

INFORMATION TO USERS

This dissertation copy was prepared from a negative microfilm created and inspected by the school granting the degree. We are using this film without further inspection or change. If there are any questions about the content, please write directly to the school. The quality of this reproduction is heavily dependent upon the quality of the original material.

The following explanation of techniques is provided to help clarify notations which may appear on this reproduction.

1. Manuscripts may not always be complete. When it is not possible to obtain missing pages, a note appears to indicate this.
2. When copyrighted materials are removed from the manuscript, a note appears to indicate this.
3. Oversize materials (maps, drawings and charts are photographed by sectioning the original, beginning at the upper left hand corner and continuing from left to right in equal sections with small overlaps.



ProQuest Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600

UMI Number: 3123859



UMI Microform 3123859

Copyright 2004 by ProQuest Information and Learning Company.
All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

NOTE TO USERS

This reproduction is the best copy available.

UMI[®]

THREE CHAMBER MUSIC WORKS

Part I

A Dissertation

Presented to the Faculty of the Graduate School

of Cornell University

In Partial Fulfillment of the Requirements for the Degree of

Doctor of Musical Arts

By

Yotam Moshe Haber

May 2004

© 2004 Yotam Moshe Haber

TABLE OF CONTENTS

<i>Death in Venice</i> for Solo Trumpet.....	1
<i>Purity Guaranteed</i> for Violin and Flute.....	5
<i>Blur</i> for Two Clarinets and String Quintet.....	11

Trumpet in B-flat

for Frank Gabriel Campes
Death in Venice

Yotam Haber

2000

Blurred $d=120$
Plunger Mute

8" Ad lib on the pitch range Gb-D \flat + gradually opening and closing

(open) 6" (PLUNGER) gradually opening and closing (open)

gradually expand pitch range until m. 14

5" (PLUNGER) gradually opening and closing (open) 4" (PLUNGER) gradually opening and closing

$d=60$ Gradually open... Rit... (s) (s) (s)

(open) $d=76$ acc. a tempo (f) p (ff) < f (fff) < ff

$d=88$ suddenly light and playful (3 min) 3 3 3 3 3 FL

Presto a tempo FL dolce $d=60$ dolce (p) (pp)

(Prepare Harmon mute) Harmon w/ stem (3") (p) (pp) (ppp)

accel. (GRAND READY OVER BELL) (3") (2") (2") (p) (ff) p < (fff) p < ff

Horns

27 (+) s s s s s s (o) *ff* (+), (o)

29 (+), s s s s (o) *ff* *mp* *slow*

accel fast, wild a tempo basically (open fast)

4 Presto 5" slower 3" slower 4" slower 2"

d=22 accel fast, wild

maniacally d=88 rit. serenely

Taut d=84 short

d=88 cantabile rit. d=84 (PLUNGER READY)

Plunger start trill clearly and endow through bar (23-12) (+) (o) (KEEP PLUNGER!) (3) (3)

rit.
PLUNGER
(+)
slow 4"
d=28
5"
slower
3"
slower

slowly
accel. poco a poco

rit. slow accel. rit. slow accel.

Gal fast

Presto

a tempo bold back...

a tempo (Presto)

ff mp ff

fiercely

boldly

like an echo

Make each pause an unpredictable length

fff

AltoFlute/Flute/Piccolo Violin

for Anna Maria Morial and Enzo Porta
Purity Guaranteed

2002

Yotam Haber
(*1976)

Alto Flute in G

1. measure time

Violin

Shape I

Bassoon

Switch to Piccolo

Nervously, with freedom and drive

This is a transposing score. Alto Flute in G sounds a perfect fourth lower than written. Piccolo sounds one octave higher than written.

m. 16: Fl. & Vcl. - By this point, the two instruments must be playing very lead and rhythmic, like two bellhop musicians. The stars (mm. 16-17 only) are to indicate note groupings - play sustained, spaced releases.

Piccolo

The musical score consists of six staves of music for Piccolo and Bassoon. The top staff is for the Piccolo, and the bottom staff is for the Bassoon. The music is divided into measures by vertical bar lines. Measure 16 starts with a dynamic of pp . The first measure of measure 17 begins with a dynamic of f , followed by a dynamic of mf . Measure 17 concludes with a dynamic of p . The score includes various performance instructions such as "play sustained, spaced releases" and "cheek, press a press". There are also slurs and grace notes throughout the piece.

Musical score for orchestra, featuring four staves of notation:

- Staff 1:** Treble clef, 2/4 time. Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic *CHIC. piano e piano*. Measure 4 ends with a dynamic *ff*.
- Staff 2:** Bass clef, 2/4 time. Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic *ff*.
- Staff 3:** Treble clef, 2/4 time. Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic *ff*. Measure 4 ends with a dynamic *ff*.
- Staff 4:** Bass clef, 2/4 time. Measures 1-2 show eighth-note patterns. Measures 3-4 show eighth-note patterns. The measure 4 dynamic is *v.s.*

A handwritten musical score for flute and piano, consisting of five systems of music. The score includes dynamic markings such as *p*, *f*, *mp*, and *mf*. It also features various performance instructions like "cross. piano a piano", "long note, crescendo & dec.", and "cross. piano a piano". A specific instruction "SWITCH TO FLUTE IN C" is present in the third system. The score is written on five-line staves with some ledger lines and rests.

V.S.

A musical score consisting of five systems of two staves each. The top system shows eighth-note patterns with dynamic markings f and ff . The second system shows eighth-note patterns with dynamic markings f and ff . The third system shows eighth-note patterns with dynamic markings f and ff , and includes the instruction *Accelerando*. The fourth system shows eighth-note patterns with dynamic markings f and ff , and includes the instruction *a tempo*. The fifth system shows eighth-note patterns with dynamic markings f and ff .

blur

Score in C

for Steven Stucky and Ensemble X

Yotam Halevi

1st stage

$\text{♩} = 56$ still and careful ($\text{♩} = \text{♩}$ *mpre*)

Clarinet in B_b

Bass Clarinet

Violin I
sul ponticello
senza vib. (like a viol consort)
con sord.
pp

Violin II
sul ponticello
senza vib. (like a viol consort)
con sord.
pp

Cello
sul ponticello
senza vib. (like a viol consort)
con sord.
pp

Double Bass
senza vib. (like a viol consort)
con sord.

1 2

quietly pushing forward $\text{d} = 108$

B.C.

E.C.

Vln. I

Vln. II

Vla.

Ccl.

gliss.

p

pp

legatiss., murmuring

IV

p

poco vib.

ord.

pp

pizz.

pp

10

B.C. I. C.

p

growing more intense.

M. I. poco vib.

(poco) legatiss., murmuring poco vib.

M. II. pp

M. III. ord.

growing more intense.

M. IV. poco vib.

M. V. mf

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Musical score page 14, featuring six staves of musical notation for orchestra. The staves are as follows:

- Top staff: Bassoon 1 (B.C.) and Bassoon 2 (C). Both play eighth-note patterns. Dynamics: p , pp , f , p .
- Second staff: Trombones 1 and 2. Trombone 1 has dynamic p . Trombone 2 has dynamic p .
- Third staff: Trombone 3 (pizz.) and Trombone 4 (pizz.). Both play eighth-note patterns. Dynamics: pp , p .
- Fourth staff: Trombone 5 (pizz.) and Trombone 6 (pizz.). Both play eighth-note patterns. Dynamics: p .
- Fifth staff: Trombone 7 (pizz.) and Trombone 8 (pizz.). Both play eighth-note patterns. Dynamics: p .
- Bottom staff: Trombone 9 (pizz.) and Trombone 10 (pizz.). Both play eighth-note patterns. Dynamics: p .

Measure numbers 14, 15, 16, and 17 are indicated above the staves.

Musical score for orchestra, page 15, showing parts for Bassoon, Trombone, Violin I, Violin II, Viola, and Cello. The score includes dynamic markings like *mf*, *f*, and *p*, and performance instructions like "ord." and "vib.". The score consists of six staves, each with a clef, key signature, and time signature. The parts are arranged vertically, with the Bassoon at the top, followed by Trombone, Violin I, Violin II, Viola, and Cello at the bottom. The score shows various musical phrases with corresponding dynamics and performance instructions.

rit. . . a tempo

. tempo
Ad.

B.C.
Cl.
Vcl.
Vln.
Bass
Tr.

(molt' alle)

sul ponticello

sul tasto 3

solo espressivo (gliss.)

III *Coming out!*

fp *f* *p* *pp* *pp* *pp* *pp* *pp* *pp* *pp*

Musical score page 18, featuring six staves of music for different instruments. The instruments are: Bassoon (B.C.), Bassoon (B.C.), Violin I (Vn. I), Violin II (Vn. II), Bassoon (Kb.), and Double Bass (U.). The score is divided into measures by vertical bar lines. Measure 27 begins with dynamic *mp*. The first two measures of the B.C. staves feature eighth-note patterns with dynamic markings *mp*, followed by a crescendo arrow pointing right. The Vn. I staff has a eighth-note pattern with a dynamic *mf*. The Vn. II staff consists of eighth-note patterns. The Kb. staff has a eighth-note pattern with a dynamic *mf*. The U. staff has a eighth-note pattern with a dynamic *mf*. Measures 28 and 29 show similar patterns for each instrument, with some variations in dynamics and note heads.

Musical score page 19 featuring six staves:

- B.C.**: Staff 1, Treble clef, mostly rests.
- Flute**: Staff 2, Treble clef, mostly rests. Dynamics: *p*, *mf*.
- Bassoon 1**: Staff 3, Bass clef, mostly rests. Dynamics: *p*, *mf*.
- Bassoon 2**: Staff 4, Bass clef, mostly rests. Dynamics: *p*, *mf*.
- Trombone**: Staff 5, Bass clef, slurs and grace notes. Dynamics: *p*, *mf*.
- Bass**: Staff 6, Bass clef, mostly rests.

Measure 10 is indicated above the Bassoon 1 staff. Measure 11 starts with a dynamic of *ord.* (ordinario).

meno mosso $\text{d} = 84$

B.C.
L.C.
M.1
M.2
K.
U.

p f pp
f pp
p f pp
f pp
p f pp

Musical score page 21, featuring seven staves for different instruments:

- B.C. (Bassoon): Stays mostly silent with occasional short notes.
- L.C. (Low Clarinet): Stays mostly silent with occasional short notes.
- W.I. (Woodwind I): Dynamics *pp*, performance instruction < V, grace notes (2).
- W.II. (Woodwind II): Dynamics *pp*, performance instruction < V, grace notes (2).
- W.III. (Woodwind III): Dynamics *pp*, performance instruction < V, grace notes (2).
- K. (Klarinette): Dynamics *pp*, performance instruction < V, grace notes (2).
- H. (Horn): Dynamics *pp*, performance instruction < V, grace notes (2).

The score is in common time, and measure 40 is indicated at the top of each staff.

Musical score for six staves (string quartet) showing measures 7 through 12. The score consists of two systems of four measures each.

Measure 7: All staves play eighth-note patterns. The first two measures are identical. The third measure features eighth-note pairs with fermatas. The fourth measure has eighth-note pairs with grace notes.

Measure 8: The first two measures are identical, featuring eighth-note pairs with fermatas. The third measure has eighth-note pairs with grace notes. The fourth measure has eighth-note pairs with grace notes.

Measure 9: The first two measures feature eighth-note pairs with grace notes. The third measure has eighth-note pairs with grace notes. The fourth measure has eighth-note pairs with grace notes.

Measure 10: The first two measures feature eighth-note pairs with grace notes. The third measure has eighth-note pairs with grace notes. The fourth measure has eighth-note pairs with grace notes.

Measure 11: The first two measures feature eighth-note pairs with grace notes. The third measure has eighth-note pairs with grace notes. The fourth measure has eighth-note pairs with grace notes.

Measure 12: The first two measures feature eighth-note pairs with grace notes. The third measure has eighth-note pairs with grace notes. The fourth measure has eighth-note pairs with grace notes.

Musical score for orchestra, page 23, featuring six staves:

- B. cl.**: Playing eighth-note patterns. Dynamics: *p*, *mf p*, *PPP*.
- L. cl.**: Playing eighth-note patterns. Dynamics: *p*, *mf p*, *PPP*.
- Trombones I**: Playing eighth-note patterns. Dynamics: *p*.
- Trombones II**: Playing eighth-note patterns. Dynamics: *mf p*.
- Trombones III**: Playing eighth-note patterns. Dynamics: *p*.
- Bass**: Playing eighth-note patterns. Dynamics: *p*.

The score consists of six staves, each with a clef, key signature, and time signature. The dynamics *p*, *mf p*, and *PPP* are indicated above the staves. Measures 1 through 4 are shown, followed by a repeat sign and measures 5 through 8.

2-meterbeat

d=120

Clarinet in B_b

Bass Clarinet

Violin I

Violin II

Cello

Double Bass

Tone IV down to A or G; every bass reacts differently, so find a pitch that still speaks.

Musical score page 25 featuring six staves of music for orchestra. The staves are as follows:

- Top staff: Bassoon (B.C.)
- Second staff: Bassoon (B.C.)
- Third staff: Trombone I
- Fourth staff: Trombone II
- Fifth staff: Trombone III
- Sixth staff: Trombone IV

Measure 1: All instruments play eighth-note patterns. Dynamics: **f**, **s**, **p** (with a bracket), **f**, **mb.p**.

Measure 2: Dynamics: **f**, **s**, **p** (with a bracket), **f**, **mb.p**.

Measure 3: Trombones I and II play eighth-note patterns. Dynamics: **p** (with a bracket), **f**.

Measure 4: Trombones I and II play eighth-note patterns. Dynamics: **p** (with a bracket), **f**.

Measure 5: Trombones III and IV play eighth-note patterns. Dynamics: **fp** (with a bracket), **f**, **p** (with a bracket), **f**.

Measure 6: Trombones III and IV play eighth-note patterns. Dynamics: **fp** (with a bracket), **f**.

Measure 7: All instruments play eighth-note patterns. Dynamics: **f**.

11

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

Musical score page 28, featuring six staves of music for orchestra. The staves are as follows:

- B.C.**: Starts with a dynamic of **f**, followed by **mf**. The tempo is marked with a 3 over 3. The section ends with a dynamic of **mf**.
- B.C.**: Continues with a dynamic of **f**, followed by **mf**. The tempo is marked with a 3 over 3. The section ends with a dynamic of **mf**.
- Violin I**: Starts with a dynamic of **f**, followed by **mf**. The tempo is marked with a 3 over 3.
- Violin II**: Starts with a dynamic of **f**, followed by **mf**. The tempo is marked with a 3 over 3.
- Cello**: Starts with a dynamic of **f**, followed by **mf**. The tempo is marked with a 3 over 3.
- Bassoon**: Starts with a dynamic of **p**, followed by **mf**. The tempo is marked with a 4 over 4. The section ends with a dynamic of **f**.

The score includes various dynamics such as **f**, **mf**, **p**, and **mp**, as well as tempo markings like 3 over 3 and 4 over 4. Articulation marks like **arco** and **mf** are also present.

Musical score page 29, featuring two systems of music for orchestra. The top system (measures 21-22) includes parts for Bassoon (B.C.), Clarinet (C), and Bassoon (B.C.). The Bassoon parts show sustained notes with dynamics *mp* and *f*, with grace notes and slurs. The bottom system (measures 21-22) includes parts for Violin I (Vi. I), Violin II (Vi. II), Cello (C), Double Bass (Bass), and Double Bass (Bass). The Violin parts play eighth-note patterns, while the Cellos and Double Basses provide harmonic support.

Musical score page 30, featuring six staves of music for orchestra and guitar. The score is divided into measures by vertical bar lines. Measure 25 begins with two staves: Bassoon 1 and Bassoon 2. Both staves have dynamic markings *p*. The Bassoon 2 staff ends with a dynamic *mf*. Measure 26 starts with Bassoon 1 at dynamic *p*, followed by Bassoon 2 at dynamic *p*. Measure 27 begins with Bassoon 1 at dynamic *pp*, followed by Bassoon 2 at dynamic *p*, and Bassoon 3 at dynamic *mf*. Measure 28 begins with Bassoon 1 at dynamic *p*, followed by Bassoon 2 at dynamic *p*, Bassoon 3 at dynamic *mf*, and Bassoon 4 at dynamic *p*. Measure 29 begins with Bassoon 1 at dynamic *p*, followed by Bassoon 2 at dynamic *p*, Bassoon 3 at dynamic *p*, Bassoon 4 at dynamic *p*, and Bassoon 5 at dynamic *p*. Measure 30 begins with Bassoon 1 at dynamic *p*, followed by Bassoon 2 at dynamic *p*, Bassoon 3 at dynamic *p*, Bassoon 4 at dynamic *p*, Bassoon 5 at dynamic *p*, and Bassoon 6 at dynamic *p*. The score also includes instructions for guitar: "quasi guitarra" with an upward arrow, "(pizz.)" above the guitar staff, and "pizz. quasi guitarra" with an upward arrow.

Musical score page 31, featuring five staves for woodwind instruments. The staves are as follows:

- B. cl.**: Starts with a melodic line in measures 1-2, followed by sustained notes in measures 3-4. Dynamics: *f*, *mp*.
- B. bn.**: Starts with a melodic line in measure 1, followed by sustained notes in measures 3-4. Dynamics: *f*, *mp*.
- B. tbn.**: Melodic line in measures 1-2, sustained notes in measures 3-4.
- Horn**: Melodic line in measures 1-2, sustained notes in measures 3-4.
- Tuba**: Melodic line in measures 1-2, sustained notes in measures 3-4. Dynamics: *pp*, *mf*.

Musical score page 32, featuring six staves of music for various instruments. The staves are divided into measures by vertical bar lines. Dynamics and performance instructions are included.

- B.C. (Bassoon):** Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic **p**.
- E.C. (Euphonium):** Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic **p**.
- Br. I (Bassoon):** Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic **p**.
- Br. II (Bassoon):** Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic **mp**. The instruction "pizz. quasi guitar" appears above the staff, and "3" is written below it.
- Br. III (Bassoon):** Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic **mf**. The instruction "pizz. quasi guitar" appears above the staff, and "3" is written below it.
- Br. IV (Bassoon):** Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic **p**, followed by **mf**. The instruction "pizz. quasi guitar" appears above the staff, and "3" is written below it.
- Br. V (Bassoon):** Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic **p**, followed by **mf**.
- Br. VI (Bassoon):** Measures 1-2 show eighth-note patterns. Measure 3 starts with a dynamic **p**, followed by **mf**.

Begin retuning IV back

Musical score for orchestra and piano, page 33. The score consists of two systems of music. The top system starts with a piano dynamic and features woodwind entries. The bottom system begins with a forte dynamic and includes numbered figures (2, 3, 4, 5) above certain measures. The instrumentation includes Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Trombone (Tr. b.), and Piano (Pf.). Measure numbers 57 and 58 are indicated at the beginning of each system.

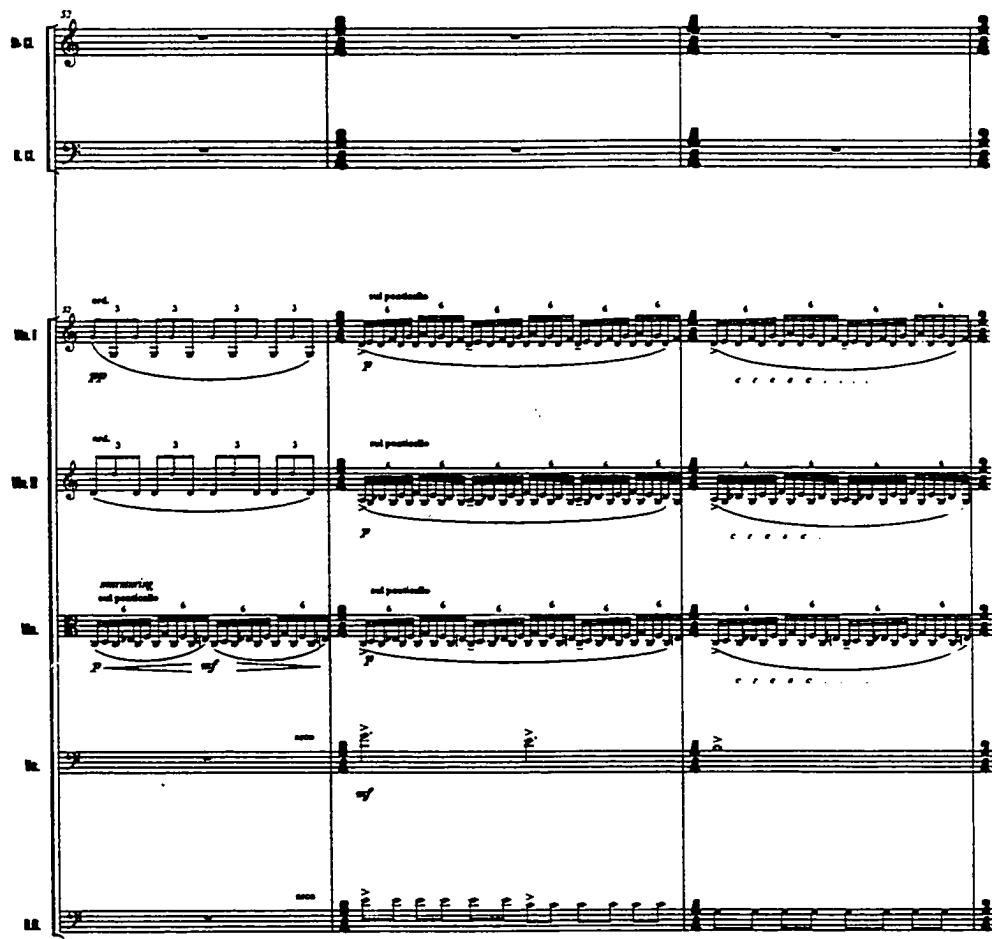
Musical score page 34, featuring two staves of music for orchestra. The top staff includes parts for Bassoon (B.C.), Trombone (T.C.), and Tuba (T.B.). The bottom staff includes parts for Trombone (T.C.), Bass Trombone (B.C.), and Double Bass (U). Measure 1 shows sustained notes. Measures 2-4 show rhythmic patterns with dynamic markings *mf*. Measure 5 shows eighth-note patterns with measure numbers 6, 7, 8, and 9 above the notes. Measure 10 shows eighth-note patterns. Measure 11 shows sixteenth-note patterns. Measure 12 shows eighth-note patterns.

