific sound block throughout the section. This practice clearly refers back to the duplicated notes of the polytimbral lines where the same duration multiple was employed. The actual note durations of the sound-blocks are different now due to the fact that various basic durations are used. This was not the case with polytimbral continuity.

As can be observed from studying Example 8, there is not a strict ordering of duration multiples but rather the multiples are distributed more or less evenly and freely throughout the measure-grouping here and throughout the remainder of section A. Although multiple appearance within the measure-groupings is not systematically organized, a distinct ordering of duration multiple content of these segments can be observed in examining the following table.
Although numerous inconsistencies exist, there is, without a doubt, sufficient evidence in Table 12 to support the statement that the length of a measure-grouping determines in part the multiple content employed within. While the
duration multiple content of the single measure segments is constantly changing, the range of multiples found in segments of from two to five measures in length is systematically regulated; the longer the segment, the greater the number of different multiples possible. The first four measure-groupings of the composition establish the pattern of multiples used in relation to the length of the segments, which is as follows:

TABLE 13

<table>
<thead>
<tr>
<th>Length of Segment</th>
<th>Range of Multiples</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1 to 11</td>
</tr>
<tr>
<td>4</td>
<td>1 to 10</td>
</tr>
<tr>
<td>3</td>
<td>1 to 9</td>
</tr>
<tr>
<td>2</td>
<td>1 to 7</td>
</tr>
</tbody>
</table>

This scheme is altered slightly in measure-grouping 12 at which point the multiple 12 first appears and as a result the range 1 to 11 is obviously increased to 1 to 12 which becomes the accepted content for each of the remaining segments of five measures in length. The relationship presented in Table 13, taking into consideration the above modification,
is followed generally throughout section A, although in several segments there are certain omissions. In measure-groupings 4, 20 and 21 the multiples 5, 9 and 7 respectively are missing while in segment 29, three expected multiples 1, 5 and 6 are not presented. The only other irregularity appears in measure-grouping 22 which is the segment that has been added to distort the previously mentioned palindrome of measure-grouping lengths.

Another factor governing the employment of duration multiples can be found in examining their presence with respect to the sound-blocks of various densities. The following table presents the multiple content of the first four segments as used by the different multiple-voice note-complexes.

### Table 14

<table>
<thead>
<tr>
<th>Density of Sound Block</th>
<th>Multiples Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 10, 11</td>
</tr>
<tr>
<td>4</td>
<td>1, 2, 4, 5, 6, 7, 9, 10</td>
</tr>
<tr>
<td>3</td>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9</td>
</tr>
<tr>
<td>2</td>
<td>1, 2, 3, 4, 5, 6, 7</td>
</tr>
</tbody>
</table>
As can be seen above, the range of duration multiples employed by the various sound blocks is identical to that found in Table 13. Therefore it can be said that by means of the same numerical relationship, sound-block density and measure-grouping length both are determining factors in the employment of duration multiples.

The number series, 1-2-3-4-5 gains more significance when, in studying the tempo indications of section A of Varianti, it is discovered that five basic markings, 104, 80, 76, 60 and 52 are employed. Transitions between these tempo levels are made possible through the use of accelerandi and rallentandi and the frequent tempo changes in this section greatly increase the already difficult task of performing the score. As each of these tempo indications is in common use today, there appears to be little significance in Nono's decision to employ specifically these five numbers, however, it is interesting to note that each of these terms is a multiple of 4 and also that the difference between each of these terms can be reduced to the number series, 6, 1, 4, 2 respectively. Although an overall system of tempo organization is not apparent, in certain segments a relationship between sound block density and tempo presentation is suggested. As can be seen in Example 1, the first measure-groupings of Varianti begins at the tempo of quarter note = ca.80 which is incidentally the slowest point
in the segment. An increase then in note-complex density is accompanied by an *accelerando* which leads to the marking of quarter note = ca.104 and more five-voice sound-blocks. This concept of relating the employment of sound-block density to that of tempo indication so that the greater the density of the note-complexes being used at any given time the faster the tempo marking, is also hinted at in several other segments. However these are relatively isolated examples and as a result their importance is slight when considering tempo employment of the entire section.

In examining the compositions earlier in this study it was discovered that at no point in these works does Nono employ the "classic" Viennese twelve tone system and this is similarly the case with *Varianti*. The parameter of pitch in section A is not organized in a highly sophisticated manner and, as a matter of fact, it appears as though Nono has employed the tone row of C, C-sharp, B, D, B-flat, E-flat, A, E, A-flat, F, G, F-sharp in such a manner as again primarily to ensure a relatively even distribution of the pitches. The technique of pitch organization varies slightly from segments involving just orchestra to those containing both orchestra and solo violin and as a result these two methods will be treated separately.

In measure-groupings where only the orchestra is present, the tone row is generally stated completely, although
not necessarily following the basic ordering of the series. A good illustration of this can be found in examining the first measure-grouping of the composition which is presented in the next example.
This method of unordered presentation is continued throughout the orchestral segments. Although there are a few pitch omissions in series statements of certain measure-groupings, these do not occur frequently enough to warrant special attention as the outline and concept of the row is still evident.

While discussing the pitch ordering of the orchestral segments, it should be mentioned that the presentation of pitch series in these measure-groupings determines to a certain extent the location of specific sound-block densities within the segments involved. The first four measure-groupings of section A present eight complete row statements followed by the first eight notes of a ninth series. The following table presents the sound-block density for each of these pitches.

TABLE 15

RELATIONSHIP OF PITCH TO SOUND-BLOCK DENSITY IN ORCHESTRAL SEGMENTS OF SECTION A OF VARIANTI

<table>
<thead>
<tr>
<th>Pitch number</th>
<th>Sound-Block Densities Found in Row Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 2 5 3 4 2 2 2 2</td>
</tr>
<tr>
<td>2</td>
<td>5 2 5 3 4 3 2 3 2</td>
</tr>
<tr>
<td>3</td>
<td>5 2 5 3 4 3 2 3 2</td>
</tr>
<tr>
<td>4</td>
<td>5 2 5 2 4 3 3 3 2</td>
</tr>
<tr>
<td>5</td>
<td>5 3 5 2 4 4 3 3 2</td>
</tr>
<tr>
<td>6</td>
<td>4 3 5 2 4 4 3 3 2</td>
</tr>
<tr>
<td>7</td>
<td>4 3 5 2 4 4 3 3 2</td>
</tr>
<tr>
<td>8</td>
<td>4 4 5 3 4 3 3 3 2</td>
</tr>
<tr>
<td>9</td>
<td>4 4 4 3 3 3 3 3 2</td>
</tr>
<tr>
<td>10</td>
<td>3 4 4 3 2 3 2 2 2</td>
</tr>
<tr>
<td>11</td>
<td>3 4 4 4 2 3 2 2 2</td>
</tr>
<tr>
<td>12</td>
<td>3 5 4 4 2 2 2 2 2</td>
</tr>
</tbody>
</table>
It appears obvious that Nono, in determining the density of a specific row complex, followed closely the ordering of pitches as they apply to the tone row. There is at all times throughout these four segments a step by step movement from one density level to another and if the successive repetitions of densities are reduced, the following scheme of levels results:

Density level

<table>
<thead>
<tr>
<th>Density</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Successive Presentations</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

As has been illustrated in the above diagram the structure of the series of density levels is based on five successive palindromes consisting of 5, 4, 4, 3 and 3 densities respectively. It is interesting to note the actual numbers chosen by Nono for density level repetitions; with only one exception, the density of three is presented three, or a multiple thereof, times in succession and similarly the densities of two and four are presented four, or a multiple thereof, times in a row. To a limited extent, the ordering of repetitions is also based on palindrome figures however the numerous irregularities reduce the significance of this.

In measure-groupings which contain solo violin, pitch organization is centered around the solo line. This can be seen through studying Example 10 which presents the solo violin
part of segment 18, that is, measure 45 to 48.


Although the parameter of pitch in this line is not strictly organized, there are certain restrictions put on pitch content. While specific pitches are not systematically determined, the solo violin part is divided into abstractly defined small groups of from one to five notes in length which represent incomplete row statements. In Example 10, five pitch groups or more correctly, series fragments, are presented, containing 4, 2, 5, 4 and 3 notes respectively. While certain pitches which were omitted from the incomplete solo violin row statements are presented in a seemingly arbitrary fashion in the orchestra part, by no means can it be said that there are complete and well defined row statements in segments involving solo violin, as is the case in the measure groupings containing only orchestra. However, in every solo violin segment, the technique of presenting incomplete row fragments of from one
to five notes in length is clearly evident. While there is a relatively even distribution, there does not appear to be any specific, systematic ordering of the lengths of these fragments.

The application of the parameter of register in section A, though not ordered in a complex manner, is related somewhat to sound-block density in that the variety of registers possible to be employed by a note-complex is determined in part by the density of that specific sound complex.

**TABLE 16**

**RANGE OF REGISTERS EMPLOYED BY SOUND-BLOCKS IN THE FIRST FOUR SEGMENTS OF *VARIANTI***

<table>
<thead>
<tr>
<th>Sound Block Density</th>
<th>Highest Note Employed</th>
<th>Lowest Note Employed</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>3 octaves &amp; dim. 7th</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>4 octaves</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>4 octaves &amp; Perfect 4th</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>5 octaves &amp; Major 2nd</td>
</tr>
</tbody>
</table>

It can be seen that the less dense the sound-block, the larger the registral range possible and also the less dense the note-complex, the lower the range of the notes possible. Although
this general procedure for controlling the register content is of little significance in itself in a study of parametric organization, it does illustrate if only slightly further the importance of the sound-block density ordering and its role in determining in part the employment of other parameters.

By this point in the examination of section A, it should be quite clear that the underlying principle of parametric organization here is not one of systematic ordering but rather of defining the content or range of parameter employment within either the individual sound-block or measure-grouping or in certain cases both and then proceeding within these bounds. This has generally been the rule with parameters discussed up to this point and it is definitely the procedure followed with respect to the parameter of dynamics. The range of possible employable dynamic levels is defined for both sound-blocks and measure-groupings.

In section A, six basic dynamic levels, ppp, p, mp, mf, f and fff, are found and, through the use of crescendi and decrescendi, another eighteen single event markings are created. As can be seen in Example 1, each single note of a sound-block has its own specific dynamic marking which may or may not be the same as the other notes of that particular note complex. Although there are many different combinations of dynamics within the various sound-blocks it should be realized that
certain note-complexes do have identical markings. A good illustration of this can be found in the first measure of the composition where the note-complexes on B-flat and D both have the dynamics \( f \leq fff, \text{mp,} f, \text{mf} \text{ and } fff \geq f. \)

While sound-blocks with the same markings can be found throughout the section, no overall system of ordering in their placement is apparent.

Through an examination of the first four segments of the composition, it can be determined that, considering the six basic dynamic levels, the content of possible dynamics for each of the four sound-block densities is specifically defined. The ranges of dynamics employed in these note-complexes are found in the following chart.

\[
\begin{align*}
\text{fff} & \quad \text{fff} \\
\text{f} & \quad \text{f} \\
\text{mf} & \quad \text{mf} \\
\text{mp} & \quad \text{mp} \\
\text{p} & \quad \text{p} \\
\text{PPP} & \quad \text{PPP} \\
\end{align*}
\]

5 voice sound blocks

4 voice sound blocks

3 voice sound blocks

2 voice sound blocks

It should be stressed that the above chart presents ranges of dynamics that are used with individual levels within the ranges being variable.
As has already been stated, the range of basic
dynamic levels for use within specific measure-groupings is
also defined and this can be determined through examining
the dynamics employed in each segment of the section.