Musical score page 35, featuring two staves of music for orchestra. The top staff includes parts for Bassoon (B.C.), Trombone (T.B.), and Bass (B.). The bassoon part has dynamics *p* and *f*. The bottom staff includes parts for Bassoon (B.C.), Trombone (T.B.), and Bass (B.). The bassoon part has dynamics *p* and *f*. The second staff continues with parts for Bassoon (B.C.), Trombone (T.B.), Bass (B.), and Double Bass (H.). The double bass part features numbered measures 10, 11, 12, and 13, each marked with a dynamic *f* and a '3' below the measure. The score is in common time.

Musical score page 36, featuring six staves for woodwind instruments. The staves are as follows:

- B.C. (Top Staff):** Starts with a single note, followed by a sustained note with a dynamic ***pp***. The next measure begins with a dynamic ***pp***.
- B.C. (Second Staff):** Shows eighth-note patterns. The first measure ends with a dynamic ***pp***. The second measure starts with a dynamic ***pp***.
- Tromba (Third Staff):** Shows eighth-note patterns. The first measure ends with a dynamic ***pp***. The second measure starts with a dynamic ***p***.
- Tromba (Fourth Staff):** Shows eighth-note patterns. The first measure ends with a dynamic ***pp***. The second measure starts with a dynamic ***pp***.
- Tromba (Fifth Staff):** Shows eighth-note patterns. The first measure ends with a dynamic ***pp***. The second measure starts with a dynamic ***pp***.
- B.C. (Bottom Staff):** Shows eighth-note patterns. The first measure ends with a dynamic ***pp***.

Performance instructions include *murmuring sul ponticello*, *arco*, and *ord. 3*. Measure 14 is indicated in the first staff.



Musical score page 38, featuring six staves of music for orchestra. The staves are labeled from top to bottom: Bassoon 1, Bassoon 2, Trombone 1, Trombone 2, Trombone 3, and Trombone 4. The score includes dynamic markings such as *mf*, *mp*, *p*, and *f*. Measure numbers III and IV are indicated above the Trombone 1 staff. The bassoon parts feature sustained notes with grace notes, while the brass parts play eighth-note patterns. The Trombone 4 staff shows a rhythmic pattern of eighth and sixteenth notes.



B.1

B.2

B.3

B.4

B.5

col legno battuto

Musical score page 41, featuring two systems of music for orchestra. The score includes parts for Bassoon 1 (B.1), Bassoon 2 (B.2), Trombone (Tr.), Tuba (Tb.), and Timpani (Tl.). The first system consists of two measures. In the first measure, B.1 and B.2 play eighth-note patterns with dynamics *f* and *mp*. In the second measure, all parts play eighth-note patterns with dynamics *f* and *mp*. The second system consists of four measures. In the first measure, B.1 and B.2 play eighth-note patterns with dynamics *f* and *mp*. In the second measure, B.1 and B.2 play eighth-note patterns with dynamics *ord.* and *mp*. In the third measure, B.1 and B.2 play eighth-note patterns with dynamics *ord.*, *legato*, and *ff*. In the fourth measure, B.1 and B.2 play eighth-note patterns with dynamics *ff*, *ord.*, *legato*, and *ff*. The score also includes dynamic markings *ff* and *fff* at the beginning of the second system.

Musical score for orchestra, page 42, showing parts for Bassoon 1, Bassoon 2, Trombone 1, Trombone 2, Trombone 3, and Trombone 4. The score is in 2/4 time. The parts are as follows:

- Bcl. (Bassoon 1):** Playing eighth-note patterns. Dynamics: *f*, *ff*, *f*.
- Bcl. (Bassoon 2):** Playing eighth-note patterns. Dynamics: *f*, *ff*, *f*.
- Trom. 1 (Trombone 1):** Playing sixteenth-note patterns. Dynamics: *mp*, *p*, *ord.*
- Trom. 2 (Trombone 2):** Playing sixteenth-note patterns. Dynamics: *mp*, *p*, *ord.*
- Trom. 3 (Trombone 3):** Playing sixteenth-note patterns. Dynamics: *mp*, *p*, *ord.*
- Trom. 4 (Trombone 4):** Playing sixteenth-note patterns. Dynamics: *mp*, *p*, *ord.*

Performance instructions include "sul ponticello" and "ord." (ordinario).

Musical score page 43, featuring six staves of music for orchestra. The score includes parts for Bassoon I, Bassoon II, Trombone I, Trombone II, Trombone III, and Trombone IV. The music is in 2/4 time and consists of three measures. Measure 1: Bassoon I and II play eighth-note patterns. Measure 2: Trombones I and II play eighth-note patterns. Measure 3: Trombones III and IV play eighth-note patterns. Dynamics include **ff**, **f**, **fp**, **pizz.**, and **brilliant**. Measure 3 concludes with a dynamic of **ff**.

Musical score page 44, featuring six staves of music for orchestra. The staves are as follows:

- Violin 1 (Vln. 1):** Playing sixteenth-note patterns. Dynamics: *mp*, *s*, *mp*.
- Violin 2 (Vln. 2):** Playing sixteenth-note patterns. Dynamics: *mp*.
- Viola (Vla.):** Playing sixteenth-note patterns. Dynamics: *mp*, *s*, *3*, *3*, *3*.
- Cello (Cello):** Playing eighth-note patterns. Dynamics: *fp*, *mf*, *p*.
- Bassoon (Bsn.):** Playing eighth-note patterns. Dynamics: *mp*.
- Bass (B.):** Playing eighth-note patterns. Dynamics: *mp*, *s*, *3*.

Measure numbers 1, 2, and 3 are indicated above the staves.

Waltz, poco meno mosso

B. cl.

p

B. cl.

p

Vln. I

sul tasto

pp

6 6

6 5 3 3

3 3 6

6 6 6

Vln. II

sul tasto

ord.

sul tasto

pp

6 6

6 3 3

3 3 6

6 6 6

Vla.

sul ponticello

pp

6 6

6 6

3

3 3 3

Vc.

sul ponticello

pp

6 6

6 6

3

3 3 3

Cello

sul ponticello

pp

6 6

6 6

7

pp

Musical score page 46 showing six staves for Bassoon (B.C.), Clarinet (Cl.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Cello/Bass (Cello/B.). The score is in common time (indicated by 'C') and measures 85. Measure 85 consists of four measures of music followed by a repeat sign and two measures of music. The instruments play the following notes:

- B.C. (Measures 1-4):** Notes on the 2nd, 3rd, and 4th strings.
- Cl. (Measures 1-4):** Notes on the 2nd, 3rd, and 4th strings.
- Vln. I (Measures 1-4):** Notes on the 2nd, 3rd, and 4th strings. Dynamics: *ord.*, 3, 3, 3; *col tasto*, 3, 6, 6; 6, 6.
- Vln. II (Measures 1-4):** Notes on the 2nd, 3rd, and 4th strings. Dynamics: *ord.*, 3, 3, 3; *col tasto*, 3, 6, 6; 6, 6.
- Vla. (Measures 1-4):** Notes on the 2nd, 3rd, and 4th strings.
- Cello/B. (Measures 1-4):** Notes on the 2nd, 3rd, and 4th strings.
- B.C. (Measures 5-6):** Notes on the 2nd, 3rd, and 4th strings. Dynamics: *pizz.*, 3, 3, 3.
- Cl. (Measures 5-6):** Notes on the 2nd, 3rd, and 4th strings. Dynamics: *p*, 3, 3, 3.
- Vln. I (Measures 5-6):** Notes on the 2nd, 3rd, and 4th strings. Dynamics: *mf*.
- Vln. II (Measures 5-6):** Notes on the 2nd, 3rd, and 4th strings.
- Vla. (Measures 5-6):** Notes on the 2nd, 3rd, and 4th strings.
- Cello/B. (Measures 5-6):** Notes on the 2nd, 3rd, and 4th strings.

Musical score page 47, featuring six staves:

- Flute 1:** Stays silent throughout the section.
- Flute 2:** Stays silent throughout the section.
- Bassoon 1:** Stays silent throughout the section.
- Bassoon 2:** Stays silent throughout the section.
- Trombone:** Starts with a dynamic of *pizz.* at measure 65. It then plays eighth-note patterns in measures 66-67, followed by sixteenth-note patterns in measures 68-69, and eighth-note patterns again in measures 70-71.
- Bass:** Plays eighth-note patterns in measures 66-71.

Measure 65: *con sordino*, *dolc.*
Measure 66: *ord.*, *p*
Measure 67: *con sordino*, *dolc.*
Measure 68: *ord.*, *p*
Measure 69: *con sordino*, *dolc.*
Measure 70: *ord.*, *p*
Measure 71: *ord.*, *dolc.*

Musical score page 48 featuring six staves of music. The staves are labeled from top to bottom: B.C., B.C., B.C.I, B.C.II, B.C., and B.C. The music is in common time (indicated by 'C'). The first two staves (B.C.) are mostly silent. The third staff (B.C.I) has eighth-note pairs with fermatas. The fourth staff (B.C.II) has eighth-note pairs with fermatas. The fifth staff (B.C.) has eighth-note pairs with fermatas. The sixth staff (B.C.) has sixteenth-note patterns.

Musical score page 49, featuring six staves of music for orchestra. The score includes parts for Bassoon (B.C.), Oboe (Oboe), Clarinet (Cl.), Bassoon (B.C.), Violin I (Vl. I), Violin II (Vl. II), Bassoon (B.C.), and Double Bass (U). The key signature is A major (no sharps or flats). The time signature is common time. Measure 97 begins with a dynamic of *p*. The first two measures show the Bassoon and Oboe playing eighth-note patterns. The third measure introduces the Clarinet with a melodic line. Measures 98 through 102 show the Bassoon and Oboe continuing their eighth-note patterns, while the Clarinet provides harmonic support. The Double Bass and Bassoon play sustained notes in the lower register. The score concludes with a final measure of eighth-note patterns from the Bassoon and Oboe.

Musical score page 51, staff 1:

- B.C. (Bassoon): Measures 107-108. Dynamics: **pp**, **>>**
- B.C. (Bassoon): Measures 108-109. Dynamics: **pp**

Musical score page 51, staff 2:

- B.C. (Bassoon): Measures 107-108. Dynamics: **pp**
- B.C. (Bassoon): Measures 108-109. Dynamics: **ppp**
- M. I (Mezzo-Soprano): Measures 107-108. Dynamics: **d i m i n . . .**
- M. I (Mezzo-Soprano): Measures 108-109. Dynamics: **ppp**
- M. II (Mezzo-Soprano): Measures 107-108. Dynamics: **d i m i n . . .**
- M. II (Mezzo-Soprano): Measures 108-109. Dynamics: **ppp**
- M. III (Mezzo-Soprano): Measures 107-108. Dynamics: **d i m i n . . .**
- M. III (Mezzo-Soprano): Measures 108-109. Dynamics: **ppp**
- H. (Horn): Measures 107-108. Dynamics: **pp**
- H. (Horn): Measures 108-109. Dynamics: **pp**, **>>**
- H. (Horn): Measures 107-108. Dynamics: **pp**
- H. (Horn): Measures 108-109. Dynamics: **pp**, **>>**
- U. (Ukulele): Measures 107-108. Dynamics: **pp**
- U. (Ukulele): Measures 108-109. Dynamics: **pp**, **>>**

**ALEATORY AND SERIALISM IN TWO EARLY WORKS OF FRANCO
DONATONI**

Part II

**A Dissertation
Presented to the Faculty of the Graduate School
of Cornell University
In Partial Fulfillment of the Requirements for the Degree of
Doctor of Musical Arts**

by

Yotam Moshe Haber

May 2004

© 2004 Yotam Moshe Haber

BIOGRAPHICAL SKETCH

Yotam Haber, born in Holland in 1976, is a citizen of Israel. At Cornell University, he studied with Roberto Sierra and Steven Stucky. He received a B.M. with High Distinction from Indiana University, studying composition with Eugene O'Brien and Claude Baker and piano with Edmund Battersby. In 2000, he resided in Italy, attending the Bologna Conservatory Course on the Use of Live Electronics in Music, where his work, *Shema*, for chamber orchestra and soprano, was awarded a performance at the Teatro del Sole, Bologna, by the Divertimento Ensemble. His principal teachers in Italy were Adriano Guarnieri and Alvise Vidolin. Mr. Haber is the recipient of a 2002 Morton Gould ASCAP Young Composer Award, and was a composition fellow of the Aspen Music Festival and School in 2002, where he worked with Nicholas Maw and Christopher Rouse. In 2003, he received a composition fellowship to attend the Tanglewood Music Center, studying with George Benjamin and Osvaldo Golijov. From October through December 2003, Haber was composer-in-residence at the Aaron Copland House near Peekskill, New York. His works have been performed across the U.S., Italy, Germany, France, and Holland.

Dedicated to the memory of Franco Donatoni (1927-2000)

ACKNOWLEDGEMENTS

I would like to first and foremost thank my parents, and especially my father, who wrote his doctoral dissertation during my family's first year in America. The memory of his diligence and hard work has remained ever since. I would like to thank the composer, Sandro Gorli and the conductor, Zoltan Pesko, two men who knew Donatoni very well, for their thoughtful help with my analysis of *Per Orchestra*. Thanks to Marco Visconti Prasca, who initially gave me the score for *Per Orchestra*, and planted the seed that would result in this dissertation. Many thanks to Virginia Guastella for her invaluable assistance and friendship in Bologna. Many thanks to Michael Barkl, for his superb analysis of *Etwas*, and the countless e-mail discussions that greatly helped my understanding of Donatoni's compositional process.

I would like to thank my committee, Dr. Steven Stucky, Dr. Roberto Sierra, Dr. Kristin Taavola, and Dr. Steven Pond, for their support throughout my wonderful years at Cornell. I wish to thank Marianne Tettlebaum for her help with Adorno, Mark Masry for technical and other support, and Sarah Lagrotteria for being there through thick and thin.

TABLE OF CONTENTS

Chapter 1 Introduction.....	1
Chapter 2 Analysis of <i>Per Orchestra</i>	12
Chapter 3 Analysis of <i>Etwas ruhiger im Ausdruck</i>	70
Chapter 4 Conclusion.....	104
Appendix – Translations of all Performance Instructions in <i>Per Orchestra</i>	110
Bibliography.....	153

LIST OF FIGURES

Chapter One

Figure 1. 1 Stylistic Periods and Representative Works.....	4
---	---

Chapter Two

Figure 2. 1 Inscription on cover page of <i>Per Orchestra</i>	13
Figure 2. 2 Internal and external organizational relationships in Versions I and II	16
Figure 2. 3 Panel I, 2 Rhythmic choices for Flutes 1-4.....	18
Figure 2. 4 Pitch distribution in winds and brass	18
Figure 2. 5 Pitch distribution in strings	19
Figure 2. 6 Panel I,2 Pitch reliance between winds/brass and strings.....	19
Figure 2. 7 Panel I,7 Flutes and clarinets	20
Figure 2. 8 Panel I,7 Trumpets, horns, and trombones.....	20
Figure 2. 9 Panel I,7 Organ, timpani, percussion	20
Figure 2. 10 Panel I,7 Strings	21
Figure 2. 11 Panel I,9 Final 6-note chord	22
Figure 2. 12 Panel I,9 11-pitch chord from Panel 6, with the extracted 6-note chord in Panel 9.....	22
Figure 2. 13 Panel I,9 Orchestration of final chord	22
Figure 2. 14 Panel I,9 Detail showing woodwinds, trumpets, horns, and trombones	23
Figure 2. 15 Panel I,11 Symmetry in the trombone parts.....	24
Figure 2. 16 Panel I,11 Number or gestures per part.....	25
Figure 2. 17 Panel II,2 Detail	25
Figure 2. 18 Panel II,3 Initial pitches	26
Figure 2. 19 Panel II,3 Organ	26
Figure 2. 20 Panel II,3 Detail	28
Figure 2. 21 Panel II,6 Initial and Final Chords	29
Figure 2. 22 Detail of strings from Version I, Panel 1	31
Figure 2. 23 Panel I,1 Motivic derivation in Strings	33
Figure 2. 24 symmetrical 10-pitch chords	34
Figure 2. 25 Left side: section 3, winds; right side: section 4, strings	35
Figure 2. 26 The 13 chords of Panel 5.....	36
Figure 2. 27 Transpositional relationship between sections.....	37
Figure 2. 28 Panel I, 5,Section 1, Circular pitch relationship in Flutes.....	37
Figure 2. 29 Panel I, 5 Pitch Derivations from Section 1 to 2.....	38
Figure 2. 30 12-note pitch aggregate for Section 1	39
Figure 2. 31 Pitch arrangement for sections 2 - 6.....	40
Figure 2. 32 Panel II, 7,Section A Organ	42
Figure 2. 33 Panel II, 7,Section A Pitch Ranges of Orchestral Families	42
Figure 2. 34 Panel II, 7, Section B Trumpets, Horns, and Trombones (four staves each).....	43
Figure 2. 35 Panel II, 7,Section B Intervallic Relationships in Trumpet 1	43
Figure 2. 36 Panel II, 7,Section B Combinatorial Motives in Trumpets and Trombones.....	43
Figure 2. 37 Panel II, 7,Section B Mirror Inversion Between Tpt. 4 and Trb.1.....	44

Figure 2. 38 Panel II,7, Section C Organ (the top two boxed staves have treble clefs and the bottom staff, bass clef)	44
Figure 2. 39 Panel II,7,Section C, Flutes 1 and 2 (circles and arrows are author's)	45
Figure 2. 40 Panel II, 7,Section C Flutes (staves 1-4) and Clarinets (staves 5-8)	46
Figure 2. 41 Panel II, 7,Section C Trumpets	46
Figure 2. 42 Panel II,7,Section D Pitch ranges of orchestral families	46
Figure 2. 43 Panel II, 7,Section D Interval patterns in woodwinds (excluding inverse pairs).....	47
Figure 2. 44 Panel II, 7, Section E Symmetry Between Fl.1 and Fl.2	48
Figure 2. 45 Panel II,7, Section E Combinatorial Motives in Flutes 1-4.....	48
Figure 2. 46 Panel II, Section F Detail: Trumpets 1-4, Group A.....	49
Figure 2. 47 Panel II, 7 Section F organ part.....	50
Figure 2. 48 Panel II, 7 Section F pitch/range distribution.....	50
Figure 2. 49 Panel II, 7 Section G pitch/range distribution	50
Figure 2. 50 Panel I,8 Relationship between Bach's and Donatoni's four versetti	52
Figure 2. 51 Panel I,8 Detail: the first two versetti.....	52
Figure 2. 52 Panel I,8 detail of flute and clarinet parts.....	53
Figure 2. 53 Panel I,8 Symmetrical interval sequence in flutes and clarinets	53
Figure 2. 54 Panel I,10 Detail of bells	54
Figure 2. 55 Panel I,10 Flutes and clarinet parts	55
Figure 2. 56 Panel I,10 Intervallic symmetry in the 39-note sequence	55
Figure 2. 57 Panel II,5 Detail: Trombones	56
Figure 2. 58 Panel II,5 Symmetry in 1st Trumpet Sequence	57
Figure 2. 59 Panel I,12 Detail: Flutes and Clarinets	58
Figure 2. 60 Panel II, 8a Pitch ranges	58
Figure 2. 61 Panel II, 8a, Organ ranges	59
Figure 2. 62 Intervallic construction of measures 1-8	62
Figure 2. 63 Interval grid for measures 1-8	62
Figure 2. 64 Panel II,1 Basic sonority	63
Figure 2. 65 Panel II,1 Flute 1, Chord Shifting	64
Figure 2. 66 Panel II,1 Horn 2, Note Addition and Subtraction	64
Figure 2. 67 Panel II,1 Brass.....	65
Figure 2. 68 Panel II,1 Flutes and Clarinets	65

Chapter Three

Figure 3. 1Fünf Klavierstücke, op.23, II.....	69
Figure 3. 2 Left hand pitches from the Schoenberg Text	70
Figure 3. 3 Gradual diminution of rhythmic values in episode I.....	71
Figure 3. 4 Basic Transposition	71
Figure 3. 5 Boundary Range in <i>Etwas ruhiger im Ausdruck</i>	72
Figure 3. 6 Double Sequence	72
Figure 3. 7 Diachronic Manipulation of a Synchronic Phenomenon	73
Figure 3. 8 <i>Etwas</i> , mm. 55-56, Violin	74
Figure 3. 9 Intervallic coherence between the pilot-sequence and its double	75
Figure 3. 10 Pilot-sequence and its inversion	75

Figure 3. 11 <i>Etwas</i> , m.71, Flute.....	75
Figure 3. 12 "Correct" solution for m.71, Flute.....	75
Figure 3. 13 Interval Comparison Between Figures 11 and 12.....	77
Figure 3. 14 Fragment from m.69, Flute	77
Figure 3. 15 "Correct" version of m.69, Flute	77
Figure 3. 16 The irreducible Periodic Sequence	79
Figure 3. 17 Range of the Irreducible Periodic Sequence	80
Figure 3. 18 Symmetrical pitch repetition in the irreducible periodic sequence	80
Figure 3. 19 Internal symmetry in the irreducible periodic sequence	80
Figure 3. 20 Inverted Pitch Relationship (Barkl, 39)	83
Figure 3. 21 Transposition based on the left hand of the Schoenberg Text	84
Figure 3. 22 Relation of Transposition Level to the Tuplet Sequence.....	84
Figure 3. 23 Interval Diminution.....	86
Figure 3. 24 Retention of Dynamics Through Two Variations.....	87
Figure 3. 25 Retention of Dynamics in the Cello.....	87
Figure 3. 26 Intervallic Diminution between m.1 and m.41, Piano	88
Figure 3. 27 M.41 to M.61, Piano: Inverted Pitch Relationships.....	89
Figure 3. 28 M.81, Piano	89
Figure 3. 29 Summary of Part I, Piano	90
Figure 3. 30 Process of diminution in mm. 100-102	90
Figure 3. 31 M.101, Piano: Grace note derivation	91
Figure 3. 32 Pilot Sequence and Schoenberg Text relation to m.146	93
Figure 3. 33 Pilot Sequence and Schoenberg Text relation to m.147	94
Figure 3. 34 Rotational Transpositions and Inversions of the Primary Sequence.....	96
Figure 3. 35 Period 1 (mm.1-20), Piano.....	97
Figure 3. 36 Measure 7, Piencikowski analysis	98
Figure 3. 37 Barkl Analysis.....	98

Appendix

Figure A. 1 Bach Choral Used in I,8 and II,5.....	122
Figure A. 2 Panel II,7 Possible Paths of Execution.....	133

CHAPTER ONE INTRODUCTION

Franco Donatoni is best known for his works after about 1967, music that exemplifies an inventive, virtuosic style, often treating instruments in a brilliant, Baroque manner. Yet between 1962 and 1967, Franco Donatoni's musical style evolved from one marked by John Cage's aleatoric principles to a vigorously mechanistic style where an artisanal approach to composition was valued above the creative process. By the late 1970s, the negativity of total serialism and total aleatoricism would be abandoned in favor of a new process that still retained elements of freedom and precision without being bound by them.