**TABLE 17**

**DYNAMIC LEVELS EMPLOYED WITHIN
MEASURE-GROUPINGS OF SECTION A OF
VARIANTI**

<table>
<thead>
<tr>
<th>Measure Grouping</th>
<th>Length</th>
<th>ppp</th>
<th>p</th>
<th>mp</th>
<th>mf</th>
<th>f</th>
<th>fff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>x</td>
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<td>4</td>
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<td>24</td>
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<td>x</td>
<td>x</td>
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<tr>
<td>25</td>
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<tr>
<td>26</td>
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<td>x</td>
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<td>3</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>2</td>
<td>x</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
While the segments one measure in length have a constantly varying content of dynamic levels, this is not the case with the measure-groupings of from two to five measures in length. With the exception of measure-grouping 22 where an mf is present, these multiple measure segments employ basic dynamic levels the ranges of which are very similar to those of the sound-blocks.

In most measure-groupings, all dynamics within these ranges are used. As mentioned already, there are eighteen variants of the six basic dynamic levels and they are ppp<>>, p<>>, mp<>>, mf<>>, ppp< p, p>ppp, ppp< mp, mp>ppp, ppp< mf, mf>ppp, p< mf, mf>p, p< mp, mp>p, mf< f, f>mf, f<fff and fff> f. A couple of irregularities occur, however it is possible to justify them as being the result of printing errors. A good illustration of this can be seen in segment 1 where in measure 5, viola 7 has a single event
marking of, mf ppp which undoubtedly should be mf ≥ ppp. These eighteen variants are employed following the limitations established by the ranges of the basic dynamic levels. For example, in a segment two measures in length, only dynamic variants utilizing the levels mp, p or ppp could be employed.

In addition to the means discussed already, the sound-blocks of section A can also be distinguished one from another through their employment of the performance techniques of *am Steg*, *flautato* and direction of bow stroke. These variables, while not being totally organized, exhibit a certain vague relationship between their employment and that of the dynamics. In the study of the organization of dynamic levels it was pointed out that certain note-complexes throughout section A have identical dynamic markings. In the first four measure groupings, there are 104 sound-blocks and of this total, 74 individual note-complexes have at one point their exact dynamic ordering duplicated in another block. The following example presents two of these 74 sound-blocks.
The two sound-blocks outlined in the above example both have the dynamic pattern of ppp $\leftrightarrow$, mp$\rightarrow$ ppp, p $\leftrightarrow$ and ppp $\leftarrow$mp. However, this is not the only variable ordering they have in common since the top note in both sound-blocks is played *flautato* while the remaining tones are performed normally. Throughout section A, Nono presents sound-blocks with either none, one or two notes played *flautato* and the position of these *flautato* tones are frequently varied. For example, in sound-blocks containing three notes, the following arrangement of performance indications are possible:

\[
\begin{array}{ccc}
n. & n. & fl. \\
n. & n. & n. \\
n. & fl. & n. \\
\end{array}
\quad
\begin{array}{ccc}
n. & fl. & n. \\
n. & fl. & fl. \\
n. & fl. & fl. \\
\end{array}
\quad
\begin{array}{ccc}
n. & fl. & fl. \\
n. & fl. & n. \\
n. & n. & n. \\
\end{array}
\]

There are similar arrangements of *flautato* and *normal* with sound-blocks of other densities. The significant point in the employement of these arrangements is that with every duplication of dynamic ordering of the previously mentioned 74 sound-blocks, the exact same *flautato-normal* ordering is also present.

The two note-complexes of Example 11 also have the same ordering of bowing indications which is $\checkmark$ $\checkmark$. In spite of the fact that there is an extremely great variety of combinations possible, in most cases where the dynamic ordering of two
sound-blocks is identical, the ordering of bowing indications is likewise the same.

The performance indication of am Steg is employed consistently throughout a note-complex and as a result only two possibilities are available, either the complete sound-block is played am Steg or normal. The two note-complexes of Example 11 are both performed without am Steg and in many cases, the dynamic duplications of the other 72 sound-blocks are similarly accompanied by a duplication of either am Steg or normal performance markings. There can be no doubt that the coinciding duplication of dynamics with the performance indications of flautato, am Steg and bowing were intended by Nono and although this is not a structured organizational system, it does show to a certain extent an effort to relate one to another the employment of these different variables.

In reviewing the parametric organization of section A, there can be no doubt that the fundamental technique utilized is one of defining the content or range of parameter employment within either the individual sound-block or measure-grouping or both. The number series 1-2-3-4-5 plays an important role in the construction of the series of measure-groupings and it is the length of these segments which is a determining element of their sound-block density. The structural significance of these two factors, sound-block density and measure-grouping
length, is great. The former determines in part the basic duration, duration multiple, register and dynamic level content of the individual sound-blocks while the latter likewise determines in part the basic duration, duration multiple, register and dynamic level content for the individual measure-groupings. Relationships of organization also exist between tempo and sound-block density as well as between sound-block density and pitch.

Similar to the other compositions examined in this study, the palindrome frequently appears in the parametric organization of section A of *Varianti*. Palindrome structures can be seen in the ordering of measure-grouping lengths, the arrangement of multiple-voice sound-blocks in the solo violin segments as well as in the series of sound-block density levels with respect to the pitch row. In concluding this discussion of section A, it must be emphasized that, as expected, there are not any systems of organization strictly employed here in a consistent manner since irregularities in every instance eventually appear.

**Section B**

With the commencement of section B at measure 81, a completely new system of parametric organization is introduced. While throughout *Varianti* both number series 1 to 5
and 1 to 12 are utilized in structuring the parameters, the former is more significant in section A while the latter is most prominent in section B, as will be discovered in the analysis to follow.

Although the second section is divided into smaller segments, the measure-groupings are not consistently ordered in conjunction with the series 1-2-3-4-5 as was the case in section A. The number sequence 5, 1, 4, 2, 3, 4, 5, 21, 15, 1, 4, 3, 6 represents the length of the successive measure-groupings of this section and as can be seen there are three segments which are longer than the previously accepted maximum duration. It is obvious that Nono is not concerned here about a systematic and symmetrical ordering of lengths as has been the procedure up to this point in the composition. In contrast to section A where segment length was a determining factor in the organization of other parameters, in section B this is no longer the case.

In section B, the sound-block densities vary, containing from 1 to 12 pitch cells in number. There are two distinct types of note-complexes presented: one, a horizontal statement by the solo violin and the other being a relatively vertical presentation by the orchestra. These two types are ordered in the following manner, with the numbers representing the densities of the various sound-blocks in the section.
The symmetry of these two density series is obvious as the first six terms of the solo violin, an increasing row of odd integers, are identical to numbers 7 through 12 of the orchestra, a decreasing row of even integers, coincide with the last six of the solo violin. There is an overlapping of note-complexes in the score as the orchestral sound-block starts first and before it is concluded the solo violin begins. In every case, with the exception of orchestral block density 9, the orchestra does not proceed with its note-complex until the preceding solo violin sound-block is completed. As a result there is a pairing of orchestral and solo violin note-complexes, with the total density in each instance adding up to 13 pitch cells.

The paring of sound-blocks and also the ordering of note-complex densities are important factors in the organization of the parameter of pitch. In the next example, the first two sound-blocks of section B are presented.
Example 12. Nono, Varianti, measures 79-84.
The distribution of the thirteen pitch cells of this pairing is such that the first note-complex contains all twelve notes of the tone row with the solo violin sound-block duplicating one of these pitches which happens in this case to be C natural, note number 1, of the series. This practice of having every note of the tone row as well as one duplication contained within a note-complex pairing is continued throughout the remainder of the section. In the following diagram the pitch ordering for each sound-block pairing of section B is presented, with the duplicated pitch being circled.
Figure 12.— Pitch Ordering of Solo Violin and Orchestra Sound-Blocks of Section B of Varianti

<table>
<thead>
<tr>
<th>Pairing Density</th>
<th>Orchestra Pitches in Order of Appearance</th>
<th>Density</th>
<th>Solo Violin Pitches in Order of Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$E_b$ F# A E $B_b$ A C C# B G D F</td>
<td>1</td>
<td>C</td>
</tr>
<tr>
<td>2</td>
<td>B F $E_b$ G# A D G C# E $B_b$</td>
<td>3</td>
<td>F# C C#</td>
</tr>
<tr>
<td>3</td>
<td>$B_b$ E $B_b$ E F $A_b$ A D</td>
<td>5</td>
<td>G F# C C# B</td>
</tr>
<tr>
<td>4</td>
<td>A $B_b$ D E $E_b$ G#</td>
<td>7</td>
<td>F G F# C C# B D</td>
</tr>
<tr>
<td>5</td>
<td>$E_b$ $B_b$ E A</td>
<td>9</td>
<td>G# F G F# C C# B D $B_b$</td>
</tr>
<tr>
<td>6</td>
<td>$E_b$ A</td>
<td>11</td>
<td>E G# F G F# C C# B D $B_b$ $B_b$</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>12</td>
<td>E G# F G F# C C# B D $B_b$ $B_b$ A E</td>
</tr>
<tr>
<td>8</td>
<td>$A_b$ $E_b$ F</td>
<td>10</td>
<td>G F# C C# B D $B_b$ $E_b$ A E C#</td>
</tr>
<tr>
<td>9</td>
<td>G# G F F# C</td>
<td>8</td>
<td>C# B D $B_b$ $E_b$ A E G#</td>
</tr>
<tr>
<td>10</td>
<td>D F D G C C# F#</td>
<td>6</td>
<td>$B_b$ $E_b$ A E G# F</td>
</tr>
<tr>
<td>11</td>
<td>A $E_b$ B $B_b$ D C# G F# B</td>
<td>4</td>
<td>E G# F G</td>
</tr>
<tr>
<td>12</td>
<td>C $E_b$ A $B_b$ C# F# F D G# E B</td>
<td>2</td>
<td>G F#</td>
</tr>
</tbody>
</table>

○ indicates the duplicated pitch
In examining Figure 12, it can be found that the solo violin line is strictly ordered and it is this organization which in turn is a determining factor in the definition of pitch content of the orchestra sound-blocks. In each solo violin note-complex, pitch movement coincides with the actual step by step progression of the basic row, with tone number 12 being followed in every case by the first note of the series. Possibly the most significant element in the pitch organization of the solo violin sound-blocks is that every note-complex is structured so that the final pitch of each of the twelve successive solo violin blocks present in consecutive order the twelve notes of the basic tone row. As can be seen in Figure 12, all of the twelve final notes, with the exception of the E-natural in the solo violin sound-block of pairing 8, are also emphasized by being duplicated in the corresponding orchestral sound-block.

Although the pitches of the orchestra note-complexes are not systematically ordered in appearance with respect to the tone row, the pitch content for each sound-block, which is presented in the next figure, is specifically defined.
Figure 13.— Pitch Content of Solo Violin and Orchestra Sound-Blocks in Section B of *Varianti*

<table>
<thead>
<tr>
<th>Pairing</th>
<th>Density</th>
<th>Orchestra</th>
<th>Solo Violin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>ifacts</td>
<td>⋄</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>⋄</td>
<td>⋄</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>⋄</td>
<td>⋄</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>⋄</td>
<td>⋄</td>
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<td>4</td>
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<td>⋄</td>
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<td>⋄</td>
</tr>
<tr>
<td>11</td>
<td>9</td>
<td>⋄</td>
<td>⋄</td>
</tr>
<tr>
<td>12</td>
<td>11</td>
<td>⋄</td>
<td>⋄</td>
</tr>
</tbody>
</table>

○ indicates the duplicated pitch
Each orchestra note-complex contains the tones of the row which are not presented by the corresponding solo violin sound-block of the pairing, as well as an added pitch which is in every case the previously mentioned note of duplication. This procedure is followed strictly throughout section B with the only irregularities, which are to be expected, occurring in pairing 10 and 11. In the orchestral block of the tenth pairing there are two D-naturals whereas one of these should have been a B-natural and similarly in pairing eleven, one of the two B-naturals should be a C-natural.

In the employment of the parameter of dynamics, twelve different dynamic patterns, listed below, are utilized.