The term “negativity” stems from Adorno’s concept of *Negative Dialektik*, and his decoding of a capitalistic, post-War world. The concept of non-identity, discussed at length in Chapter Two of *Negative Dialectics*¹, is vital to this thesis, which explores Donatoni’s own exploration of creative self-annihilation. In other words, I use the term “negativity” to demonstrate Donatoni’s attempt to remove himself from the compositional process.

In this dissertation I aim to show compositional traits that Donatoni rejected and retained during these early years of transition. I will examine *Per Orchestra* (1962), written at the beginning of his self-proclaimed second period (Donatoni, *Il Sigaro di Armando*, 8), and trace Donatoni’s development from this work (which follows a chance-driven, conceptual model inspired by Cage while retaining serial procedures used by Stockhausen and the Darmstadt School), to *Etwas ruhiger im Ausdruck* (1967), a work that is virtually derived rather than composed, where every note is generated by automatisms derived from a Schoenberg quotation. This chapter will outline Donatoni’s biography and briefly distinguish his stylistic periods. I will

¹ Adorno, T.W. , *Negative Dialektik*, Suhrkamp, 2000.

also discuss the major sources and studies I used.

Chapter Two is a close analysis of *Per Orchestra*. This highly complex work, based heavily on elements of chance, received a disastrous premiere, and plunged Donatoni into a compositional and psychological crisis that finally resulted in a year of total silence (1966). Although he finally opted to reject indeterminacy and aleatory as compositional tools, *Per Orchestra* shows Donatoni's early fascination with musical games, mechanisms, puppets, and theatre, which became staples throughout his entire evolution as a composer.

Chapter Three takes an in-depth look at *Etwas ruhiger im Ausdruck* (1967). The work marked Donatoni's rebirth as a composer-artisan, and I examine his craftsman-like approach to composition, one that rigorously follows mechanisms while consciously distinguishing itself from serialism. I compare the two major analyses of this work by Michael Barkl and Robert Piencikowski to Donatoni's own self-analysis in his book, *Questo*.

Chapter Four compares *Per Orchestra* and *Etwas ruhiger im Ausdruck*, showing those elements that are to be retained or rejected in later works. I also argue that although the two works on a surface level are markedly polar opposites, both belong to a larger stylistic period of negativity and self-annihilation. In addition, I show that both works strive toward a similar goal: negation of subjectivity.

Major studies

An excellent broad introduction and overview to the music of Donatoni until 1989 (well into his mature, late period) is Gabriella Nangeroni's book *Franco Donatoni* (1989).

The primary source I have used is Donatoni's own writings, especially *Questo* (1970), his first published book. It is a compositional and philosophical treatise taking

as its starting point the “rectification of an error” – the rapport between a composer and the musical material; the error principally being aleatoric technique and his own acceptance and consequent rejection of this method. Donatoni presents an analysis of *Etwas ruhiger im Ausdruck*, showing his post-serialist approach in conflict with the freedom of indeterminism.

Il Sigaro di Armando(1982) is a collection of interviews and essays by the composer. Of special importance is the essay “Teatro musicale oggi” [Musical Theater Today], where Donatoni gives a small formal analysis of *Per Orchestra*. Other essays and interviews help put in perspective his musical and stylistic development.

The major collection of essays written by Italian, French, and British scholars, *Donatoni* (1990) edited by Enzo Restagno, became an important source, most notably for the twenty–page analysis by Robert Piencikowski of *Etwas ruhiger im Ausdruck*, the work that forms the basis of Chapter Three.

The largest English source on Donatoni is a superb Australian dissertation by Michael Barkl, *Franco Donatoni's Etwas ruhiger im Ausdruck* (1985). Comprising of approximately 200 pages, it is perhaps the most comprehensive, in-depth analysis of any work by Donatoni.

As a study of Donatoni's work in indeterminacy, Renzo Cresti's 110-page monograph “on the music and poetics of Franco Donatoni in relation to philosophical and musical problems of the 1950s to today” was invaluable. Cresti traces Donatoni's response in *Per Orchestra* to the music and philosophy of John Cage, the crisis of Western structuralism, the elimination of the Ego, and Adornian negative dialectics.

Stylistic Periods

In 1981, Donatoni divided his own output in terms of seven-year periods: 1955-1962, 1962-1969, 1969-1976, and 1976-1983 (Restagno, *Il Quarto Settennio di*

Franco Donatoni, Catalogue of the Venice Biennale, 1981, p. 123). This first period was of apprenticeship, the second and third were searches for identity, and the fourth was a rediscovery of composition. Other authors also subscribe to this four-part division (with the last period extending until Donatoni's death in 2000), but no one seems to agree on the exact dates. I have instead chosen to group his output by compositional influences or stylistic periods, which consequently allows for more time discrepancies.

DATE	REPRESENTATIVE WORKS	STYLISTIC PERIOD/INFLUENCES
1950	<i>Quartetto I</i>	Apprenticeship - Bartók
1955	<i>Composizione in Quattro Movimenti</i>	Apprenticeship - Italian dodecaphony
1957	<i>Tre Improvvisazioni</i>	Apprenticeship - Darmstadt - Boulez
1959-		
1961	<i>Doubles</i> (1961), <i>For Grilly</i> (1960), <i>Puppenspiel I</i> (1961)	Post-Serialism - Stockhausen
1962-	<i>Per orchestra</i> (1962), <i>Quartetto IV</i> ('63), <i>Asar</i> ('64),	Indeterminacy/Chance – Cage
1965	<i>Babai</i> ('64), <i>Black and White</i> ('64)	
1966		INVENTIVE PARALYSIS
1967-	<i>Etwas ruhiger im Ausdruck</i> (1967), <i>Souvenir</i> ('67),	Automatisms - Negative Period
1972	<i>Doubles II</i> ('70), <i>To Earle Two</i> ('72)	
1975-	<i>Spiri</i> (1977), <i>Arie</i> ('78), <i>The Heart's Eye</i> ('80), <i>Le ruisseau sur l'escalier</i>	
2000	('80), <i>Hot</i> ('89), <i>Prom</i> ('99)	Mature Positive Period

Figure 1. 1 Stylistic Periods and Representative Works

Per Orchestra and *Etwas ruhiger im Ausdruck* can be categorized into two major compositional periods for Donatoni; *Per Orchestra* falls into the Cageian period of indeterminacy (1962-1965), while *Etwas ruhiger im Ausdruck* belongs to a period of automatistic, process-driven composition. Below, I present the major periods that led up to the creation of these two works.

Bartók Influences

The first, from 1950-1954, can be categorized as the Early Period, with works strongly influenced by an earlier generation of composers, especially Bartók, and Goffredo Petrassi. His first published work, *Quartetto I*, a string quartet, was described by Bortolotto as “a Bartókian tracing of disarming ingenuity. . .” (Mario Bortolotto, *Fase seconda. Studi sulla Nuova Musica*, Torino, Einaudi 1969, p.227). In 1981, Donatoni underlined the importance of Bartok’s influence in his studies:

The encounter – in 1949 – with the Fourth Quartet through a radio broadcast with commentary by Guido Turchi, was not of a rational nature but completely and unexpectedly emotional. I want to add that the contentment was revelatory, transferred by intuitive channels, it nourished me in a totally inadvertent way: the assimilation was disturbed only by my inexperience, by the insufficient technique and by every sort of awkwardness that even today I can recognize but not deride. (*Sigaro*, 88)

Works that followed *Quartetto I* bear Bartókian references such as regular irregularities in rhythm, polytonality, and meticulous counterpoint. Throughout his career, the Fourth Quartet of Bartók would remain an indelible influence. The connection between both composers is especially apparent in the fascination with numerology and the organic process or germination from a single cell (*Sigaro*, 10). In 1981, Donatoni listed the matrices of a technique that he believed both Bartók and he shared:

1. Exhibition of the cell and growth of the organism.
2. Growth without development: conservation of the fragment.
3. Juxtaposition of organisms: mutation, not evolution.
4. Stasis of pulsation, continuous time, “night” condition, murmuring, vibration as a timbral mobility in an immobile space. (*Sigaro*, 89)

Darmstadt; Maderna, Stockhausen, and Boulez influences

In 1953, Donatoni met Bruno Maderna, the elder Italian composer/conductor. This encounter was the first of a series of crises to plague Donatoni's tormented career. Maderna directed Donatoni to the significance of the post-Weberian perspective, which at that time was foreign to the young composer. Maderna invited Donatoni to Darmstadt, where he immersed himself in the avant-garde of postwar Europe. His interest in Bartók expanded to the twelve-tone method, through the school of "Italian dodecaphony." *Composizione in quattro movimenti* (1955) references Dallapiccola through its free tonal implications derived from the row, yet strictly serialized rhythm.

In his *Tre improvvisazioni* for piano (1957), one clearly hears the influences of structuralism, with Boulez in particular. The score is filled with leaps from the highest to the lowest registers of the keyboard, a refusal to actuate a hierarchy between principal and secondary lines, and serialization of accents, rhythms, and pitches (Montecchi, 79). The composer himself admitted:

The works for piano [*Tre improvvisazioni*] were a bit limited to the Second Sonata of Boulez. It was the period when I frequented Darmstadt, where I went in '54, '56, '58, and '61, and took in diverse influences: for example in *Quartetto II* (1958) there is the presence of Berio and Nono, while in *Movimento* (for harpsichord, piano and nine instruments) [1959] and *Per Grilly* [1960] one hears a bit of Stockhausen from the time of *Kontra-Punkte, Zeitmasse*, that I had heard in Baden-Baden and that represented for me a real internal explosion. (*Sigaro*, 8)

Between 1959 and 1962, Donatoni wrote *Movimento*, *Strophes*, *Sezioni*, *For Grilly*, *Puppenspiel I*, *Doubles*, and *Quartetto III*. The organization of these works, according to Donatoni, became more and more undifferentiated, always attempting to work with a preconstituted, embryonic cell that could guarantee its auto-sufficiency (Armando, 110). Stockhausen's influence can be seen in works such as *Strophes* (1959) for orchestra (dedicated to Petrassi) and *Movimento* (1959) for harpsichord,

piano, and nine instruments. *Strophes* shows influences of Stockhausen's *Gruppen für drei Orchester* (1957), conducted in Cologne in 1958 by Boulez, Maderna, and Stockhausen. Donatoni begins where *Gruppen* ends: stripping off all optimistic residue and presenting a negation of Stockhausen's ideal of "total control of the sonorous universe, of effectively possessing and directing all that is thinkable" (Montecchi, 85). In *Questo*, Donatoni writes of his debt to Stockhausen, "My artisanship was born through the invention of others . . . and all this was born under the sign of musical structuralism coined by Stockhausen" (*Questo*, 14).

For Grilly is a study in pointillism and the application of serialism in all parameters. In many ways, it is a deconstruction of Stockhausen's *Zeitmasse*. "As *Zeitmasse* exalts in rhythmic and intervallic transparency, *For Grilly* disfigures every clean profile, confounding every solidly univocal valence . . . The glitter of Stockhasen is transformed into a pulverized sound that could be compared to the virtuosic game or restlessness of a gently delirious piece by Pollock" (Bortolotto, 237).

The importance of *Puppenspiel I, studi per una musica di scena* (1961), lies in its suggestive theatricality (Heinrich von Kleist's marionette theater) and in being Donatoni's first work to devitalize intervals in the Webernian sense (the *morts dell'intervallo* is discussed further in Chapter Three); with the indifferentiation of the interval came a destruction of form, hence panel construction (*Sigaro*, 33). Hand in hand, these two elements would later come together to form *Per Orchestra*.

John Cage Influence

The presence of John Cage in Darmstadt during the 1950s made a major impact on the music of Donatoni. Cage's *Music of Changes* (1951) used the ancient Chinese text *I-Ching: Book of Changes* to derive pitches through chance operations. With this work, Cage destroyed the Romantic ideal of the composer as creator-genius-Ego, as well as the formal conception of the Work of Art emanating from an Id-Creator (Cresti, 40). The *Alea* of Cage and his school (La Monte Young, Harry Partch, Christian Wolff, and Earle Brown) timidly entered the highly intolerant world of Darmstadt's *Neue Musik* only a decade later. Although Donatoni found a great affinity in Cage's New Dadaistic deconstruction of Western musical formalism, he recognized the difference between Cage's American positive idealism and post-war European crises of identity. "The simple freshness, the juvenile candor, the innocent joy of the *plein de vie*, happy clown, John Cage, disappeared under the terrible weight of the serious middle European culture, that buried, during the horrible massacres of Auschwitz, the too delicate perfumes of the orient" (Cresti, 42).

The second period, beginning in 1962 with *Per Orchestra*, marked a change toward indeterminacy. This period of production (lasting until 1972) saw a gradual reduction of the ethical and decision-making role of the composer (Montecchi 80). The five major works of indeterminacy (including *Per Orchestra*), written between 1962 and 1964, are *Quartetto IV (Zrcadlo)* for string quartet, *Asar* for ten stringed instruments, *Black and White* for thirty-seven stringed instruments, and *Babai* for harpsichord. The three works for stringed instruments are not really scores, rather performance instructions for the little material given.

The Fourth Quartet, *Zrcadlo* (1963) takes its title from the Czech word for 'mirror,' and uses the same sort of musical games used in *Per Orchestra*. Each of the four players has a daily newspaper, a part (subdivided into 43 sections, each

containing single or combined elements such as pitches, ranges, intensities, modes of emission, etc., while excluding rhythms), and a set of instructions. The players mentally read titles of articles, ads, or illustrations, and then choose rhythms based on the syllables and accents that the words or pictures suggest.

Asar (1964) consists of ten parts (each part consists of twenty-one models of behavior, placed in boxes) that may be played interchangeably by any of the ten players. Each player observes an audience member, and when any movement is detected, a player must execute one of the models. Each part may be turned upside down and read in retrograde, as the models of behavior are not traditionally notated, but instead are graphic symbols much like those used by Ligeti to describe the aural shape of his electronic music.

Black and White (1964) is also comprised of parts that may be played interchangeably by any combination of 37 string players, and is directed by a conductor who must mentally keep a precise metronomic count in seconds, and cues only prime numbers. The director's "score" simply describes the gestures possible, without showing the players' parts. The 37 parts are barer than any of Donatoni's other indeterminate works, giving little to no indication of time, nuance, or pitch. In 1971, Mario Baroni described Donatoni's works of indeterminacy as seeming "to reduce string writing to a sort of dust that drifts or dissolves in an irregular manner, while the singular atoms of this dust don't have any connection between themselves other than all being similar and never equal, always near and never connected" (Montecchi, 94).

In *Babai* (1964), Donatoni took his earlier, post-serialist harpsichord work, *Doubles* (1961), and transformed it into a work of total indeterminacy, much like the piano works of Earle Brown. From *Per Orchestra*, the concept of using *glissatori* (wooden blocks of various sizes covered in silk) is taken to a new extreme: the player

can only use the blocks, never touching the keyboard with fingers. Mario Bortolotto has called *Babai* parasitic, and the ultimate in Donatoni's phase of negativity, that of total annihilation of both the subject (*Doubles*) and the material itself (Montecchi, 95).

Automatisms and Process-driven composition (1967-1972)

Just as Donatoni rejected the structuralism of Boulez, he discarded Cagian indeterminism in favor of a sort of hyperdeterminism. The 12-tone system, used extensively in earlier periods, was also abandoned in favor of the motive, cell, or fragment that could then be organically developed (or dissolved) using strict processes and automatisms.

Michael Barkl has suggested that this period was also a renunciation of composing original material (Barkl, 22). Certainly, *Souvenir* (1967) and *Etwas ruhiger im Ausdruck* (1967), *Orts* (1968), *Black and White N° 2*, and *Doubles II* (1970) support that claim. *Souvenir*, *Kammersymphonie* op. 18 (the full title) is constructed solely by rearranging and elaborating 363 fragments from Stockhausen's *Gruppen*. *Etwas Ruhiger im Ausdruck* uses similar processes to transform a fragment from Schoenberg's op. 23.

Several works from this period, although not borrowing from other composers, use previously composed material by Donatoni. *Orts*, also called *Souvenir N° 2*, is a reworking of the first *Souvenir*, the same for *Black and White II*, for keyboard instrument, which refers to *Black and White* (1964), for thirty-seven string instruments. *Doubles II*, for orchestra, derives from the early, post-serial *Doubles*, for harpsichord.

To Earle Two (1972), based on fragments from *Doubles II*, was the culmination of this period. Donatoni wrote, "I wrote a piece that served nothing, *To Earle Two* was made thinking of Earle Brown, but in reality, constructed against the

old indeterminism, that didn't belong to me any longer" (*Sigaro*, 8). This work is essentially a gigantic expansion of *Etwas*, and with it, I believe, came the gradual dissolution of Donatoni's style of hyperdeterminism in favor of a liberated, inventive style that would emerge as his final, distinct language.

CHAPTER TWO

Analysis of *Per Orchestra*

Per Orchestra is an early work by Donatoni belonging to his self-proclaimed second stylistic period, one of indeterminacy and chance operations (1962-1965). According to the composer, the work brought about a true musical and psychic disassociation. This four-year period exhausted him, and led to a total creative silence (*Il Sigaro di Armando*, 8). Nineteen-sixty-six became a year barren of creative work, with Donatoni instead spending his time making a piano reduction of Dallapiccola's *Odissea* and studying philosophy, especially Adorno and the Viennese School, Kafka, Musil, texts on alchemy, and oriental mysticism (Restagno, 185). For Donatoni, indeterminacy and non-identity went hand and hand with a crisis of Western culture — its apathy and cynicism. Of course, Donatoni was aware of his contemporaries who were creating along similar lines: *Klavierstück XI* of Stockhausen, the 3rd Piano Sonata of Boulez, Kagel's minuscule whispers, and above all, Cage. Yet, he distanced himself from them:

My distance from Stockhausen, despite my admiration, is that he is always perfecting the ego and the music, while I wish to destroy both. (Donatoni, *Il Sigaro di Armando*, 109)

The difference between me and Cage is that for him the work doesn't exist *a priori*, while for me it is very present, insidiously, and must be removed from its monolithic unity. Maybe the significance of my work is simply the effort with which this analysis is conducted. (*Sigaro*, 111)

The controlled aleatory of Boulez was not enough for Donatoni: "a work constructed from its form and pathways had a certain able, evasive aesthetic. As much as aleatoric processes had mobility and freedom, they conserved an aesthetic dignity that he recognized as a formed work." Instead, he was interested in an annihilation of the musical material. As Enzo Restagno point out, *Per Orchestra*'s material is of a

rudimentary poverty. "Unrelated materials - intervals, registers, densities, sonorities, are coldly arranged in an inventory as if it were a matter of unknown fossils" (Restagno, 185).

As the influence of serialism wore off, the composer progressively rejected intervals for a "swarming sonorous mass" (Cresti, 37). *Puppenspiel*, written in 1961, has many direct correlations to *Per Orchestra*, and uses similar compositional techniques:

1. Boxes that contain limited aleatorism (much like those found in Lutosławski).
2. Lengthy indications for the conductor, who often begins and ends sections, giving cues according to points of reference, rather than strict metric indications.
3. Symbolic and graphic notation.
4. Panel construction: development is abandoned in favor of a succession of events.
5. Instrumental writing that uses effects.
6. Gesture is more important than specific pitch.
7. References to puppets: Stravinsky's *Petrushka*, and its mechanistic sound come to mind.

For Donatoni, the *suicidio dell'intervallo* marked his response to the intolerance and rigidity of structuralism. Donatoni often used this term, *the death of the interval*, through his periods of indeterminacy and automatic processes. It refers to a use of intervals in such a way that destroys any sense of their function or distinctiveness. Like Cage, he felt that the role of the composer as ego-artist-creator-sacrifier was dead, and that only as an artigianal craftsman could a composer find a new path (*Questo*, 16).

After *Puppenspiel I*, my farthest reconnaissance into the Varesian sector of unexplored sonic study concluded with *Per Orchestra*. Strings that play with fingernail brushes, an organ that uses almost always blocks of wood covered in felt [glissatori], winds with the sounds of finger clickings, etc. . . The paradox of every research in "new" sounds is born out of a progressive dissolution of Western structuralism. (Cresti, 43)

On the first page of the score, above the words, *Per Orchestra*, appears a circular anagram:



Figure 2. 1 Inscription on cover page of *Per Orchestra*

This collection of letters refers to the Jewish mythological creature, the Golem, which came to life when certain holy letters were inscribed on its forehead. The Golem was created by rabbis in the Middle Ages in Europe to protect Jewish communities from raging anti-Semitism. The idea of the puppet appears previously in Donatoni's *Puppenspiel* (1961), a work inspired by the writings of Heinrich von Kleist¹. In the case of *Per Orchestra*, the director is reduced to a sort of humiliated marionette whose gestures are superfluous.