1. \( p \gg \text{ppp} \quad \text{fff} \)
2. \( \text{fff} \quad \text{ppp} \ll \text{p} \)
3. \( \text{mp} \gg \text{p} \quad \text{f} \)
4. \( \text{f} \quad \text{p} \ll \text{mp} \)
5. \( \text{mp} \quad \text{mf} \)
6. \( \text{mf} \quad \text{mp} \)
7. \( \text{ppp} \)
8. \( \text{ppp} \ll \gg \)
9. \( \text{p} \)
10. \( \text{p} \ll \gg \)
11. \( . \quad \text{mp} \)
12. \( \text{mp} \ll \gg \)
The most obvious comment that can be made about the above patterns regards the presence of retrograde forms, with number 2 being a retrograde of 1, number 4, of 3 and number 6, of 5. These twelve patterns are developed from the same basic dynamic levels, ppp, p, mp, mf, f and fff, as were found in section A. Nono has constructed the first six multiple level patterns in such a manner that the dynamic range becomes less with each successive pairing of patterns, as numbers 1 and 2 vary from ppp to fff, numbers 3 and 4 move from p to f, while patterns 5 and 6 employ only mp and mf. The diagram on the following page presents the dynamic pattern ordering for each of the sound-blocks in section B, with the numbers employed corresponding to the above listing of patterns.
Figure 14.— Dynamic Pattern Ordering of Solo Violin and Orchestra Sound-Blocks of Section B of *Varianti*

<table>
<thead>
<tr>
<th>Pairing Density</th>
<th>Dynamic Patterns in Order of Appearance in Orchestra</th>
<th>Density</th>
<th>Dynamic Patterns in Order of Appearance in Solo Violin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12 4 1 6 3 5 5 4 2 3 5 2 5</td>
<td>1 6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10 3 1 1 5 5 3 5 1 3 5</td>
<td>3 3 6 6</td>
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</tr>
<tr>
<td>3</td>
<td>8 4 4 1 4 6 5 6 [fp]</td>
<td>5 5 6 8 12 10</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>6 12 12 10 8 10 8</td>
<td>7 8 12 12 7 9 11</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4 12 9 10 8</td>
<td>9 12 7 9 12 7 9 12 9 10</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>2 9 10</td>
<td>11 11 7 10 11 11 7 10 8 1 2</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1 9</td>
<td>12 10 3 5 4 [fff] 10 7 8 12 12 10 12</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3 8 8 12</td>
<td>10 10 10 4 2 2 2 2 4 [ppp] 6 6</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>5 4 4 4 4 9</td>
<td>8 8 11 11 11 7 10 7 10</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>7 7 8 11 10 2 2 8</td>
<td>6 5 3 12 2 2 [fp]</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>9 9 7 7 11 11 9 9 5 11</td>
<td>4 11 7 9 7</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>11 4 4 6 5 2 11 5 2 5 3 3</td>
<td>2 5 [pppp]</td>
<td></td>
</tr>
</tbody>
</table>
In Figure 14 there are five dynamic patterns notated in black ink which are not part of the established set of twelve and the existence of these irregularities cannot be explained satisfactorily although one may speculate that they could be the result of an error in the printing of the score. In studying this diagram it becomes obvious that the dynamic patterns by themselves are not ordered in appearance according to a specific system. Similarly, in considering the dynamic pattern content of the sound-blocks in relation to tone row, no overall structural system can be determined. However, an isolated example of a distinct relationship between pitch and dynamic pattern content is evident in comparing the orchestral sound-blocks of pairings 1 and 12.

Figure 15. Dynamic Comparison With Respect to Pitch, of Orchestral Sound-Blocks of Pairings 1 and 12 of Section B of Varianti

<table>
<thead>
<tr>
<th>Pairing Density</th>
<th>C</th>
<th>C#</th>
<th>B</th>
<th>D</th>
<th>Bb</th>
<th>Eb</th>
<th>A</th>
<th>E</th>
<th>Ab</th>
<th>F</th>
<th>G</th>
<th>F#</th>
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<td>5</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>11</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>5</td>
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<td>3</td>
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<td>5</td>
<td>11</td>
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</tbody>
</table>

In comparing these two note-complexes pitch for pitch, it can be seen that with only one exception the dynamic pattern content is identical. This connection between dynamic pattern and pitch appears even a little more important when it is
discovered that these dynamic patterns also are those most frequently employed by the respective pitches of the remaining ten orchestra sound-blocks. Unfortunately Nono does not extend any further this pitch to dynamic relationship and as a result this is not of extreme significance structurally when considering the organization of the entire section.

Throughout section B there are six performance indications for the string players which are employed consistently and they are col legno, legno battuto, pizzicato, arco, am Steg, and of course normal. These performance indications are combined in various ways to produce twelve different patterns which are listed below.

1. arco               pizzicato
2. pizzicato          arco
3. am Steg arco       am Steg pizzicato
4. am Steg pizzicato  am Steg arco
5. col legno          legno battuto
6. legno battuto      col legno
7. am Steg col legno  am Steg legno battuto
8. am Steg legno battuto am Steg col legno
9. arco
10. am Steg arco      
11. col legno          
12. am Steg col legno  
An obvious similarity can be seen when comparing performance indications with dynamics in that the six basic dynamic levels produce twelve dynamic patterns while six performance indications combine to form twelve different patterns of indications. A further relationship between the organization of dynamics and that of performance indications is evident after examining the ordering of the patterns of performance indications in each sound-block of section B, which is presented in Figure 16. In this diagram, the numbers employed correspond to the previous list of performance indication patterns.
Figure 16.— Ordering of Performance Indication Patterns in Solo Violin and Orchestra Sound-Blocks of Section B of Variation

<table>
<thead>
<tr>
<th>Pairing</th>
<th>Event Density</th>
<th>Performance Indication Patterns in Order of Appearance in Orchestra</th>
<th>Density</th>
<th>Performance Indication Patterns in Order of Appearance in Solo Violin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>2 1 8 3 5 7 4 4 3 5 2 5 1 8</td>
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<tr>
<td>2</td>
<td>10</td>
<td>1 1 1 5 7 3 7 1 3 5</td>
<td>3 1</td>
<td>6 8</td>
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<td>10 9 4 4 2 2 4 10 6 6</td>
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<tr>
<td>12</td>
<td>11</td>
<td>4 2 8 5 4 11 5 2 7 3 3</td>
<td>2</td>
<td>5 9</td>
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</tbody>
</table>
The only performance indication employed in section B which does not fall within the group of twelve patterns is found in the solo violin sound-block of pairing 7. Significantly, this single performance indication irregularity, *pizzicato*, coincides exactly with an irregularity in dynamics which is, as can be seen in Figure 14, a fff.

If one compares the ordering of dynamic patterns in section B with that of patterns of performance indications, a distinct relationship becomes obvious. Each of the twelve dynamic patterns is employed in connection with either of two specific patterns of performance indications; for example, dynamic pattern 1, \( p \gg ppp \ fff \), always appears with either performance indication pattern 1, *arco pizzicato*, or pattern 3, *am Steg arco am Steg pizzicato*. The following table presents the performance indications utilized with each of the twelve dynamic patterns, with the numbers employed corresponding to the appropriate listing of patterns.
TABLE 18
PERFORMANCE INDICATION PATTERNS EMPLOYED WITH SPECIFIC DYNAMIC PATTERNS IN SECTION B OF VARIANTI

<table>
<thead>
<tr>
<th>Dynamic Pattern</th>
<th>Performance Indication Patterns Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1, 3</td>
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<td>2</td>
<td>2, 4</td>
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<td>11, 12</td>
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<tr>
<td>12</td>
<td>9, 10</td>
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</tbody>
</table>

The above relationship of employment is followed consistently throughout section B although, as can be expected, several irregularities do appear.

In examining the dynamic pattern content of the sound-blocks in relation to pitch, it was determined that no overall structural system was in effect and this is similarly the case with respect to the performance indication pattern content in
relation to pitch. Figure 15 illustrated the isolated example of the almost identical dynamic pattern contents of the orchestral note-complexes of pairings 1 and 12 and in the following figure, the performance indication pattern content of these two sound-blocks is present, with the numbers utilized presenting the appropriate patterns.

Figure 17.— Performance Indication Comparison of Orchestral Sound-Blocks of Pairings 1 and 12 of Section B of Varianti

<table>
<thead>
<tr>
<th>Pairing</th>
<th>Density</th>
<th>C</th>
<th>C#</th>
<th>B</th>
<th>D</th>
<th>B♭</th>
<th>E♭</th>
<th>A</th>
<th>E</th>
<th>A♭</th>
<th>F</th>
<th>G</th>
<th>F♯</th>
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<tbody>
<tr>
<td>1</td>
<td>12</td>
<td>4</td>
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<td>5</td>
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<td>5</td>
<td>11</td>
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</tbody>
</table>

In comparing these two note-complexes pitch for pitch, it can be seen that with only one exception for performance indication pattern content is likewise identical. As was the case with dynamic patterns, these performance indication patterns are also those most frequently employed by the respective pitches of the remaining ten orchestra sound-blocks. These points illustrate even further the close relationship between the ordering of dynamics and that of performance indication in section B.

In the organization of the parameter of note duration in section B, the principal factors of basic duration and duration multiple are again prominent as was the case in the
first section, however here they are employed in a completely new manner. Rather than five, there are now only three different basic durations: $\frac{1}{3}, \frac{1}{5}$ and $\frac{1}{7}$. The next figure illustrates how they are utilized within each sound-block.
Figure 18.— Basic Duration Content of Sound-Blocks in Section B of *Varianti*

<table>
<thead>
<tr>
<th>Pairing</th>
<th>Density</th>
<th>C</th>
<th>C#</th>
<th>B</th>
<th>D</th>
<th>B♭</th>
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<td>1/5</td>
<td>1/7</td>
<td>1/3</td>
</tr>
</tbody>
</table>

One Basic Duration Employed Throughout a Sound-Block

indicating pitch of duplication
Throughout each solo violin sound-block, only one basic duration is employed and, as can be seen from Figure 18, the ordering of the basic durations used in these note complexes is structured in the form of a palindrome. In the orchestral sound-blocks, organization of basic duration is linked closely to that of the parameter of pitch. Through the first six note-complexes, each of the twelve tone row pitches is assigned a specific basic duration according to the following pattern:

\[
\begin{align*}
C & \quad C^\# & \quad B & \quad D & \quad B^b & \quad E^b & \quad A & \quad E & \quad A^b & \quad F & \quad G & \quad F^\# \\
\frac{1}{3} & \quad \frac{1}{5} & \quad \frac{1}{7} & \quad \frac{1}{3} & \quad \frac{1}{5} & \quad \frac{1}{7} & \quad \frac{1}{3} & \quad \frac{1}{5} & \quad \frac{1}{7} & \quad \frac{1}{3} & \quad \frac{1}{5} & \quad \frac{1}{7}
\end{align*}
\]

This method of organization does not continue into the last six sound-blocks due to the existence of another concept of ordering. Throughout section B Nono consistently follows the practice of having the two notes of duplication within a pairing both use the same basic duration and as a result this has introduced another relationship of pitch to basic duration which is presented below.

\[
\begin{align*}
C & \quad C^\# & \quad B & \quad D & \quad B^b & \quad E^b & \quad A & \quad E & \quad A^b & \quad F & \quad G & \quad F^\# \\
\frac{1}{3} & \quad \frac{1}{5} & \quad \frac{1}{7} & \quad \frac{1}{3} & \quad \frac{1}{5} & \quad \frac{1}{7} & \quad \frac{1}{3} & \quad \frac{1}{5} & \quad \frac{1}{7} & \quad 3 & \quad 1 & \quad 3
\end{align*}
\]

This is obviously the same basic duration ordering that was found in the successive solo violin note-complexes. As the
first six terms of the two series correspond, these relationships can coexist for the first half of the section. However, at pairing 7 the pattern of basic durations employed in conjunction with the notes of duplication makes the previous ordering impossible. It is interesting to note that this new method of organization introduced by the duplicated notes is not adopted completely in the orchestral sound-blocks but rather in the last half of the section the nonduplicated pitches have a relatively free ordering of basic durations.