A “magic” word in itself, filled with numerological possibilities: “Golemet” combines the word “golem” with “emet”, the Hebrew word for “truth.” Additionally, the seven letters are connected to the seventh movement in the second version (*Sigaro*, 19). The two letter E's, set facing each other, and shared by both words, become focal pitches in the piece. Aside from this symbol, the title page has an epigraph drawn from Kafka, “Only to hear the cry to which nothing responds and to which nothing hinders the force of the voice, that then rises, without opposition, unable to come to a stop, even when extinguished.” According to the composer, the anagram should be the title, and *Per Orchestra* was taken for bureaucratic reasons (since registering the piece

¹ *Puppenspiel* was inspired by Kleist's (1777-1811), “Über das Marionettentheater: Aufsätze und Anekdoten,” Frankfurt am Main: Insel Verlag 1904. The essay is a short parable with puppetry as allegory for the Fall of Man and the discovery of self-consciousness.

required normal, horizontally positioned text). The score itself is abundantly filled with graphic symbols, and the composer wishes that they be taken as visual examples of performance behavior rather than a set of guidelines to follow. Each of the twelve movements is preceded by a lengthy instruction for the instrumentalists and conductor, the first being: the conductor's gestures should have the character of invitation to play or to end, and the personal decisions of each player prevail over the collective whole (although the conductor may choose the order of the movements). In all, there are 28 pages of music and 31 pages of text. The work is in two versions that must be performed together, in symmetrical positions on the program. The first version has twelve movements and the second has eight.

Renzo Cresti points out that the immense construction of materials — extended techniques that result in indeterminate sounds (*smanicamenti* in the strings, irregular oscillations of fluttertonguing in the winds, *glissandi*, stems without noteheads that result in aleatoric frequencies, distorted material and rhythms, etc.) — points to a self-destruction of the Ego. Cresti compares this negativism to Kagel's work, *Metapièce* (1961), a piano work that must be played in conjunction with any other composition. If pitted against an orchestral work, it would be reduced to inaudibility, yet something would still occur. In the light of this comparison, the significance of the Kafka epigraph becomes clearer. The destruction of the Self is the only possibility when entering the Kafkian castle of musical utopia. To accomplish this, the composer must transform to a child-like state. The incapacity and paralysis of creation can only be confronted by innocence.

Every attempt at building is annihilated; the paths of indeterminacy know only tragic fragments in the announcement of the apocalypse of Adornian memory. The divergence from thought and music is actuated with courageous cynicism in the pulverized fabric of automatisms, in the uneasy and impassive seething of a material in growth. *Per Orchestra nur ein Mal.* It doesn't describe or represent (the Abyss): it is. The sounds germinate

naturally from initial classification, from the reductive act or thrust, fuse, push until the autonomous unfolding of the material. (Cresti, 46)

Adorno's concepts of negativity pervaded Donatoni's work in this period. Coupled with Nietzschean ideas of the Ego, the Cageian experience, and Kafka's innocence, Donatoni attempted to destroy the capacity of will and distinguishing of material. The negation of composition, and Donatoni's preference for the term *indeterminacy* over *alea* indicates his interest in John Cage and Earl Browne.

For Adorno, the non-immediacy and hostility of modern artistic forms is the proper expression of the negative in an absurd, inhuman world. That which exhibits negativism encapsulates the hope of overcoming alienation, the sense of a utopian happiness. (Cresti, 51)

Donatoni conducted the first performance of *Per Orchestra* in Warsaw, 1963. In the program notes, he wrote, "the gestures of the director represent possible forms (not the form), in reality they are movements (acts without real object, although an image of a true act. " The work, with its intricate and voluminous instructions, is a tour de force for a conductor. Bearing in mind the dance-like gestures of the conductor, *Per Orchestra* can be considered a work of musical theater. Vindicating this claim, note that Donatoni discusses the work in an article called, "Teatro musicale oggi" (1964) in *Il Sigaro di Armando*. Still, Donatoni was a relatively inexperienced conductor and the first performance, according to Zoltan Pesko, was a disaster.

The two versions of *Per Orchestra* suggest several links. Donatoni himself puzzlingly writes that, "The dedication of the first version to Aldo Clementi and the second to Daniele Paris is not absent from compositional implications" (*Il Sigaro di Armando*, 20). The role of these two men in each version is unclear, aside from a note in the score, attributing Aldo Clementi's suggestion of the use of *glissatori* clusters in

the organ part.² More unambiguous is the rapport between material and gesture: a similar gesture working under two different materials, and similar material operating with two different gestures. The idea of opposition is found throughout the work. "The terrible confusion, rattling, and refuse of destruction [le scariche di distruzione] aspire to their contrary — absolute silence. . . The work doesn't have a stable conclusion, but terminates from nervous exhaustion" (Cresti, 47).

Analysis of *Per Orchestra*

This analysis groups the twenty panels of versions II and I in five collections, which isolate compositional techniques crucial to each panel. "Panel construction" refers to composition that graphically (and often aurally) creates section breaks. In the case of *Per Orchestra*, each foldout page is a self-contained panel, with its own set of guidelines for performance. The five collections are:

- A. Panels that are concerned with only one or two clear gestures, rhythms, or chords.
- B. Panels that are themselves constructed of several panels.
- C. Panels whose foremost characteristic is a running sequence of pitches to be played as fast as possible.
- D. Panels that make use of number or counting games.
- E. Panels with transformations of a chord.

The figure below presents the twelve panels of Version I and the eight panels of Version II, demonstrating those panels that share similar collections. The six panels connected by arrows share the most explicit correlations. Version I,4 and Version II,1 are the only two panels that explore chord transformation. Version I,5 and II,8 belong to Collection C, yet share a deeper connection –both deconstruct a Bach chorale.

² Clementi's style "avoids all serial principles; its basic element becomes intervallic logic which, by means of the employment of 'disassociative' or 'aggregate' intervals avoids the formation of any traditional harmonic or melodic figures. . . Clementi has also concerned himself with 'de-creation,' with anti-materials, as can be seen in his ballet *Collage*" (Bortolotto, "New Music," 69). Clementi's intervallic method of composition and interest in "de-creation" may well be the reason for Donatoni's dedication.

Version I,12 and II,8a-8i strengthen their collection connection by their similar placement in each version.

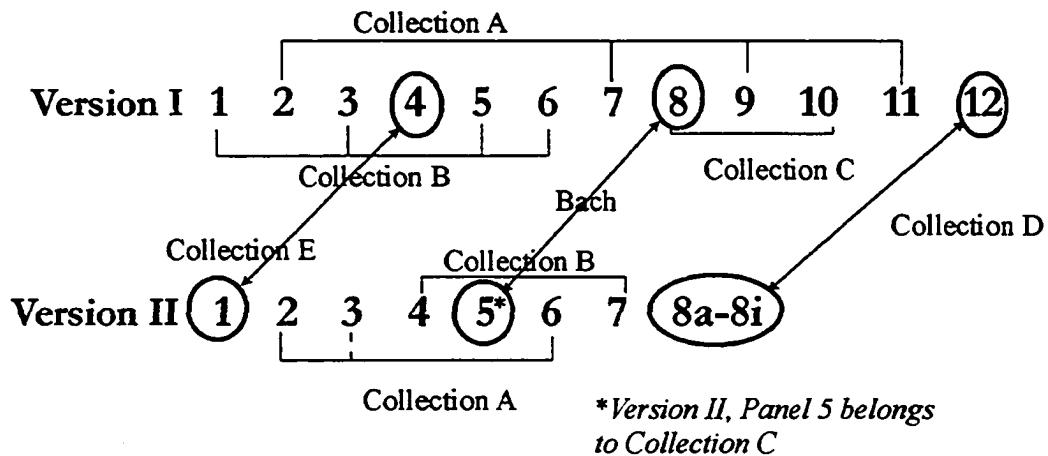


Figure 2.2 Internal and external organizational relationships in Versions I and II

See the appendix for the translated performance indications that apply for the conductor and musicians in each panel. Each panel in *Per Orchestra* has extensive performance notes that notably affect the final outcome. These notes often manipulate the panel to produce something quite different from what the score itself would generate.

Collection A: The Panels of Clear Gesture, Rhythm, or Harmony

The following seven panels, four from Version I, and three from Version II, can be categorized as Collection A, panels exhibiting the clearest, most concise facets. It is the largest of the five collections. Harmony is the principal element of Version I, Panel 2 and Version II, panel 2. Both have only one chord, with effectively no transformation. While Version I,2 also presents simple, limited rhythmic choices, Version II,2 has musicians intoning held pitches *sans* rhythm. Panels I,7 and I,11 are panels of gesture, where pitches and intervals have been replaced by graphic symbols (curlicues, headless stems, wavy lines, etc.). Though the notation is indeterminate, the

concise and careful orchestration makes these gestures clear and straightforward. Panels I,9, II,3, and II,6 are also gestural panels, but can be grouped together, since all three involve large-scale ascent or descent. Panels I,9 and II,6 are most strongly related, with virtually exact performance indications, differing in that I,9 has an orchestral descent, and II,6 has an orchestral ascent. Panel II,3 combines properties of the latter two panels and presents large-scale contrary motion.

VERSION I, PANEL 2 – RHYTHMIC PANEL

Panel 2's principal facet is rhythm. Players are limited to a choice of one of four simple rhythmic motives.

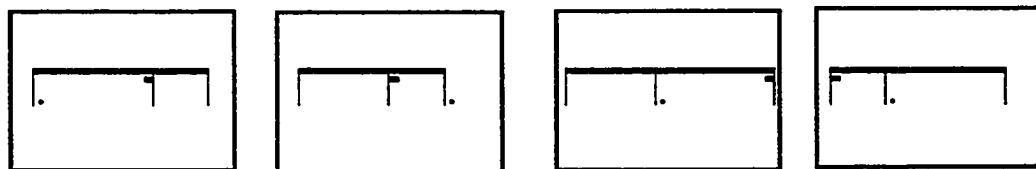


Figure 2.3 Panel I, 2 Rhythmic choices for Flutes 1-4

The winds and brass parts offer the choice of either two or three pitches from which the player chooses one. Strings choose pitches from given ranges (a minor 9th, with the exception of Vln.5, a major 7th, and Vla.1, a minor 6th). Unsurprisingly, the pitches found in the winds and brass make a full twelve-pitch aggregate (with octave duplication of G). From the figures below, we can trace the process of note selection.

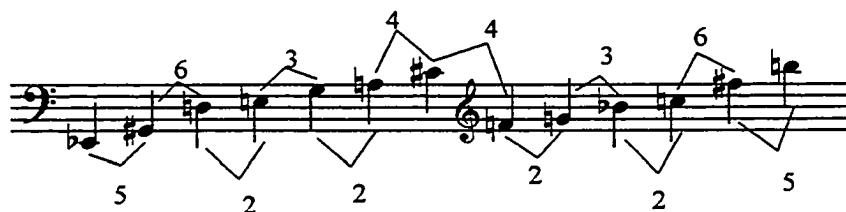


Figure 2.4 Pitch distribution in winds and brass

The series is constructed symmetrically, with C-sharp as the axis. The symmetry in the strings can be found by examining the vertical relationship between first pitches in each instrument:

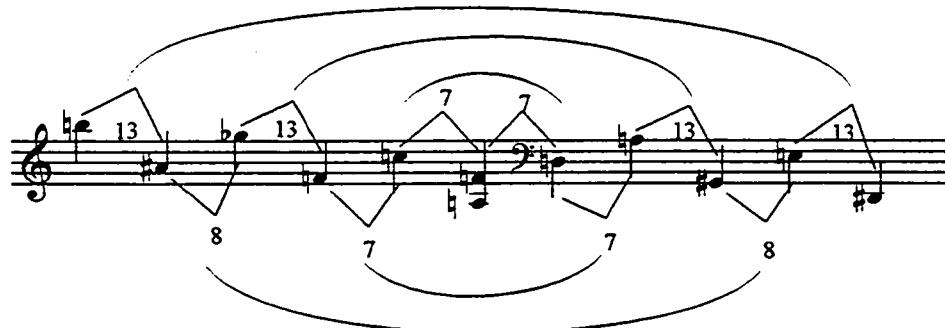


Figure 2.5 Pitch distribution in strings

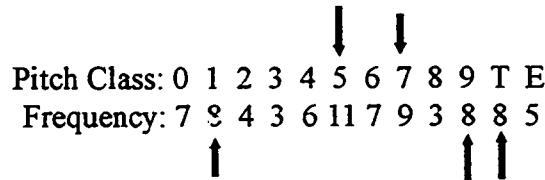


Figure 2.6 Frequency of Pitch Classes

From fig. 2.6 we see that pitch classes 1, 5, 7, 9, and T are prevalent, with pitch classes 5 and 7 (F and G) appearing most frequently. Next, an examination of the strings' pitch ranges shows its reliance on the winds/brass pitches (or vice versa):

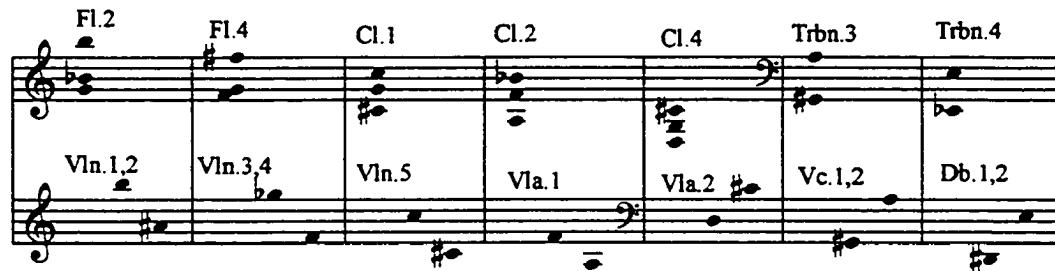


Figure 2. 7 Panel I,2 Pitch reliance between winds/brass and strings

VERSION I, PANEL 7 - GESTURAL PANEL³

The orchestra is divided into four major groups, each with a unique extended technique or method of playing:

1. Winds
2. Brass
3. Percussion and organ
4. Strings

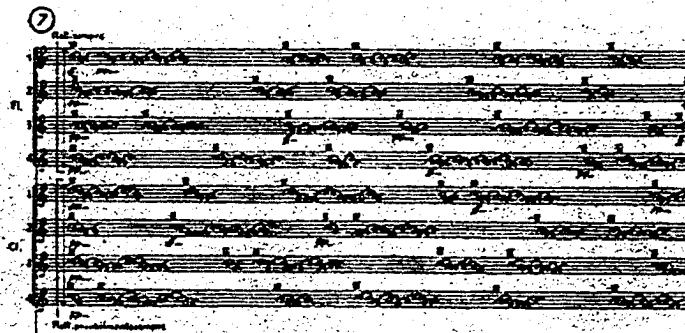


Figure 2. 8 Panel I,7 Flutes and clarinets

³ Throughout this dissertation, numbers may represent either fixed pitches (i.e. 0 refers to C-natural, 1 to C-sharp, etc.) or intervals (i.e. 7 refers to a perfect fifth, E to a major seventh, etc.) depending on the context of the musical example.

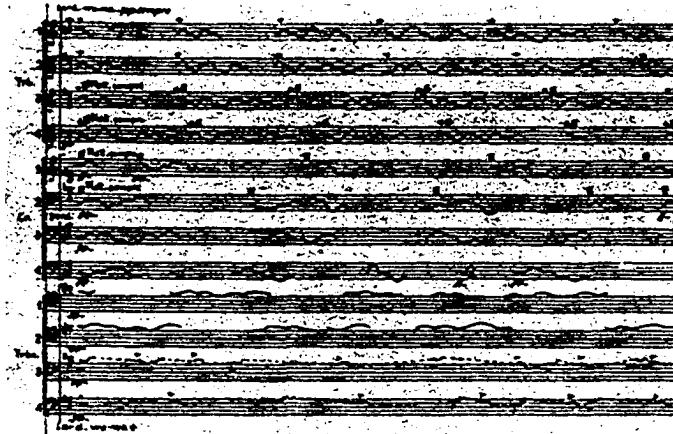


Figure 2. 9 Panel I,7 Trumpets, horns, and trombones

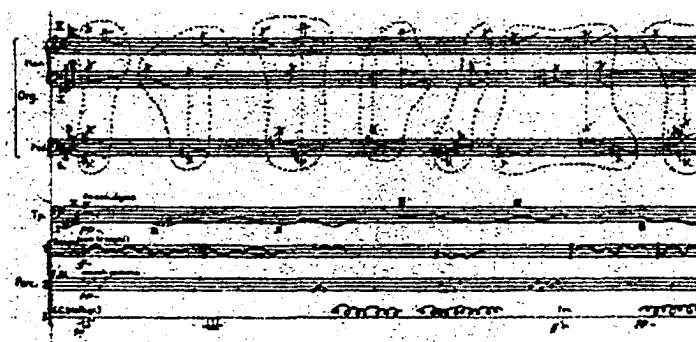


Figure 2. 10 Panel I,7 Organ, timpani, percussion

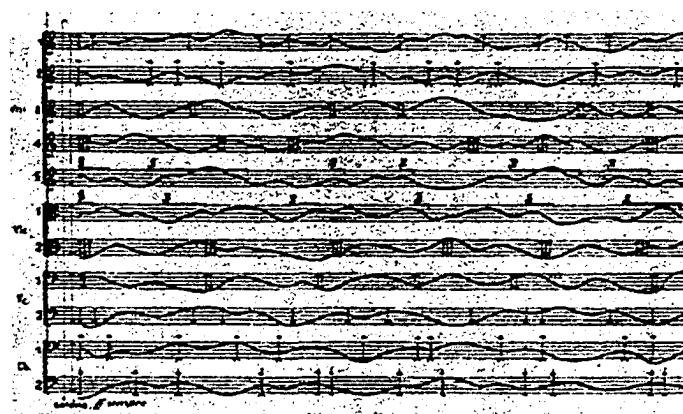


Figure 2. 11 Panel I,7 Strings

The effect is one of large-scale glissandi meandering up and down within a static pitch, dynamic, and density field. There are no specific pitches in this movement, only graphic notation of relative pitch level. Strings, timpani, organ, and brass have both pitch ranges and graphic notation, while the winds and strings have only graphic notation. Each instrument has either 17, 18, 34, or 35 figures, separated by space that should become increasingly longer pauses (the duration is left to the player's choice). Dynamics alternate regularly between *pp* and *ff*.

The director's spiral arm gestures should indicate the frequency of pauses between groups of notes, but the figures themselves must be played as fast as possible, "nervously, muttering-like." Still, the director's gesture only invites the player to begin; the moment of attack is left to each individual player. The director does stop conducting after 67", and as each of the three groups finishes, the players must aspirate the letter "A."

Harmonically, the outer pitches of each instrumental range do suggest a clear harmony, but as every player may or may not choose those pitches, these implied diminished seventh chords would most likely go unheard and unplayed.

VERSION I, PANEL 9 - ASCENT/DESCENT PANELS

This movement and its corresponding version (II,6) are perhaps more direct in their large-scale gesture than any other movement: a gradual descent in every instrument the highest pitch possible, ending together (a rare event in *Per Orchestra*) on the 6-note chord:

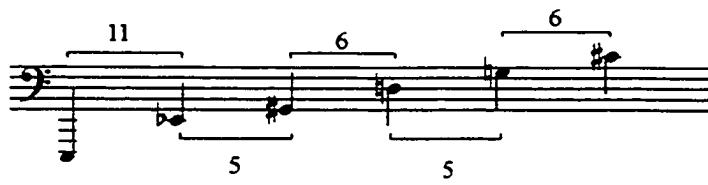


Figure 2. 12 Panel I,9 Final 6-note chord

This six-note chord is extracted from the basic 11-pitch, 20-note sequence of Version I, Panel 6.



Figure 2. 13 Panel I,9 11-pitch chord from Panel 6, with the extracted 6-note chord in Panel 9

The chord is orchestrated rather thickly with no octave doublings. It is divided among the, winds, brass, percussion (organ and timpani), and strings so that each instrumental group plays as many of the six pitches as the instrument's range allows.

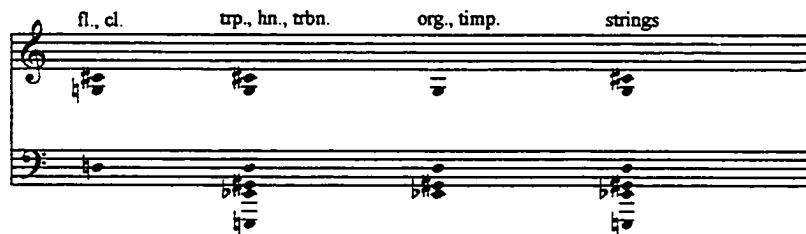


Figure 2. 14 Panel I,9 Orchestration of final chord

Trombones, organ, percussion, and strings have gradually decelerating staccato attacks. Winds, trumpets, and horns have the choice of three attacks:

1. 4" quickly meandering, uninterrupted emissions
2. 1"-2" meandering emissions with flutter tongue
3. Staccato notes with continuous movement

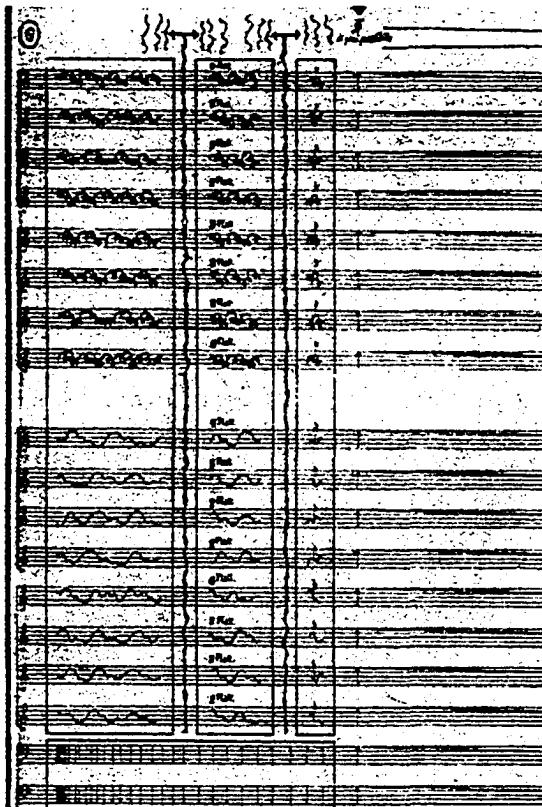


Figure 2. 15 Panel I,9 Detail showing woodwinds, trumpets, horns, and trombones

VERSION I, PANEL 11 – GESTURAL PANEL

This panel continues the "counting" triptych of panels 10, 11, 12, beginning when the director reaches the number 40, and concluding at 78 (lasting 39 durations, similarly to Panel 10). Panel 11 has finally reached "*il morto dell'intervallo*"; it is the first movement to discard any attempt at pitch organization. Flute parts consist of *ff* key-clicks, clarinets have *pp* continuous movement (as seen in Panel 9 and elsewhere), trumpets play concise *ribattuti* with pistons partially unscrewed, horns flutter-tongue with only the mouthpiece, trombones hit their mouthpieces with the palm of the hand, the organist uses a large *glissatore* in one hand to sweep across the keys while the

other makes cluster attacks, and the strings play a *smanicamento continuo* with one finger, while another finger has intermittent percussive attacks over the entire extension. Even the timpani player is reduced to unpitched playing, striking the tam-tam instead.