In contrast to section A where there was a vertical duplication of pitch within a sound-block, in the second section the individual pitches of the tone row are horizontally duplicated or, more correctly, repeated. Within both the solo violin and orchestra note-complexes of section B, pitches are presented by a cell consisting of from one to four notes with or without rests. The overall duration of this cell, that is, from the beginning of the initial note to the end of the last note including rests, is determined in the same way as that of the single note in the previous section with the basic duration being multiplied by the duration multiple. These duration multiples which vary from 1 to 12 are not employed in a systematic manner within either specific sound-blocks or the section as a whole. Rather they appear to be distributed in a relatively even manner throughout. In the following example
that presents the first pairing of section B, the duration multiples are represented by the green figures.
Example 13. Nono, **Varianti**, measures 79-84.
As can be seen from examining the red figures which represent the length of the individual notes in Example 13, the construction of these cells is regulated to a certain extent. Within each cell there is a main note which is either preceded or followed by 1, 2 or 3 tone repetitions, each being the length of the appropriate basic duration. As a general rule the determining factor of the number of tone repetitions employed is the length of the main note, that is, the longer the principal note, the greater the number of repetitions. As there are so many irregularities, it would be mere speculation to even consider the possibility that the structure of the cells is governed by regulations any more specific than this.

In comparing the placement of the short repeated notes within a cell to the employment of both dynamics and performance indications, certain relationships, the result of at least a limited amount of practicality on Môno's part, are visible. In the case of dynamics, the multiple dynamic patterns are applied in conjunction with multiple note cells and in every instance throughout section B, the highest dynamic level of these patterns is employed with the short notes while the main notes have the crescendi, decrescendi and lower dynamic levels. Similarly the patterns with multiple performance indications are used with multiple note cells and the indications pizzicato
and *legno battuto* are always found with the shorter repeated notes.

In concluding this discussion on section B it is safe to say that the number series 1 to 12 is more prominent in the organization of parameters than the series 1 to 5 which was all important in the first section. In contrast to section A, the pitch content here is systematically ordered in conjunction with the sound-blocks. Another aspect of the parametric organizational system in section B which was not present in the first section is that there is now a close relationship between the employment of dynamics, performance indications and duration. These are just a few of the significant points which characterize the complete change of parametric organization from section A to section B.
CHAPTER VI
CONCLUSIONS

In comparing the methods of parametric organization as found in the five works examined by this study, two basic characteristics are evident in Luigi Nono's development in the employment of serial techniques.

The analysis of *Liebeslied*, *Canti per tredici*, *Incontri* and *Il Canto sospeso* have shown that with each successive composition the organizational systems not only become more complex but are also generally applied to a greater extent. Coinciding with this is the development of the technique of polytimbral continuity, the presentation of which with each successive work becomes more intricate. At the same time, the number of structural functions of polytimbral continuity in the ordering of parameters is increased.

In contrast to this trend toward a greater degree of organization within *Liebeslied*, *Canti per tredici*, *Incontri* and *Il Canto sospeso*, there can be found, within each of these compositions, areas in which the systems of ordering are not applied. Similarly, polytimbral continuity is not evident
constantly throughout all works; there was not a consistent application of this technique in certain segments of Liebeslied, in the first movement of Canti per tredici or in several movements of Il Canto sospeso. In Varianti, the concept and method of parametric organization is now changed completely. In discarding the technique of polytimbral continuity, Nono abandons the tendency of employing systems which specifically determine ordering of variable appearances. In section A of Varianti, rather than continuing to move toward total control, the composer utilizes organizational systems which define and limit the content or range of parameter employment within either the individual sound-block or measure-grouping, or both.

The technique of polytimbral continuity was first employed by Nono in Liebeslied. Only one polytimbral line, with one basic duration, was utilized in this work and even it did not appear continuously throughout the composition. In spite of this rudimentary form, the presentation of polytimbral continuity influenced, if only to a limited extent, the employment of the parameters of pitch and duration. In the second movement of Canti per tredici the utilization of polytimbral lines becomes more involved, with the number of lines increasing to four and six respectively. The number of basic durations likewise increases to two and three respectively. Most importantly, in these two works the technique of polytimbral
continuity assumes more structural significance. It now relates directly the durational organization of sound to that of silence, as well as being employed to determine the basic duration of a specific note. In movements V and VII of Il Canto sospeso, polytimbral continuity reaches the peak of its development. It is of utmost importance to the organizational systems of pitch, duration and dynamics: in that the polytimbral lines are utilized as vehicles for the presentation of these systems. Although polytimbral continuity is not employed in Varianti, certain similarities in duration organization between the duplicated notes of the previous polytimbral lines and the sound-blocks of this composition are most evident.

Within the systems of parametric organization of each work examined in this study can be found many examples of Nono's employment of palindrome ordering. Although it would not be practical to cite every case in which the palindrome has been utilized, the reader by this point should be fully aware of its extensive use. In constructing these systems, the composer undoubtedly must have felt the necessity to introduce the quality of symmetry.

In the Introduction it was stated that György Ligeti, in his article "Metamorphoses of Musical Form," observes that with the application of serial processes to a number of
both single and multiple event variables, the serial arrangement of pitch, which was the first parameter to be ordered in such a manner, has now become, in many composers' works, the "first thing sacrificed in this shift of emphasis."¹

This is generally the case with the five Nono compositions examined in this paper. With only a few exceptions, Nono, in presenting the parameter of pitch, appears to be concerned primarily with a relatively even distribution rather than a rigid system of ordering. Even when a specific tone row is found, it is only employed in its original form, being constantly repeated. Nono's lack of concern for a sophisticated structuring of this parameter is most evident when it is remembered that one specific tone row was used within three different works (Canti per tredici, Il Canto sospeso and Varianti) in the same manner of continuous repetition. In contrast, Nono during this period has been constantly modifying and expanding his systems of duration organization.

Possibly the most significant quality in Nono's development of serial techniques is examined in this study is the composer's reluctance to adopt completely systems of total

control. Although methods of parametric organization become more complex, Nono always retains a certain degree of choice. This avoidance of complete predetermination provides at least a partial explanation as to why Nono seldom employs organizational systems consistently throughout a work. The extent of irregularities may vary from one composition to the next but change is always evident. There can be no doubt that Nono has intentionally refrained from unerringly following systems of total serialism.
APPENDIX

TRANSLATIONS

With the exception of footnote number 5 in Chapter IV, the following translations have been made by the author.