Rhythmic organization takes the place of pitch organization. The number of gestures per part reflects coherence, at least within instrument groups. Trombones show the clearest symmetry, with a central gestural axis.

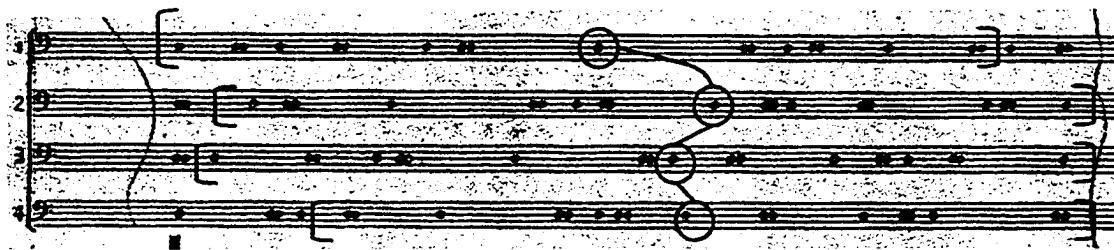


Figure 2. 16 Panel I,11 Symmetry in the trombone parts

In the figure above, the circled note heads show the axes and brackets encompass the extent of symmetry. The pitches excluded from symmetry always refer to the first one, two, or three gestures in the sequence (moving outward from the axis).

Flutes	GESTURES	Trombones	GESTURES
1	27 (73 attacks)	1-4	14
2	26 (61 attacks)	Violins	
3	25 (53 attacks)	1	25
4	24 (52 attacks)	2	23
Clarinets		3	22
1	10	4	24
2	9	5	23
3	9	Violas	
4	10	1	24
Trumpets		1	25
1	21	Cellos	
2	17	1	25
3	17	2	21
4	17	Basses	
Horns		1	20
1-4	7	2	22

Figure 2. 17 Panel I,11 Number of gestures per part

VERSION II, PANEL 2 – HARMONY PANEL

As the dark, wavy line that outlines the single bar suggests, this is a quotation from Version II, Panel 1. It is in fact, the central, axial gesture from that panel. The only discrepancy is the addition of dynamics (Panel 1 allows for variable dynamics); *ff, il più possibile.*

The director has no role in Panel 1, only giving a gesture to end. After holding the final pitch of that movement, players wait seven seconds, and then play the single gesture in Panel 2. The director waits for players to end, counts six seconds, then invites the orchestra to play ("for several seconds" according to the instructions in Panel 3) their opening pitches of Panel 3. Specifically, he asks for *intonazione*, and defines this term in several more enigmatic ways: "try, attempt an emission of sound, repetitiously or not, in a preludiante-style."

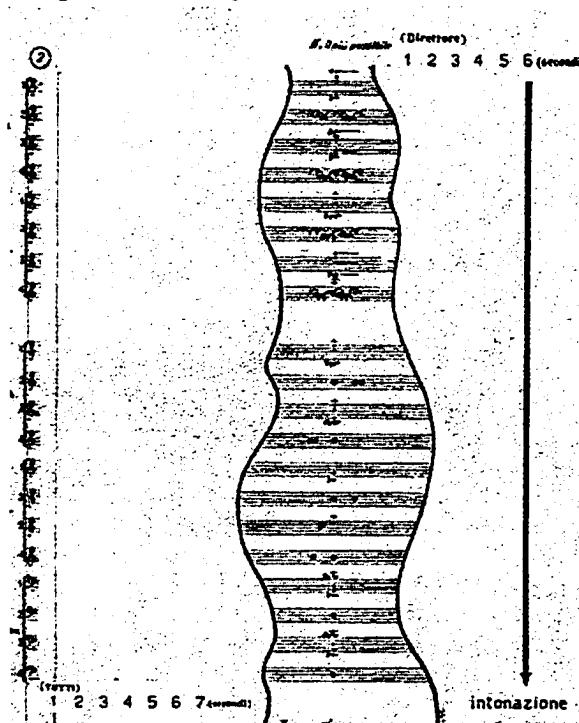


Figure 2. 18 Panel II,2 Detail

VERSION II, PANEL 3 – GESTURAL PANEL

The director's movements (slowly moving the arms outward, finally reaching 180°, with momentary interruptions, or returns to a closed position) illustrate and guide the music's course. Most of the time in *Per Orchestra* the director's role is rather ineffectual, like a puppet controlled by the orchestra. Panel 3, however, is a rare moment when the roles of the director and orchestra are relegated by traditional concepts of musical power and domination.

The orchestra is divided into three major groups (woodwinds, brass, and strings), and within each group, instruments divide into two pitch ranges that move in diverging, contrasting motion.



Figure 2. 19 Panel II,3 Initial pitches

Above are the initial pitches of each instrument's part. The organ part acts as a summary of the pitch motion occurring in the orchestra. The heavy lines intend brief glissandi (using the *glissatori*) that slowly diverge, sometimes returning to pitches already played – exactly what the rest of the orchestra and director are doing.



Figure 2. 20 Panel II,3 Organ

At the right of this panel is a rectangle that encloses every instrument. It is marked "Coda," and players must jump to it any time the director fully brings his arms together. When the director begins a new divergent gesture, the size of the arms' angle suggests which pitch musicians must jump back to. Performance will consist of three to six divergent motions, with only one full extension of 180°. At that point, the players must reach the last note (in the first section, not the coda). The performance ends when the director lets his arms fall. This is not necessarily at the end of the first section or the coda.

For all instruments save woodwinds, the coda is a little reprise of actions occurring during the first section. For the strings, this means beginning with the initial pitch of the first section, and trilling while making a glissando in the contrary motion to the first section. The brass have two stacked pitches that outline the range of the motion in the first section. The woodwinds have graphic symbols without pitch indication, and are free to play any pitch, constantly fluctuating (a gesture seen in virtually every panel in *Per Orchestra*).

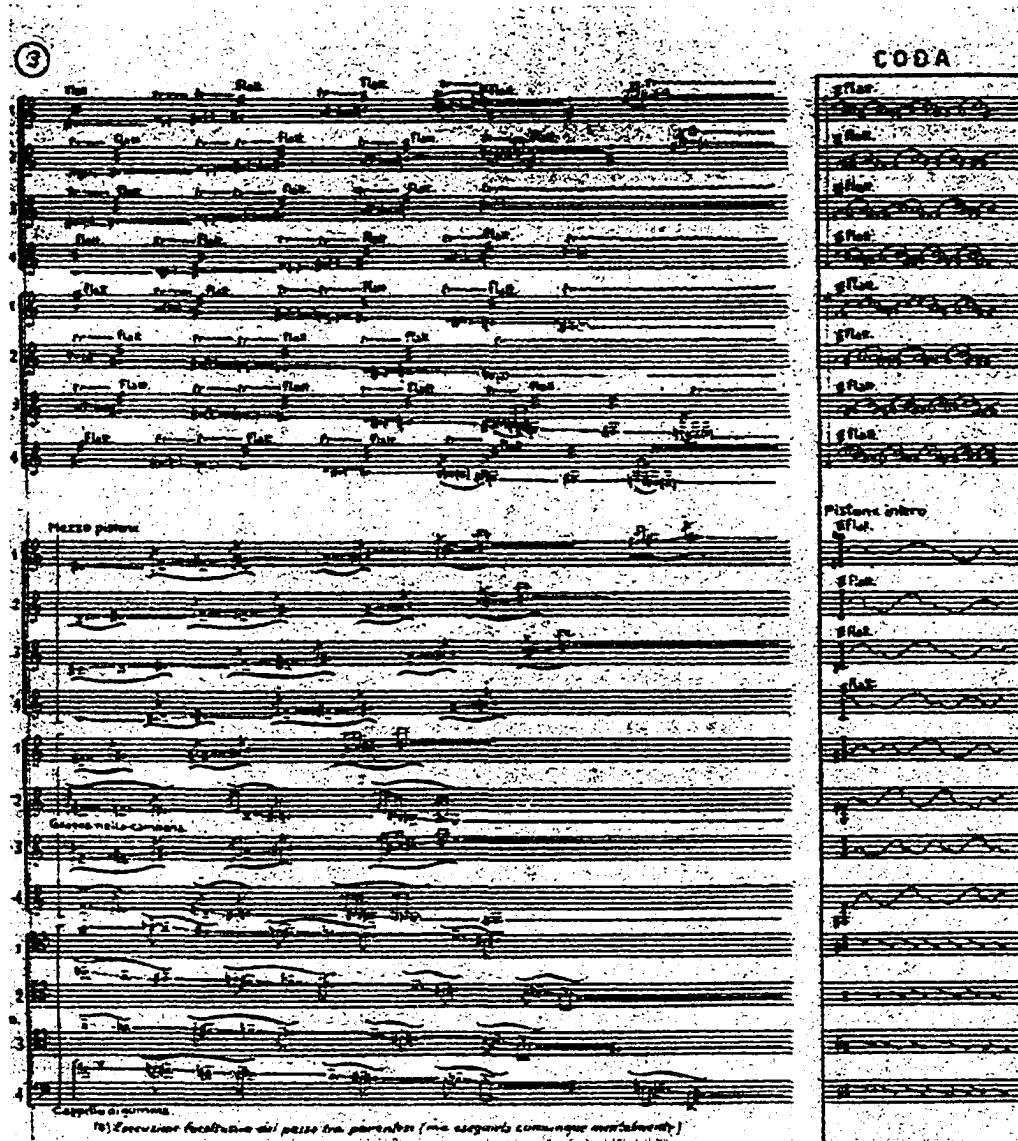


Figure 2. 21 Panel II,3 Detail

VERSION II, PANEL 6 – GESTURAL PANEL

The text for this panel gives virtually the same instructions as Version I, Panel 9, but as the gesture is inverted (a movement from lowest to highest pitch), so are the performance directions (any instruction in Version I that directed beginning from the highest possible now begins with the lowest possible pitch).

The director begins with hands clasped together, and slowly brings them apart over the course of the movement until reaching the figure of a cross, finishing by bringing the arms together as if tugging something. Enigmatically, the players are directed, "the performance ends in correspondence to the cross-position, *but may end before*: in any case, it ends with the last note on the page, *in correspondence or not* with the tugging gesture of the conductor."

Unlike Version I, not all players begin on an indeterminate pitch. Twenty of the thirty-seven players have arrows indicating the lowest possible pitch, while the remaining musicians play pitches from the final chord from Version I. Similarly to version I, the instruments slowly rise, in a manner prescribed at the left of the page until reaching a final, notated chord. There is also a steady crescendo from *pp* to *ff*, the reverse of Version I. The initial and final chords are orchestrated rather analogously; both have the highest pitch appearing most frequently, and center pitches appearing least.

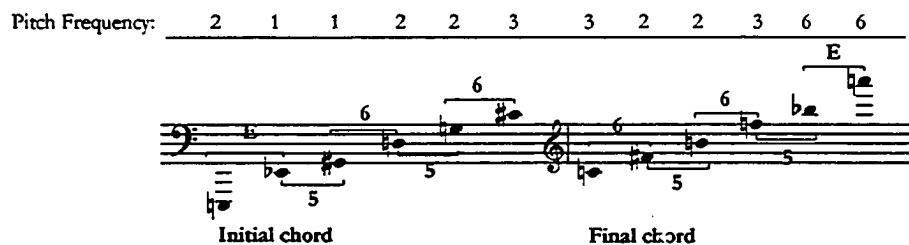


Figure 2. 22 Panel II,6 Initial and Final Chords

COLLECTION B: Panel Construction

The following six panels, four from Version I, and two from Version II, can be categorized as Collection B. The second largest group, it contains those movements that exhibit panel construction (in other words, an unambiguous division of the

movement into several sections, whose division may or may not be heard). *Per Orchestra* as a whole is conceived with panel construction, each page being a separate, distinct entity. Therefore, the movements in Collection B can be thought of as microcosms of the larger whole. Panel I,1 is comprised of five sections, Panels I,3, I,6, II,4 (it is virtually an exact copy of I,3), and II,7 (the largest of all movements in *Per Orchestra*), all have seven sections. Panel I,5 has thirteen sections. In Collection B, symmetry always occurs over the central axis. Creating odd-numbered sections allows for axes with equal numbers of sections on either side. The numbers 7 and 13 are also of special importance to Donatoni, referencing the seven-letter inscription on the frontispiece (see Figure 1) of the score.

VERSION I, PANEL 1 – PANELS WITHIN PANELS

The first movement of *Per Orchestra* immediately introduces techniques that will be used throughout this work, as well as Donatoni's total output. Panel construction is perhaps Donatoni's life-long trademark. In *Per Orchestra*, we see a rather severe use of it, where panels often destroy a sense of continuity and form, as opposed to later works (such as *Etwas ruhiger im Ausdruck*) that used panel construction as a method of unifying. This movement is comprised of five panels. The director's gestures are futile, unnecessary; he is instructed to move the arms "vigorously, alternatingly...and uncontrollably." The players play when they "find, or believe to have found" their cue in the director's arm movements. At that point, they may play any of the five panels as fast as possible. If the director stops, they must repeat the section they were just playing. The pauses between sections are left to the players' discretion. Clearly, this makes for haphazard harmonies and rhythms. The extremely symmetrical construction of pitch and rhythm will never be heard unless players collectively choose to play movements 1 through 5 in order. Although each

panel contains the total twelve-note aggregate, pitches are carefully restricted to a range of a major seventh, between G and G-flat. The organ presents this range, as it will often do in *Per Orchestra*.

The five groups are built symmetrically in the flutes, clarinets, trumpets, horns, and trombones. Group 5 is the retrograde of group 1, and group 4 is the retrograde of group 2. Note that both rhythms and pitches are also retrograded. The organ and percussion, treated as one family, operate similarly although the restricted range, G to G-flat, replaces specific pitches. The central third group is the axis, from which motives are symmetrically inverted in either direction.

Strings

Group 1

Starting with Vln. 1 on E, each string group begins a similar figure [0201], on a successively lower pitch:

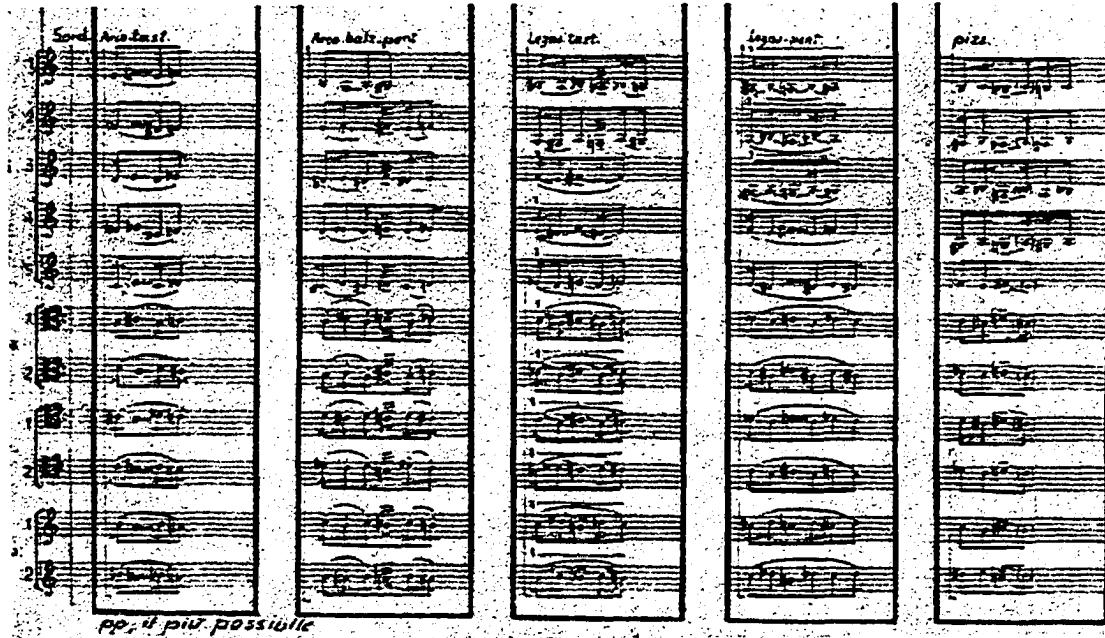


Figure 2. 23 Detail of strings from Version I, Panel 1

Vla. 2 acts as the axis of symmetry with the figure inverted, producing [0T0E]. The chromatic descent continues, ending with B-flat in Bass 2. Nevertheless, the initial pitch is not as important aurally as the second pitch of each group, notated as a briefly held note. Tracing the path of these pitches clearly shows a separate chromatic descent from F-sharp to A-flat.

Group 2

Vln. 1 continues the initial descent, beginning the [0T0E] figure on pitch A. The second, held pitch, G, maintains the second path. Vln. 2 leaps up to the F#, for obvious instrumental reasons. This path can now be easily traced down the string section, and on to group 3. The remaining ornamental pitches surrounding these primary notes are systematic as well. Vln. 1 to Vla. 1 pick up with the same pitch group 2 left off. Five pitches are presented, with a motive [010201]. Vla. 2 begins to shift the process: Instead of starting on C# (the same note it ended on in group 1) it begins on B (this breaks the pattern of beginning Group 2 with the last pitch of Group 1, but maintains the pattern of chromatic descent). Vc. 1 does the opposite and begins a Major 2nd higher than expected, on C, and inverts the motive into [0E090E]. Vc. 2 and Db. 1 and 2 follow suit.

Group 3 – Axis

Both paths begin in Vln. 1. Path X picks up from Pitch B (group 2, Bass 2, 1st pitch), and begins on B-flat. Path Y picks up from pitch A (group 2, Bass 2, 4th pitch), with A-flat. One can easily trace the chromatic descent of both paths, with octave transposition to account for instrumental limitations. Violin 1 and 2 have the same six-note figure begun in Vc. 1, Group 2, [0E090E], but Vln. 3 through Db. 2 have a

new five-note motive, [0E1E0] or its inversion. This new motive is simply derived from the last five pitches of the six-note motive.

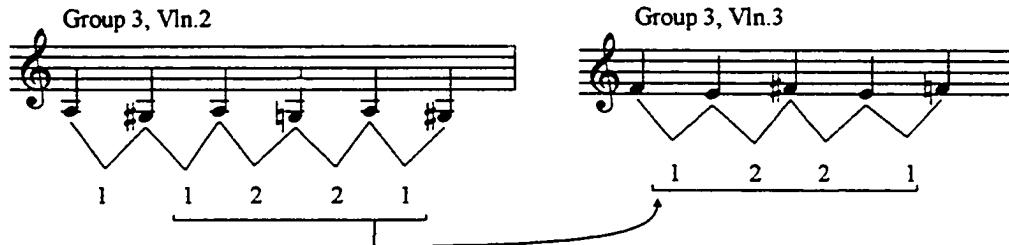


Figure 2. 24 Panel I,1 Motivic derivation in Strings

Group 4

The chromatic descent of both paths continues, from A-sharp and A in Vln. 1 to C and B in Db. 2. Rhythmic and pitch motives are retrogrades of those found in Group 2.

Group 5

Vln.5 through Db. 2 are symmetrical to Group 1, as expected, but Vln. 1-4 disturb the equilibrium. Vln. 1 is instead a retrograde of Group 3, and Vln. 2-4 are mirror images of Group 2.

VERSION I, PANEL 3 – PANELS WITHIN A PANEL

This is the second movement with clear panel construction; now seven sections instead of the five in Version I, Panel 1. Here gestures surpass pitches in importance. Each section is comprised of graphic symbols that relate to a specific method of playing: flutter-tonguing, very fast groups of ornamental notes (*ribattuti telegrafici*), trills, and continuously meandering movements. A box at the left of the score has

pitches or ranges from which the players choose. As in Version I, Panel 2, instrumentalists play when they believe to have found their cue in the director's strange arm gestures. Once again, they are free to play any of the sections. It is worth noting that aside from a duration marking of 76", there are no indications of either speed or dynamic.

Through the dense, all-chromatic texture of this panel, one unique chord emerges, carefully orchestrated, and played by Flutes 1, 2, 3, 4, Horns 1, 3, and Trombones 1, 2, 3, 4. This ten-pitch chord revolves around an axis of pitches B,C [0,E], to which are added two [0257] chords, transposed by half-step. Meanwhile, strings form a backdrop of alternating overlapping or adjacent pitches.



Figure 2. 25 symmetrical 10-pitch chords

A large-scale symmetry is found by analysis of gesture, rather than pitch content. Similarly to Version I, Panel 1, symmetry exists between sections using the center as an axis. However, in Panel 3, the axis of symmetry runs lengthwise as well as vertically. Therefore, the gesture in the top half of section 3 (wind instruments) is found in its retrograde form in the bottom half of section 4 (strings).

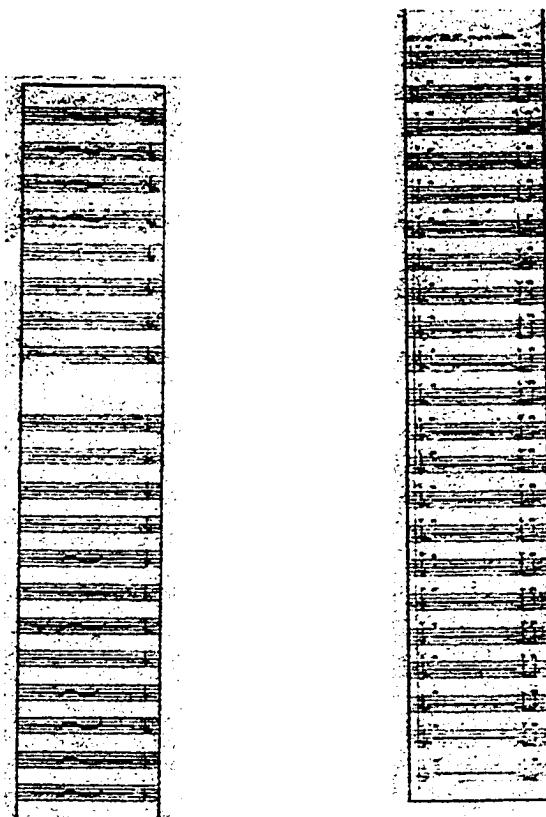


Figure 2. 26 Left side: section 3, winds; right side: section 4, strings

Each performer must interpret the gestures of the conductor, while choosing one of the seven sections, using the boxed, first section at the left of the page to define the parameters of pitch. The freedom to choose from any section creates a massive, static, dense cloud, undistinguished from itself at any point during the duration of the work. The number seven reflects Donatoni's fixation on numerology; it can be found in many guises in *Per Orchestra* such as rhythms, gestures, sections, and timings.

VERSION I, PANEL 5 – PANELS WITHIN A PANEL

The third panel-construction movement, its thirteen sections are an aggregate of the two previous movements ($5 + 7$). This is the “clock” panel, so-called because of

the conductor's gestures: he outlines with the right arm a circumference, alternating clockwise and counterclockwise. A clockwise gesture invites the performance of a figure; the player may choose to repeat it continuously, or pause after playing only a fragment. A counterclockwise arm movement indicates a repetition of the last figure (or pause) played. Each of the thirteen sections may last for the duration of the conductor's "clock" (from 1"-13").

Each wind and brass player has a choice among three pitches, all being part of a [014] trichord. From panel 1 to 13 extends a long-range contrary motion, rising in the flutes, trumpets, and strings, while the other instruments descend. Although the thirteen sections may have greatly varying durations, graphically they are drawn with precise relationships. Using the seventh section as an axis, the sections are graphically symmetrical to one another; section 1 and 13, section 2 and 11, etc. are similar in terms of shape. In terms of pitch, the relationship is a bit more skewed. Each section is made up of six-, seven-, or twelve-note chord, orchestrated in the registers shown below:

Figure 2. 27 The 13 chords of Panel 5

Sections are related by simple transposition, the interval determined by the table above; for example, section 1 and 12 are related by eight half-steps, or minor 6th.

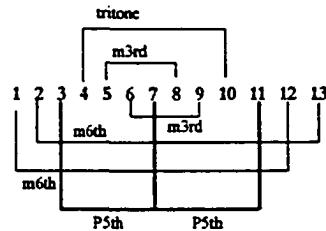


Figure 2. 28 Transpositional relationship between sections

Each instrumental group has a circular, cross-relationship. As the example below shows (the flute parts from section 1), this interconnectedness suggests a symbolic reference to the “GOLEM” on the frontispiece of the score.

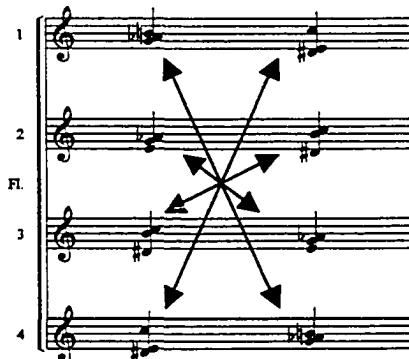


Figure 2. 29 Panel I, 5,Section 1, Circular pitch relationship in Flutes

In order to show how pitches are generated from section to section, I present the process of arriving from section 1 to 2 in Clarinets 1–4.

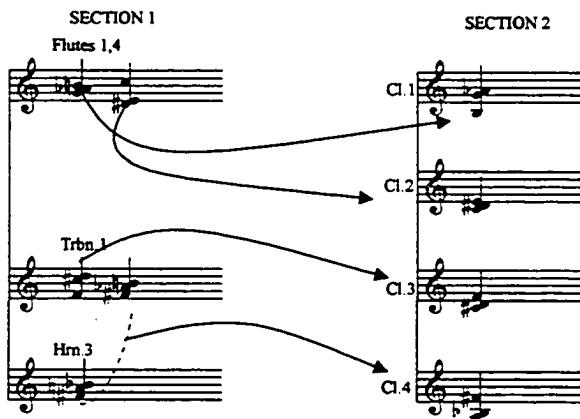


Figure 2. 30 Panel I, 5 Pitch Derivations from Section 1 to 2

This type of transformation is indicative of the processes that occur throughout this panel.

VERSION I, PANEL 6 – PANELS WITHIN A PANEL

In a traditional manner, the director conducts with the right hand between one and six beats. The number he chooses corresponds to the six sections, and so players only begin playing after allowing the director to finish beating "time." Meanwhile, with the left hand, he outlines semicircles that refer to sections A and B, which should be played by any instruments not currently occupied with a numbered section. The numbered sections all give absolutely precise pitches from which to choose. Sections A and B, however, give ranges to some instruments, while others may play anything within their total compass. Because A/B can intrude on any numbered section, the registrally static harmonies will become hazy. If the conductor manages to beat with the right hand while making semicircles with the left (no easy feat), then all players may play A/B while waiting to see which numbered section they must play. If on the

other hand, the director beats the numbered section, and afterwards makes semicircles, this would limit the number of instruments playing A/B to those not playing in a particular section (ex. if the director beats '1,' then timpani, percussion, and strings may play A/B, as they are tacet in '1'). Donatoni's instructions do not make totally clear if silence occurs between sections, or whether A/B must overlap at all times.

The six numbered sections are simply variations on a twenty-note symmetrical row, first presented in section 2. Section 1 acts as a kind of introduction, with the twelve-pitch aggregate divided among the trombones, horns, and trumpets into four fully diminished seventh chords, spanning a major seventh (the ubiquitous interval of Panel 5).



Figure 2. 31 12-note pitch aggregate for Section 1

Sections 2 to 6, shown below, have minor variations in an all-interval chord that is spaced symmetrically throughout the orchestra, with C/D-flat as the pivot interval (an axis encountered previously in Version I, Panel 2).



Figure 2. 32 Pitch arrangement for sections 2 - 6

VERSION II, PANEL 4 – PANELS WITHIN A PANEL

This is the first of the two movements in Version II assembled through panel construction (the other movement being II,7). Musically, it is exactly the same as Version I, Panel 3. Only the performance indications for the conductor differ between the two versions. In version I, the conductor holds his hand out, horizontal, parallel, and rigid. He rotates at the waist with variable velocity, alternating from immobility and semicircular movements toward the orchestra. The arms may be also shift variably from the starting position to 180°. In Version II, the conductor's arms move in semicircular motions with complete independence between the arms. Immobility of the arm follows each movement, then recommencing the motion from any point in the semicircle. Finally, Donatoni adds that, “the director must take care in making the shift to the successive position by lowering the arms, to make it invisible to the orchestra, and thereby non-active.”

VERSION II, PANEL 7 – PANELS WITHIN A PANEL

This is the largest of the panels, and although there is no indication of duration, it seems likely that it should be the longest movement in *Per Orchestra*. There are five full pages of introductory text and one, large foldout page of music. The initial performance instructions for the director recall those of Version I, Panel 12. Both movements have the director quickly calling out sequences of numbers. However in this panel, the players choose beforehand a path between the seven sections with alternating pauses. The director then quickly calls out sequences of numbers, and instruments play only when they hear their number (see the performance notes for an example). Since the paths chosen by players are unknown to the director, he may end before they are done. Nevertheless, the performance ends when the players, not the director, have finished.

There is a long-range divergence outward in both directions from middle C-sharp in section A to the lowest E and highest B-flat possible in the orchestra. The seven sections successively build upon each other as they expand registrally, harmonically, and dynamically (from *pp* to *ff*).

Section A

The full orchestra intones C-sharp, the axis of harmonic expansion in Panel 7, as well as all of *Per Orchestra*.

Section B

The organ seems to act as a pitch generator and range controller for this movement.

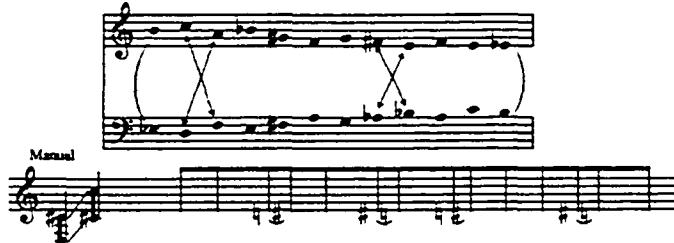


Figure 2. 33 Panel II,7, Section A Organ

In each section, orchestral families are relegated to either playing graphic symbols (without noteheads) that are preceded by pitch ranges, or playing specified notes with improvised rhythms. In section B, woodwinds, horns, and strings play graphic symbols with pitch ranges that span the range fixed by the organ.

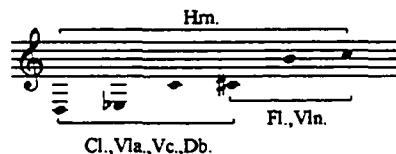


Figure 2. 34 Panel II,7, Section A Pitch Ranges of Orchestral Families

The two remaining families, trumpets and trombones, each have four groups of four pitches enclosed in circles, which they play freely in a clockwise direction, passing from one circle to another by means of arrows connecting one pitch to another. The first two circles of Trumpet 1 contain the organism for all trumpets and trombones. The third and fourth circles are simply transposed (by IC 1) inversions of the first and second circles.

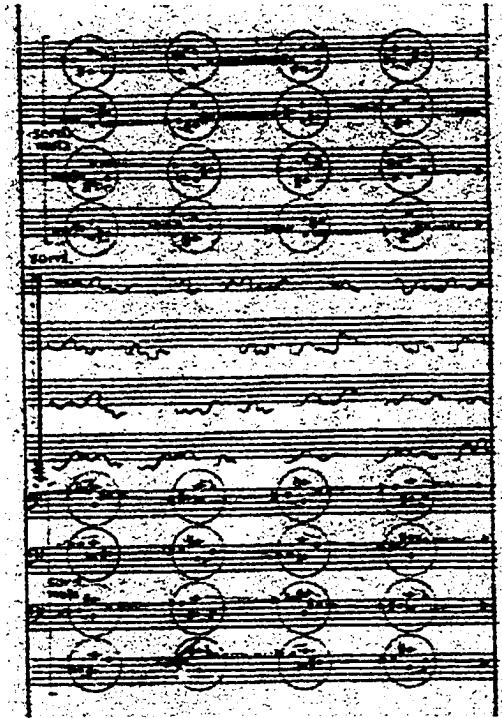


Figure 2. 35 Panel II, 7, Section B Trumpets, Horns, and Trombones (four staves each)

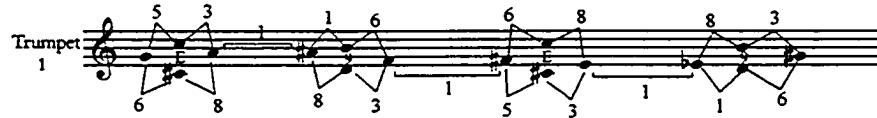


Figure 2. 36 Panel II,7, Section B Intervallic Relationships in Trumpet 1

The four circled figures of Trumpet 1 all have slight variations, and so can be labeled a, b, c, d. The graph below shows how these four figures make up all trumpet and trombone parts.

A	b	c	d
B'	c'	d'	a'
C	d	a	b
D'	a'	b'	c'

Trumpets I - IV

C	B'	A'	D'
B	A	D	C
A'	D'	C'	B'
D	C	B	A

Trombones I-IV

Figure 2. 37 Panel II,7, Section B Combinatorial Motives in Trumpets and Trombones

The trombones are a mirror inversion of the trumpets. The first circle in Trombone 1 relates to the fourth circle of Trumpet IV, inverted over the C-sharp axis.

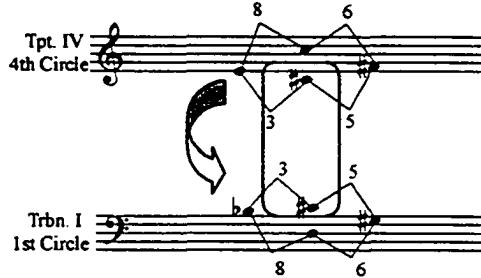


Figure 2. 38 Panel II,7, Section B Mirror Inversion Between Tpt. 4 and Trb.1

Section C

The strings are now divided into those who only have ranges (like section B) and those who play graphic symbols limited by several pitches (the pitch field, C, C-sharp, F-sharp, G, G-sharp) that have expanded outward from Section B. F-sharp is the addition, as all the others played important roles in the previous section. Horns and trombones have simple, symmetrical gestures that stress four of these five pitches (G, G-sharp, C, C-sharp).

Once again, the organ provides pitches for other orchestral families, namely woodwinds and brass. The six staves shown below are three separate parts, and the organist can jump from one to another at any point. Each boxed staff contains a sequence of thirteen symmetrical pitches. The three staves are related by IC1 transposition.

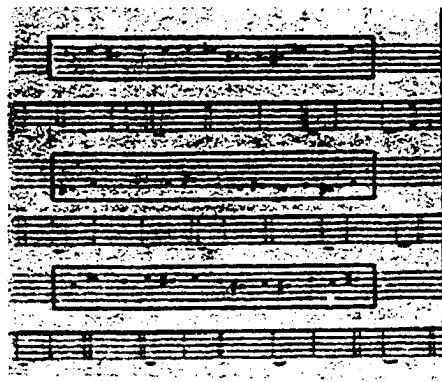


Figure 2. 39 Panel II,7, Section C Organ (the top two boxed staves have treble clefs and the bottom staff, bass clef)

Woodwinds now have gestures similar to trumpets and trombones in Section B; notes enclosed by circles to be played rhythmically free. The first half of Fl. 1's part generates a mechanism for all woodwinds, much like Tpt. 1 in Section B.

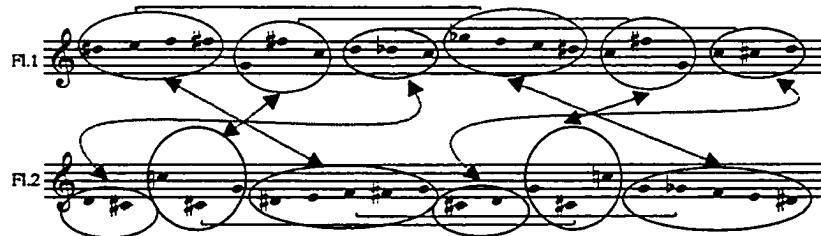


Figure 2. 40 Panel II,7, Section C, Flutes 1 and 2 (circles and arrows are author's)

Each woodwind part is constructed from a 10-note motive that is presented in the first half, with its retrograde in the second. As shown above, the first half of Fl. 2 is a “rough” retrograde of the second half of Fl. 1. Only the second through fourth pitches (which, importantly, are enclosed in the circle) are transposed, still keeping equivalent intervallic shape. Fl. 3 is a simple retrograde of Fl. 1, and Fl. 4 is a simple retrograde of Fl. 2. The clarinets are related to the flute parts by ic1 transposition; Cl. 1 and Fl. 3, Cl. 2 and Fl. 4, Cl. 3 to Fl. 1, and Cl. 4 to Fl. 2.

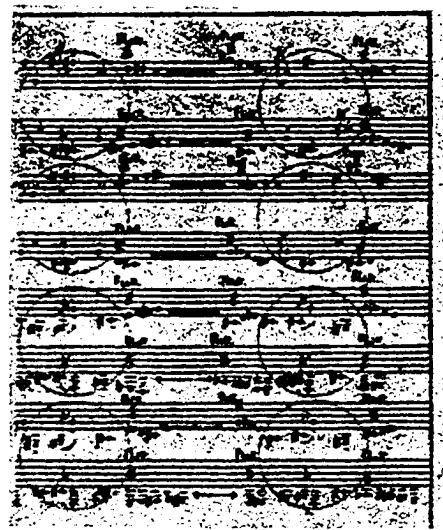


Figure 2. 41 Panel II, 7, Section C Flutes (staves 1-4) and Clarinets (staves 5-8)

The four trumpet parts are related by a “flawed” mirror image; 1st and 3rd, and 2nd and 4th trumpets are retrogrades, with the first and last pitch of each motive not matching.

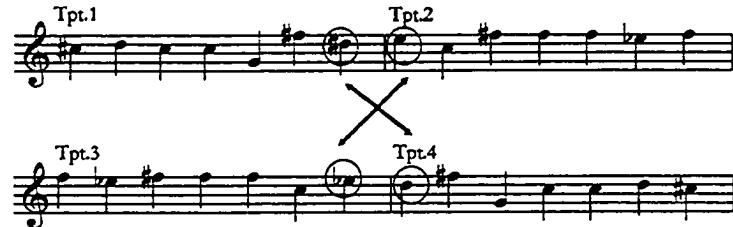


Figure 2. 42 Panel II, 7, Section C Trumpets

Section D

Except for woodwinds and trumpets, every instrument has graphic symbols that are to be played within an indicated range.

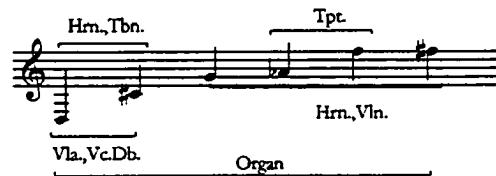


Figure 2. 43 Panel II, 7, Section D Pitch ranges of orchestral families

Woodwinds, starting with Flute 1, have sequences with different numbers of pitches: Flutes 1 and 2 - 40, Flutes 3 and 4 - 17, Clarinets 1 and 2 - 21, Clarinets 3 and 4 - 13. Each of these pairs is an inversion, where the last or second-to-last pitch of one part becomes the first pitch of the successive part.

The musical score consists of four staves, each representing a different woodwind instrument. The instruments are Flute 1 (Fl.1), Flute 3 (Fl.3), Clarinet 1 (Cl.1), and Clarinet 3 (Cl.3). The score is organized into measures separated by vertical bar lines. Above each measure, a horizontal bracket indicates the total number of notes in that measure. Below each measure, another horizontal bracket indicates the note values (e.g., 1 1 2 1). A question mark is placed above the first measure of Fl.1, indicating a specific note or pattern. The instruments play different sequences of notes, often in inversions, as described in the text.

Figure 2. 44 Panel II, 7, Section D Interval patterns in woodwinds (excluding inverse pairs)

The question mark in Fl. 1 (see figure above) refers to the E-natural, which disrupts the intervallic pattern. The corresponding place in Fl. 2 does not make the same “error”. The organ part in Section C is the most likely candidate as generator of these sequences, with its prevalence of alternating ic1 and 2.

Section E

The entire orchestra's range now expands in both directions: down to A and E-flat, and up to B and F-natural. These are the expected pitches, seen at exactly these

registers in virtually every movement of *Per Orchestra*. Woodwinds again have pitch material derived from the organ in Section C. Each part is symmetrical within itself and in relation to another part.

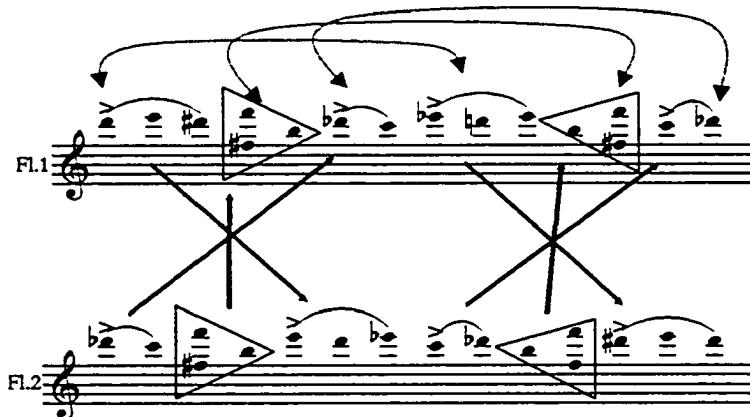


Figure 2. 45 Panel II, 7, Section E Symmetry Between Fl.1 and Fl.2

The relationship between woodwinds is much like the trumpets in Section B. If one labels the first half of Fl.1, 'a', the second half, 'b', the first half of Fl. 2 'c', and second half, 'd', then the following relationship between all flutes results:

Flutes	1st Half		2nd Half	
	1st	a	2nd	b
1st	c		d	
2nd	d		c	
3rd	b		a	
4th	a		b	

Figure 2. 46 Panel II,7, Section E Combinatorial Motives in Flutes 1-4

The clarinets follow the same procedure, with every figure retrograded (i.e. the first half of Cl. 1 is a', and the second is b'; the first half of Cl. 2 is c' and the second half d'). The trumpet parts, like the organ, are divided into three groups, A, B, C. Each part includes a seven-pitch sequence (see figure below). Tpts. 1 and 2, and Tpts. 3 and 4 are retrogrades of one another.

The sequences are derived from the organ sequences of Section C. Horns, using the circle method (like brass in Section B and flutes in Section C) all intone the symmetrical tetrachord E-flat-A-D-G-sharp.



Figure 2. 47 Panel II, Section F Detail: Trumpets 1-4, Group A

This is the first section since A that doesn't include the total 12-pitch aggregate. Donatoni has very consciously left out B-flat, saving it up as the extreme focal point of section G.

Section F

The organ part is separated into five subdivisions labeled **A, B, C, D, E**. Each subdivision has two sets of stacked pitches that indicate range. As is the case in previous sections, these ranges apply for the entire orchestra. Flutes remain in the **C** range (between C-sharp and G), Clarinets predominantly play the boundary pitches of **D** (E-flat, D, F-sharp, F) and **E** (C-sharp, G). Trumpets are a bit problematic; they must play freely, as high as possible, never descending below an indicated pitch (F-sharp). Horns all play graphic symbols within the organ range, **C**. Each of the four trombones has a very narrow indicated range, sometimes as little as IC2, but together they constitute the organ's pedal range of E-flat to D. By the same token, the bells

encompass a similar range. Every string part also falls into one of three organ ranges: E-flat to D, C-sharp to G, or F-sharp to F. B-flat, which was excluded in Section E, makes a small appearance in the horns. Instead, pitches C, G-sharp, and A are excluded from this section.