Chapter I

1 "opened all the horizons of music to me."

3 With him, I recommenced all harmony and started again my studies at the beginning. It is Maderna who gave me the technique.

4 With him, during his trips, I uncovered - and liked - the German tradition. We made very extensive analyses of Schönberg and Webern. These two composers have had a profound effect on me. I admire particularly Schönberg, for he has touched all, attained all that he wished to attain, in all directions. Webern is indeed more limited, but his pursuits are so extensive that he has a positive and important influence.

11 At a time when nobody thought of decorating the conductor's stand with red flags, or to publish "Letters of freedom for the youth" or to set opera houses on fire, Nono was a politically engaged and active musician whose art was an appeal to new thinking, particularly with regards to the open and latent forms of thinking of fascism and its roots, which he considered to be very dangerous because they were forgotten owing to a love for comfort which had to be awakened even in the aesthetic realm.

13 "a series of works by Nono on the Spanish civil war, returning to tonality, cori parlati, forms of operatic ariosi, popular dance rhythms and gregorian chant."

15 "connects music and choreography"

17 "the theme of the tormenting regret for the dead in the partisan war."
"couple quasi different modulations of a same sentiment"

"is a means of intervention, active or passive, in the present society"

But Nono edged away from all embraces when he realized how hostile or carelessly his ideals were regarded. His texts became more direct, his music more poster-like, he as a person became harder; his attitude in all spheres, even toward the young generation, became more and more provocative. It seemed as if he were running amok against friends and connections. However, he faced the consequences of his political attitude. The public who continued to ignore him, thinking to shame him as a man led astray from the artistic path by political ideas did injustice to Nono. This injustice was cause for his disappointment and resentment against the West Germans.

"marked the beginning of a differentiation with the group of musicians, up to then united, of the nouvelle vague."

He remarks - put in Stimmung - certain facts, stimuli or sonorous spheres that are found in India (I refer to certain Buddhist rituals of Tibet) and uses them in a colonialistic way (I called it this term already, in 1959 in regard to a musical practice of Cage): abstracting them from their context, from their function and from their history in a typically neoclassical way (Messiaen in this "India case" shows). Hymnen, later, is for me among the compositions most exemplary of a precise imperialistic attitude: of Karlheinz I rather than Wilhelm II (but it is the same...).

"Those of the Darmstadt school have stopped as in front of a wall."

You know that we work in some parallel ways and that we help each other very much, in good friendship. He also has taken an engaged position, "responsible," in front of the world today, a position made of pity, anger, revolt...

"The intollerance of the contemporary world."

"always the genesis of my work is to search for a human 'provocation': an event, an experience, a text of our life provokes my instinct and my conscience to give witness as a musician-man."
"Film images (abstract or not - they were conceived for me by Vedova) at the same time as the action, are not like a passive support but like a parallel action."

"The revolution is not to send the peasants to the theatre in the same way of the bourgeoisie."

"is that of being able to make music for attacking, roads, squares, fields, institutions, with the working and peasant class in struggle together."

"others again have told me of becoming conscious, just listening to this work, of the state of alienation in which they find themselves, becoming like a robot."

"in Cuba - where I came into contact with men of government, with guerrillas, with peasants, with students, with children - my way of communicating with different, without the barriers, by which we are retarded here (that is aesthetic categories, codified stratifications, etc.)"

"where there is a working class in the situation of struggle - not of consumism, of enjoyment, etc. -- I have found a freshness of communication, negative or positive, genuine and direct."

Chapter II

"His emancipation from the Viennese models tolerates at times also the simplification, in the sense of a loosening, if not of the serial processes, at least of the rule that imposes the perpetual application of such processes to the chromatic total."

"the chromatic total was not nor will be for Nono an imperative standard."

"an ulterior pause brings the ultimate strophe of two verses, and therefore the third part of the work which is a sort of 'coda' of only five measures."

But it is rather stimulating to observe how, for example, in Liebeslied he establishes a correspondence between the metrics of the lines and the series: the first line of four syllables assumes in the chorus four notes of the first series while he commits the fifth to the tympani; the second series on the initial line of the third strophe, that is of five syllables, exposes the chorus in a rapid a cappella passage....
11 "the pure monody that changes colour passing from one voice to another, according to a writing already traceable in certain Dallapiccola..."

Chapter III

3 "Nono has a pronounced predilection for symmetrical rows, all-interval-rows."

4 "From the interval-characteristics of the row stem the further possibilities which are offered by each half: chromatic scales which converge from both sides towards a 'tonal centre,' as can be seen above."

6 The tone had remained a point, and the rest had become a hole between the two dots. Duration and distance of the points, as well as duration and distance of the holes became serialized; however, the principle which had separated holes from dots, minus from plus, did not undergo any change or become more sophisticated. At least in instrumental music, no attempt had been made to abolish any difference between sound and not-sound which had been the basis of musical time articulation of rhythm.

Chapter IV

3 "the intollerance of the contemporary world,"


II

"...I am dying for a world which will shine with such a strong light and with such beauty that my sacrifice is nothing. Millions of men have died for it on the barricades and in war. I am dying for justice. Our ideas will conquer..."

III

"...they are bringing me to Kessariani to be executed with seven others. I am dying for freedom and for the fatherland..."

"...they will shoot us today. We shall die as men for the fatherland. Be worthy of us..."

"...they will hang me in the square, because I am a patriot. Your son departs, he will not hear the bells of freedom..."
"...If the sky were made up of paper and all the sea of ink, I could not describe to you my sufferings and everything I see around me. I say farewell to all and weep..."

"...the doors are opening. Here are our murderers, dressed in black. They are hounding us out of the synagogue. How hard it is to say goodbye for ever to such a beautiful life!"

"...farewell, Mother, your daughter, Liubka, is going to the damp soil..."

"...I am not afraid of death...
"...I shall be calm and peaceful at the command of execution. Are those who have condemned us also so calm?..."
"...I go with the belief in a better life for you..."
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