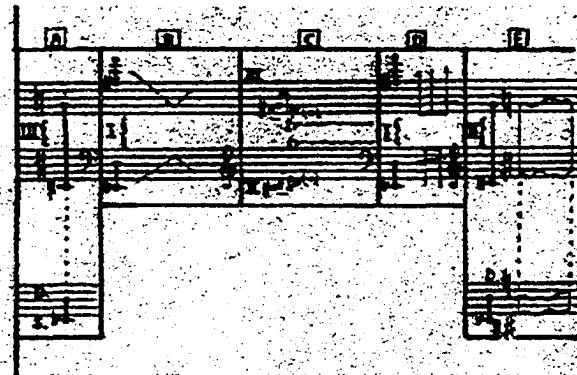


Figure 2. 48 Panel II, 7 Section F organ part

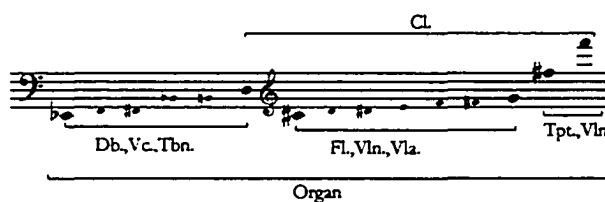


Figure 2. 49 Panel II, 7 Section F pitch/range distribution

Section G

The orchestra reaches its ultimate expansion, up to B-flat in the flutes and violins, and down to the lowest possible E on bass.

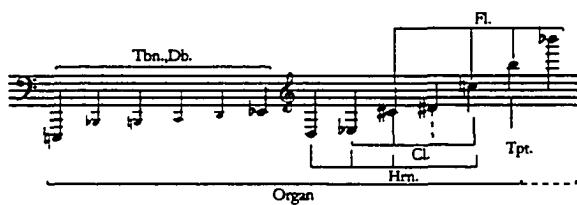


Figure 2. 50 Panel II, 7 Section G pitch/range distribution

Analyzing each movement as though one follows the other gives the false impression that an actual performance will foster any sense of development. The only certainties are that each player must start at section A, and must follow a clockwise path. Still, the path may start at any letter, not necessarily B. There is hardly any chance that all players will have chosen to end on G, which seems, on paper, the logical end. The performance indications are themselves problematic. Donatoni writes that each section must be played *a ritornello continuo*, and must rigorously follow the director's signals. However, the director does *not* signal the sections; his role is only to indicate numbers that are interpreted *individually* as moments of playing or pausing. In fact, every musician, including the director, is completely ignorant of what may happen. The director, more than any other musician, is absolutely powerless and ineffectual. It is truly a devastation of the traditional orchestra. Certainly the avant-garde of the 1960s had also been composing works of utter chaos, but in all those cases, the balance of power between orchestra and director was traditional. This panel is a culmination of Donatoni's "negativity".

COLLECTION C: Panels with Running Sequences

The following three panels, two from Version I, and one from Version II, can be grouped under Collection C. The main characteristic of these panels is a sequence of pitches, derived through simple processes, and played as quickly as possible. We encounter this first in Version I, Panel 8, with a 64-pitch, sequence in the winds. This panel, with its reference to a Bach chorale, has a counterpart in Version II, Panel 5. Here the Bach chorale is deconstructed further, while a 39-pitch running sequence now appears in the brass section. Version I,8 has symmetrical, mirror-image intervals that don't result in symmetrical, identical pitches, while Version II,5 manages to accomplish both: intervals and pitches are symmetrical along an axis. Version I,10

acts similarly to Version II,5: both are 39-pitch sequences constructed solely from IC 1 or 2. Version I,10 differs in the mechanism for producing each instrumental part's sequence. Where Version II,5 produces parts through inversion, retrograde, and transposition, Version I,10 has every part subsequent to Flute 1 beginning the sequence one pitch later, thus rotating through the prime form of the “row.”

VERSION I, PANEL 8

This panel uses the first half of the Bach chorale, *Wer Gott vertraut* as its pitch source materials (see Appendix), found in the trumpets and horns who divide the chorale into the four sections (Donatoni refers to them as *versetti*) indicated by Bach.⁴ While Bach used fermatas and rests to break up the melody, Donatoni encloses each *versetto* in a box, and instructs players to begin and conclude each one with the director’s cue. Each player chooses an independent metronome marking, and may play the *versetti* in any order. As shown below, the first, third, and fourth *versetti* are simply major second transpositions of the original melody, while the second is a minor second transposition. Thus, through interchangeability of *versetti*, freedom of tempo, and fluctuating transpositions, Bach’s tonal implications are lost in performance.

The musical score displays Bach's original melody in the top staff and four transposed versions by Donatoni in the bottom staff. The score is organized into four measures, each labeled with a letter: T2, T1, T2, T2. A vertical line labeled "Transposition Level" separates the two staves. The music is written in common time with a treble clef, and the notes are represented by dots on a five-line staff.

Figure 2. 51 Panel I,8 Relationship between Bach’s and Donatoni’s four versetti

⁴ To Earle Two (1972) and Voci (1973), two major orchestral works by Donatoni, also use a Bach motive. Donatoni employs a transposed version of Bach’s name in German notation (B-flat, A, C, B) as source material for both works.

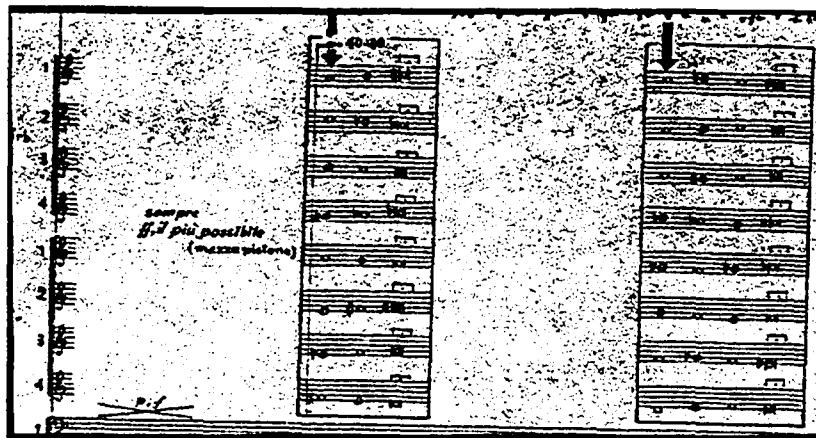


Figure 2. 52 Panel I,8 Detail: the first two versetti

Flutes and clarinets have a 64-pitch sequence that must be repeated until cut off by the director. Flutes 2, 3, and 4 are transposed versions (a half-step lower) of Fl. 1. Clarinets, beginning where Fl. 4 left off, continue the half-step downward transposition, but present the sequence in simple inversion. A filled chromatic range of a perfect fifth (F to B-flat) lies between Fl. 1 and Cl. 4.

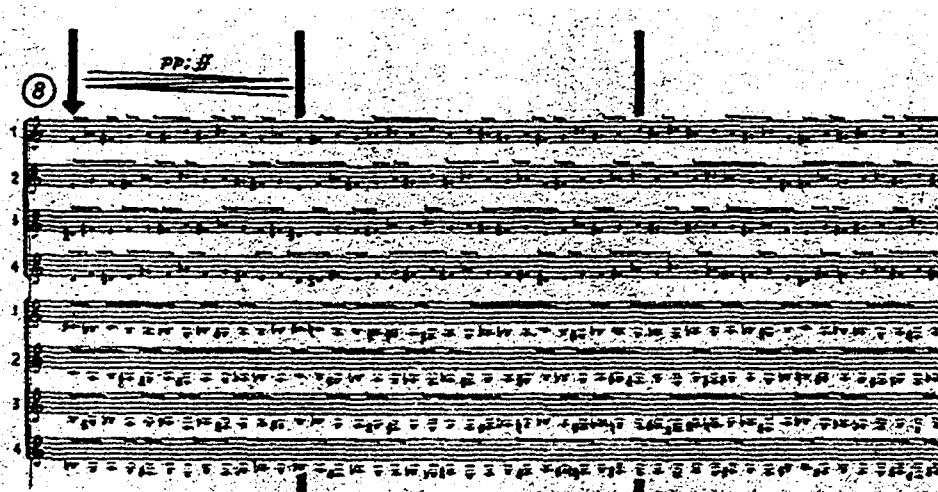


Figure 2. 53 Panel I,8 detail of flute and clarinet parts

The sequence, made up of only IC 1, 2, and 3, is symmetrical, with a mirror image beginning at the 33rd pitch (C-sharp). It can itself be broken down into two small

sequences of alternating six and seven intervals:

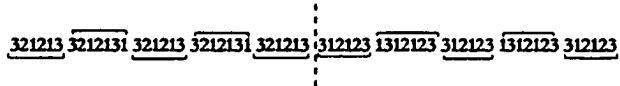


Figure 2. 54 Panel I,8 Symmetrical interval sequence in flutes and clarinets

The four trombones have continual glissandi, each within a range of a minor third that intersects with the next trombone. The total possible range for the group is a tritone (E to B-flat).

The organ has 28 attacks in the right hand, 28 attacks in the left hand, and 7 attacks in the pedal.

The strings have two sorts of attacks: short, tenuto bowings, and very fast alternating bowing. No pitches are given; only headless stems with a continuous drawn line indicating the possible relative pitch movement. Every string part (violins are divided in five, violas in two, cellos in two, basses in two) has seven fast alternating attacks (with the exception of violin 2 and 4, which have five). The number of tenuto attacks differs from part to part with the exception of violin 5, viola 1, and bass 2, which all have 18 attacks. Beginning with violin 1 and descending, instruments seem to be paired. Visually, a part's drawn line showing relative pitch across the movement has either an exact or an inverse relation to the instrument directly below it.

See version II, movement 5 for the corresponding section.

VERSION I, PANEL 10

The few remaining sections in both versions of *Per Orchestra* begin a numbered count, which corresponds to a metronome mark chosen by the director. Panel 10 begins a count immediately after the massive ("violentissima") jangling of all available bells.

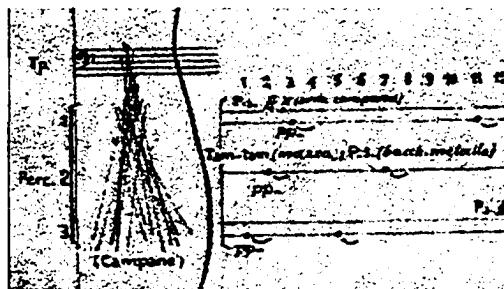


Figure 2. 55 Panel I,10 Detail of bells

All players, save percussion and organ, must utter a series of 39 notes with spoken, not sung, solfeggio, in the mother-language of each individual player, at an individual metronome marking between 60 and 120. The 32 players assigned the sequence each begin on a successive pitch, beginning the sequence over when reaching its end. If Donatoni had chosen to use a 31-note sequence, than every implied vertical sonority would consist of the entire row. Instead, the 2nd double bass ends eight notes short of the full 39-note sequence. The sequence is constructed solely from IC 1 and 2, and chromatically spans a perfect fourth (G-sharp to C-sharp). Once again, the precise symmetrical construction will be lost on account of the indeterminate nature of performance.

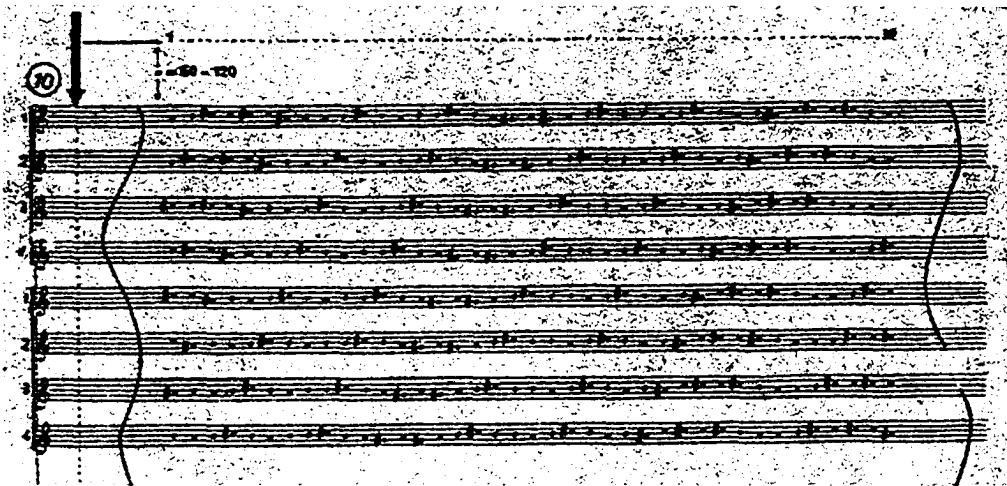


Figure 2. 56 Panel I,10 Flutes and clarinet parts

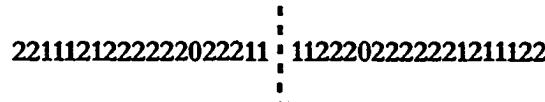


Figure 2. 57 Panel I,10 Intervallic symmetry in the 39-note sequence

VERSION II, PANEL 5

This panel refers to Version I, panel 8, and is also a reworking of the Bach chorale, *Wer Gott vertraut*, this time re-orchestrated for trombones and strings. Deconstruction rather than re-orchestration may be a more appropriate term for the transformation of the Bach chorale. Definite pitches and rhythms are destroyed, and all that remains are four statements, vaguely recalling those in Version I, Panel 8 (See Figure Fig. 57).

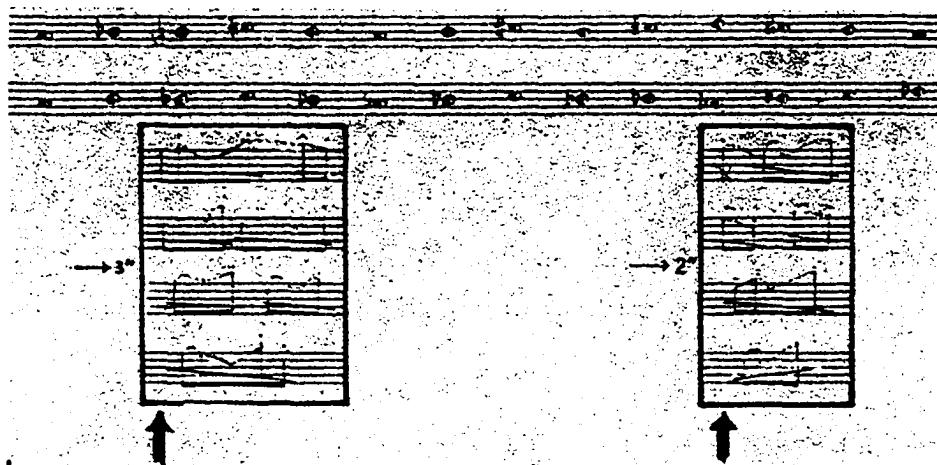


Figure 2. 58 Panel II,5 Detail: Trombones

In Version I, woodwinds have a 64-note symmetrical sequence that undergoes transposition and inversion from one instrument to another. A comparable episode takes place in this panel, played by trumpets and horns. This time, the sequence is 39 notes long (a number we have seen several times, most prominently in Version I, Panel 10) and doesn't operate along exactly the same lines as Version I. Version I has symmetrical, mirror-image intervals, but this doesn't result in symmetrical, identical pitches. Version II manages to accomplish both: intervals and pitches are identical.

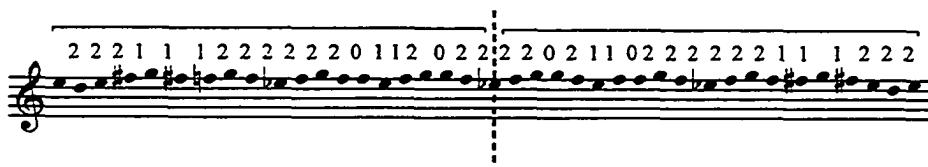


Figure 2. 59 Panel II,5 Symmetry in 1st Trumpet Sequence

COLLECTION D: Counting Games

The following panels, one from Version I and one (or nine, depending on whether one considers labeling panels 8a-8i as separate movements) from Version II, can be grouped as Collection D. Both appear as the movements of their respective versions, and both are chiefly concerned with counting games. In the case of Version

I,12,⁵ there is no originally composed music. Rather, the performers attempt to re-play the previous panel (I,11), starting and stopping according to a series of ten numbers in their part against the conductor's fast, unpremeditated number signaling.

In II,8a-8i, players trade playing and speaking numbers. The performative act of counting begins to supersede actual playing until the complete dissolution of the work.

VERSION I, PANEL 12

This is the third panel in the triptych of panels 10, 11, 12. The orchestra plays panel 11 again, this time under new conditions. The director indicates, as quickly as possible one number (between 1 and 10) after the other. Players are given specific sequences of ten numbers. When they see their number indicated they begin playing Panel 11, and when they see the next number in the sequence indicated, they stop. The director may give as many as 31 signals and as few as 13. Therefore a player may or may not be able to conclude the sequence.

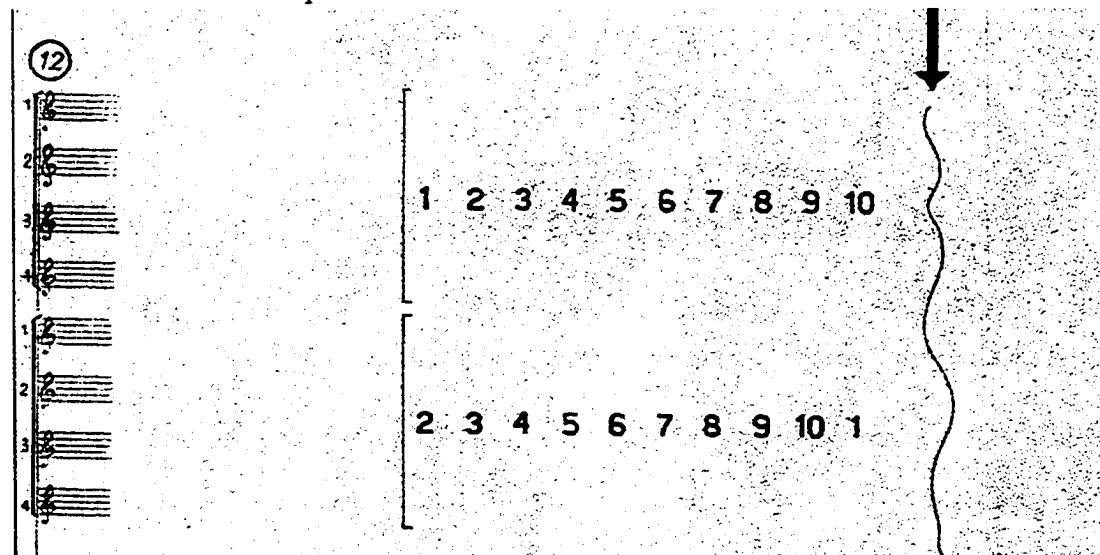


Figure 2. 60 Panel I,12 Detail: Flutes and Clarinets

⁵ Version II, Panel 7 has the same game, though the series extends to seven rather than ten. I have chosen not to include this panel in Collection D because the principal process in II,7 is panel construction (Collection B).

VERSION II, PANEL 8A

Panel 8a is the first of nine panels (8a through 8i) that Donatoni groups as one section. This panel presents pitch ranges for brass, organ, and timpani that will hold constant for the remaining panels of *Per Orchestra*. The remaining players have only graphic symbols that extend through the full range of the instruments. The boundary pitches of each range are arranged by descending major sevenths, beginning with trumpets at the top of the staff and descending to horns. Once the diad, C-C-sharp is reached, an ascent begins with the 4th trombone, rising to the 1st trombone, separated by half step.



Figure 2. 61 Panel II,8a Pitch ranges

The organ part has its own symmetry, pivoting around a C-sharp axis. Keep in mind that the pedal sounds an octave lower, thus including the lowest E-natural possible.

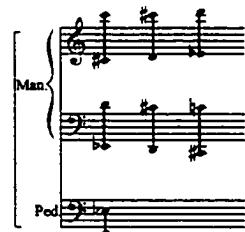


Figure 2. 62 Panel II,8a, Organ ranges

Graphically, the notated part of section 8a begins at the left edge and goes on for approximately an inch and a half. The outer boundaries are wavy, thick black lines that resemble those in Version 2 Panel 2. The rest of the page is blank aside from the

numbers 1 through 7 spaced evenly across the remaining space. The director waits for players to finish playing (each part has an indicated duration between 1" and 7"), and then gives a second invitation to count. The players must count mentally and individually, without a preordained tempo.

VERSION II, PANEL 8B

Graphically, this panel looks as though it could interlock like a puzzle piece with the panel that preceded it. The wavy line suggests the players' attacks, which occur as soon as they have concluded their mental counting. Therefore, the director's role is, as in the previous section, to wait for conclusion of play, and give an invitation to begin a new count (this time, 13 seconds).

The entire orchestra continues playing the same material, gestures, and configurations as in Section 8a. Only durations have changed, although there seems to be no strict organizational principle for choosing spans of time.

VERSION II, PANEL 8C

The director once again has no role in beginning this section; players begin individually as soon as they finish the count from the preceding section. Graphically, the layout appears to follow Section 8b, appearing in the center of the page, with blank space following it. Durations now last between 3" and 20".

VERSION II, PANEL 8D

When all players finish Panel 8c, the director gives a cue for the orchestra to immediately count backwards from 13 as quickly as possible before playing the notated section. Naturally, a retrograde count from 13 suggests Panel 8b, and true to form, comparison of that section shows its resemblance; they are part for part similar, except for durations.

VERSION II, PANEL 8E

When players finish Panel 8d, the director gives the fourth and last invitation to count. From this moment on, the director becomes totally inessential, and may leave the stage. Players choose a number from a given range (see Appendix, pg. 146 for an example), and play the given phrase by counting with variable velocity the number chosen.

VERSION II, PANEL 8f

As the performance rules indicate, Panel 8f begins when a player has exhausted the single breath, bow, or numeration of 8e, without waiting for any cues from the conductor. From this panel on, every new count adds one unit, while the range remains constant.

VERSION II, REMAINING PANELS (8g, 8h, 8i, . . .)

Donatoni includes the ellipsis after 8I to show the possible infinite continuation of *Per Orchestra*. As the count increases by one between each notated “intervention,” the duration of interventions becomes smaller and smaller (no timings are given). He adds that the performance does not end: its necessary interruption is imposed by the audience or unforeseen circumstances.

COLLECTION E

The following two panels, one from Version I, and one from Version II can be grouped as Collection E; panels concerned with chord transformation.

VERSION I, PANEL 4

The movement is constructed from eight chords, presented in the first eight measures. As shown below, the chords are similar in terms of intervallic construction. A theoretical dissection of this panel yields results that may very well be completely different than an aural analysis. Each measure should be played as fast as possible, with the director's descending gestures. However, a player may choose not to play, and must then make up the measure in the successive downbeat. All in all, every measure must be executed, but this means that a player may be five measures behind (in order to play measure 14 as an orchestral *tutti*, a player cannot wait more than five bars), and so there is virtually no possibility for any coherence that the score may illustrate.



Figure 2. 63 Intervallic construction of measures 1-8

In the figure above, each chord is shown exactly as it is orchestrated, in its precise register. The intervallic property of each row reflects its symmetry, using an odd number of intervals per row (five or seven) with the central interval as the axis.

6	5		1	5	6
5	6	2	1	2	6
6	5	5	1	5	5
5	6	5	5	5	6
5	6	4	1	4	6
6	5	6	1	6	5
5	6	5	9	5	6
6	5	6	E	6	5

Figure 2. 64 Interval grid for measures 1-8

By constructing an interval grid, one sees that an axis of symmetry lies horizontally as well as vertically. The interval grid alludes to a "magic square", one that adds up to an equal sum in any direction – a mathematical tool used in for hundreds of years, associated with alchemy, and one can say with almost certainty that Donatoni was very much aware of it.⁶ Ivanka Stoianova shows a similar "magic square," a sketch Donatoni used to construct *Souvenir* (1967).

The fourteenth bar has all instruments save for brass and organ reverting to graphic symbols used in Version I, Panel 3, creating an even greater chaos. Brass and organ are given ranges that create a twelve-note chord.

⁶ Ivanka Stoianova shows a similar "magic square" sketch Donatoni used to construct *Souvenir* (1967) in her article, "*Souvenir*", *Musique en jeu*, 20, September 1975, pp.4-14.

VERSION II, PANEL 1

Thirteen vertical sonorities are constructed from a symmetrical thirteen-note chord that we have encountered in several previous movements:

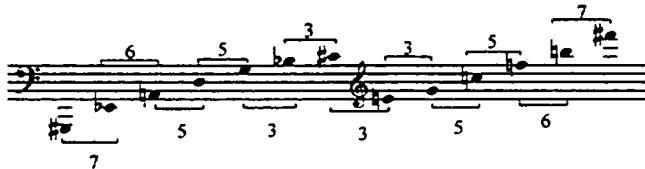


Figure 2. 65 Panel II,1 Basic sonority

Gestures are also arranged symmetrically: the first and last gesture, second and second-to-last, etc. Flutes, clarinets, trumpets, horns, and trombones have thirteen gestures per part. The timpani, 2nd percussion, 3rd violin, 1st viola, and 2nd cello have seven. The remaining strings have nine. The organ has five. This type of gestural symmetry is also seen in *Etwas ruhiger im Ausdruck*. The thirteen pitch collections, however, are not symmetrical. Rather, there are two processes of modification: shifting, and note addition.

Shifting, found in all instruments by horns, operates by cycling through the 13-note basic chord, methodically moving one pitch at a time.

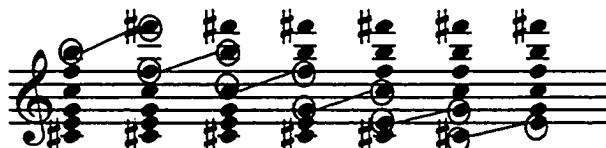


Figure 2. 66 Panel II,1 Flute 1, Chord Shifting



Figure 2. 67 Panel II,1 Horn 2, Note Addition and Subtraction

Vertical sonorities alternate on either odd or even beats, consequently making six or seven chords per instrumental line. The remaining gestures are, to a great extent, non-pitched, and exactly symmetrical by retrograde (see Fig.68). This holds true for all parts except brass, which seem to waver freely between this symmetry and chaos (see Fig. 67).

Nevertheless, performance indications (which call to begin playing completely individually, even before reaching one's seat in the orchestra) obliterate any sense of thirteen sections. Since players can only choose one pitch from each chord, the process of shifting or note addition/subtraction won't be perceived.

The director's role is solely to conclude (ironically, by giving a gesture of attack), upon which instruments end by holding the last pitch played.

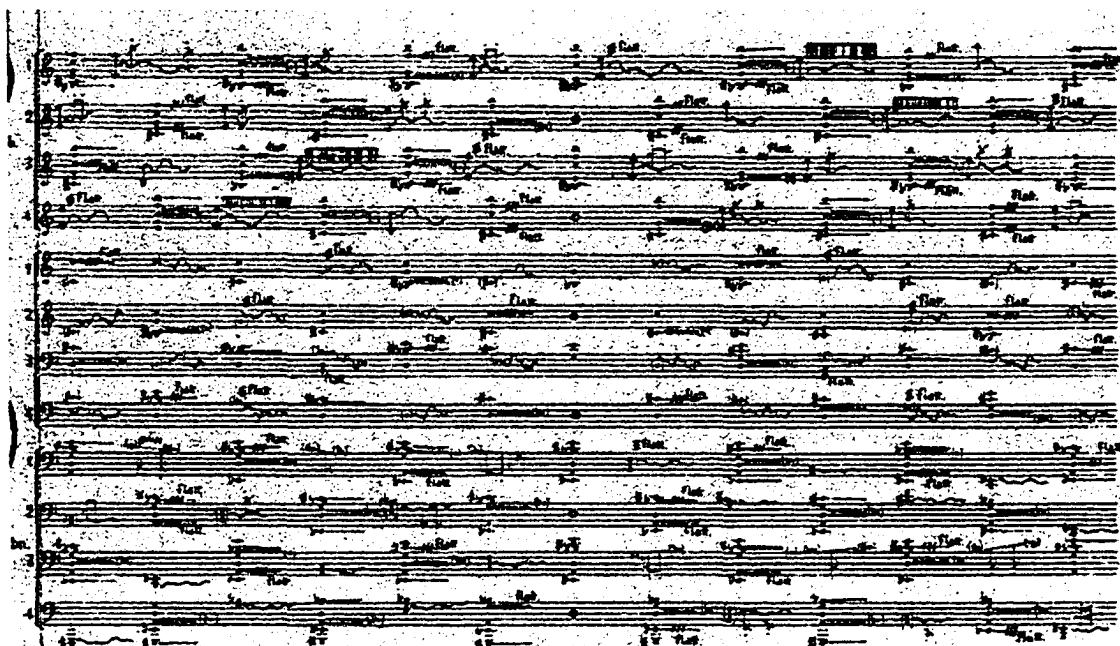


Figure 2. 68 Panel II,1 Brass

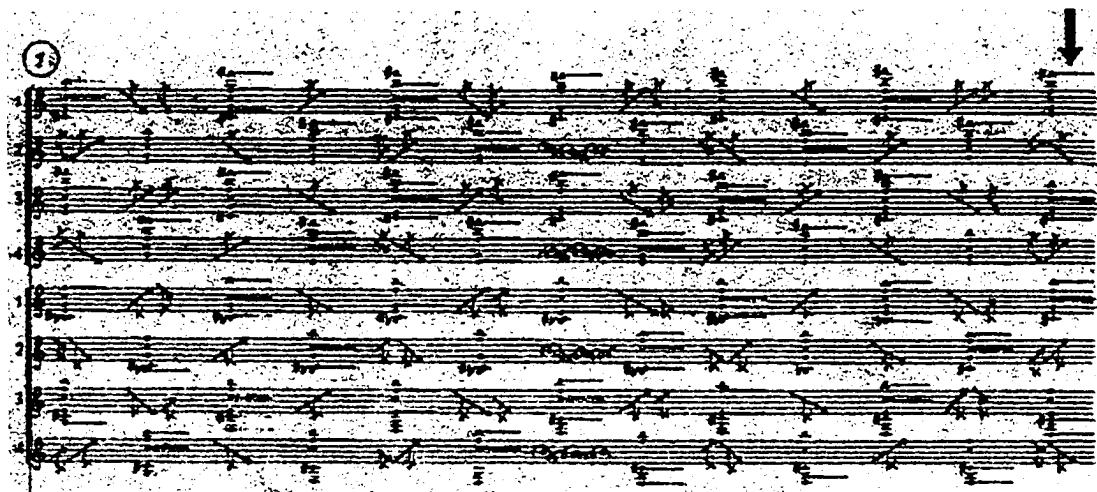


Figure 2. 69 Panel II,1 Flutes and Clarinets

CONCLUSIONS

Donatoni's prefatory notes indicate that performance of both versions of *Per Orchestra* in a concert situation should occur in symmetrical positions on the program. However, he adds that "Performance of only one version is one of the possible arbitrary decisions." Obviously, any interactions between versions would be lost if only one version is performed. Although Donatoni's panel construction, where each page of the score is an entirely new "piece" destroys a sense of continuity and development, I believe that my analysis has shown *Per Orchestra*'s strong formal, coherent architecture. As the outline of panels below shows, there is certainly nothing haphazard about the positioning of panels within individual versions. If Donatoni's agency had been to completely destroy any sense of creative impulse, or "self" in *Per Orchestra*, then his was only a partial success. Those panels that allow performers to arbitrarily improvise or alter the given system certainly realize Donatoni's ideal, but a close examination of this work shows the vast amount of decision-making and creativity needed to complete it.

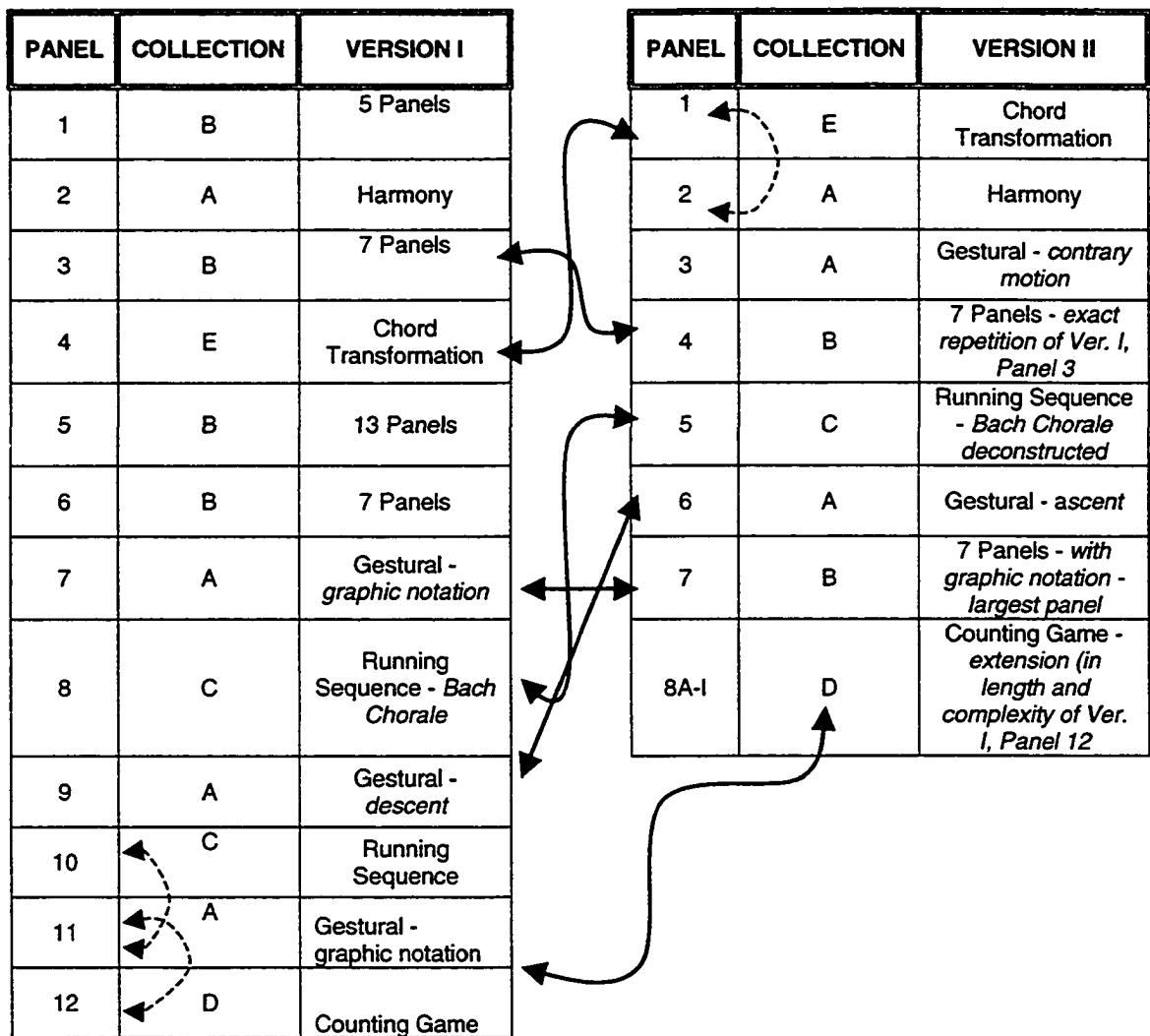


Figure 2. 70 Formal Organization in *Per Orchestra*

CHAPTER THREE

ANALYSIS OF *Etwas ruhiger im Ausdruck*

From the Cageian, chance-driven works of 1962-1965, Donatoni's stylistic evolution turned toward the polar opposite: a rigorously mechanistic style, driven by automatisms and processes. In almost every case, the works of this new period practically composed themselves, organically developing from initial motives or cells. These works, especially *Etwas ruhiger im Ausdruck* (1967), are reactions against indeterminacy. The “rectification of an error”, as Donatoni refers to it in *Questo* (1970), his first published book, refers to his abandonment of chance in the compositional process.

In *Questo*, Donatoni explicitly discusses the compositional methods used in *Etwas ruhiger im Ausdruck*. The twenty or so pages of analysis are, unfortunately, often vague, lacking in precision, and written in an almost avant-garde poetic style. Still, a composer's own analysis always brings insights into the compositional process that cannot be overlooked. Following this section, which essentially translates Donatoni's analysis, I will present a general overview of Michael Barkl's excellent and in-depth dissertation on *Etwas ruhiger im Ausdruck*.

Etwas ruhiger im Ausdruck was written in 1967 under a commission from the Deutsche Bibliotek Rom and dedicated to Michael Marschall. Based on the eighth measure of the second piece of Schoenberg's *Klavierstücke op. 23* (1923), it is orchestrated for clarinet, violin, cello, and piano. The orchestration is the same used by Schoenberg in *Pierrot Lunaire*, and the choice of op. 23 may well be because it contains Schoenberg's first consistent twelve-tone work¹. Just as Donatoni shifted

¹ *Etwas ruhiger im Ausdruck* (“a little quieter in expression”) is the performance indication for the second piece in Schoenberg's Op. 23. Donatoni also adopts the same meter, 4/2, used in the Schoenberg piece.

from “free atonality” to a process-driven style, Schoenberg, too, was on the cusp of similar transformation.

The Schoenberg connection is also present in the second work Donatoni composed in 1967, *Souvenir Kammersymphonie op. 18*. Although based on fragments from Stockhausen’s *Gruppen*, there is a clear allusion to Schoenberg’s *Kammersymphonie op. 9* (1906). Both works are for fifteen players, and Donatoni’s opus number is the double of Schoenberg’s Op. 9. Giordano Montecchi points out Donatoni’s numerological fascination in this series, 6-9-15-18, with its skip of 12. The number 12 is the sum of the 363 fragments borrowed by Donatoni (3+6+3), and the number of years since Stockhausen wrote *Gruppen* (1955) (Montecchi, 98).

Of his Schoenberg choice in *Etwas*, Donatoni chose to use essentially

Neutral material, historically determined, yet outside the modern practice and therefore resistant, almost antagonistic, to the normal habits of the artisan. A material that violates the possibilities of control, of verification based on the decision of the outcome, where the aim to investigate with methods of control their extraneous turn to whichever predetermined history or style, and at the same time keep the control within the confines of the playful accuracy of the proper actions in order to extract any illusory reference to a possible spontaneity. The choice fell on the eighth measure, and limited to the first three beats, of the second movement of the *Fünf Klavierstücke, op.23*, of Schoenberg. (Questo, 89)



Figure 3.1Fünf Klavierstücke, op. 23, II

It is a matter of fragments placed under processes of multiplication and transformation, then a gradual reduction until its own impossible extinction, and an attempt – failed – of reintegrating the residual material to its original characteristic feature. (*Questo*, 92)

Donatoni continues to explain his choice:

I always found it difficult, maybe because of the dynamics *pp*, *ppp* and *pppp*, to understand what exactly happens in that moment. At hearing, what is intended. This elusive thing, in those few notes, something that passes unnoticed and therefore *must* [Donatoni's italics] be of importance and almost invite investigation into that that *must* be important. (*Ibid*, 89)

The establishing principle in generating material is the seven pitches found in the left hand of the Schoenberg fragment.



Figure 3.2 Left hand pitches from the Schoenberg Text

The pitches occurring in the left hand of the Schoenberg Text represent a movement from less to more, a multiplication of material. This first operation is a simple augmentation of the material, not only for accumulating time, but for concentration in space, and so cannot happen gradually, with stratification of actions understood to bind a few fragments with a certain quantity of sustaining sonority. Instead, it must serially extract, through variation, repetition, transposition, and displacement, the intervallic nuclei of these fragments. It is clear that the one-way direction implicit in augmentation permits its contradiction...a diminution or reduction...that can be considered a maximum growth. Therefore one needs to examine the pure, logical character of the possible operations, and not the final, conventional implications....Augmentation and diminution are equivalent aspects – even if they are contradictory – of a single process that can be defined as change: *the need to change is the goal of development, that is to say that development wishes to develop and nothing else.* (*Ibid*, 91)

Donatoni divides the work into four episodes:

1. Measures 1-60. Multiplication of the initial fragment, transposed and dislocated in time, broken up, rather than simply repeated. Also a gradual diminution of rhythmic values occurs successively beginning with the Vln. in m. 21, then Vc. in m. 28, Fl. in m. 34 and Cl. in m. 41:



Figure 3.3 Gradual diminution of rhythmic values in episode I

2. Measures 61-100. Development of a phenomenon defined as a gradual and progressive augmentation for accumulation and concentration; mm. 61-80 comprise a section that connects episode 1 to episode 2.
3. Measures 101-145. Development of a phenomenon defined as diminution or gradual and progressive reduction for dispersion and rarefaction.
4. Measures 146-166. An unsuccessful attempt at reconstructing the initial material with the precise goal of reintegrating the Schoenberg Text. The conclusion is intended as an arbitrary interruption of a failed experimental attempt.

Donatoni lists seven processes that take place in the work. He adds that he limits the list to methods of pitch transformation, and not, for example, rhythm, as it would be less interesting to the non-specialist reader (see below for a further analysis of aspects that Donatoni doesn't cover).

1. *Intervallic transposition*: The simple, basic operation of transposition.



Figure 3.4 Basic Transposition

2. *Transposable contrary form*: integral reversal of a figure according to a scale that runs through the entire possible space. (Donatoni's choice of range, as will be further explained later, is based on the lowest and highest notes in the Schoenberg Text).

Donatoni states that his choice of range is based on its symmetry; equidistantly a perfect fourth away from the extreme range of the piano, the instrument for which the initial fragment was written. He then uses octave displacement to allow for the range of the wind and string instruments.

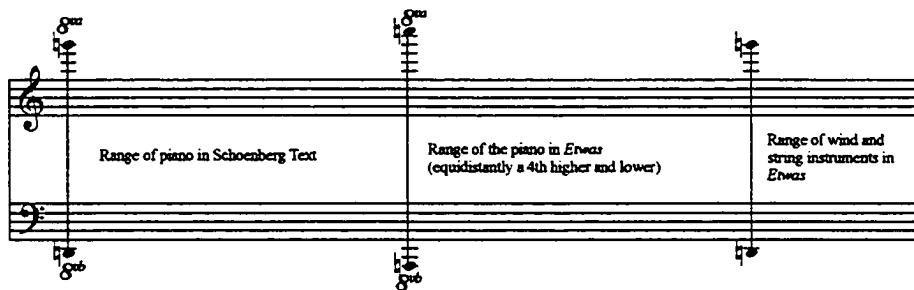


Figure 3.5 Boundary Range in *Etwas ruhiger im Ausdruck*

3. *Doubling the sequence*: A sequence may be lengthened by adding its inversion or retrograde inversion to a pivot made from the last pitch.



Figure 3.6 Double Sequence

Donatoni adds, "naturally this last case provokes notable dangers of excessive adjustment and the consequent temptation to *improve the situation to one's own advantage*. In other words: cheating at the game." (*Ibid*, 96)

4. Diacritical operation on a synchronic phenomenon and synchronization of a diachronic phenomenon. In other words, Donatoni makes vertical sonorities horizontal, and vice versa. The examples he gives show a plasticity to the sequence. Nevertheless, he warns again not "to run the risk of useless voluntarisms, and avoid the pleasure of intervallic hyperbole. In conclusion it is a question of *cooling* the temperature of the joke and maintaining it absent of exhibitionism: as much as possible." (*Ibid*, 98)



Figure 3.7 Diachronic Manipulation of a Synchronic Phenomenon

5. Reduction to a unison: Continuous intervallic mutation, converging chromatically with a variable distance and periodicity. The converging outcome is according to whether the initial interval is made up of an odd or even number of half-steps. An interval made from an even number will reduce to a unison, while an odd number will result in the interval of a minor second. One of the two pitches in this diad is then transposed up or down an octave, beginning the cycle of intervallic diminution again, with an interval of either a major seventh or a minor ninth.

6. *Projection of pitch:* One or more pitches may be projected from the context in which it is found, by means of octave transposition or its multiples: a rarely used method as it not yet understood completely and for the moment outside of the unambiguous research directed not toward the *death of the interval* but toward the conservation of the *dead interval*.
7. *Two or more of the previous methods described above used simultaneously:* Donatoni uses three examples from *Etwas ruhiger im Ausdruck* to show the methods listed above in practice.



Figure 3.8 *Etwas*, mm. 55-56, Violin

The first example, measures 55-56, violin, shows a *double sequence* in contrary motion, with a central pivot (F-natural). While there is a polarization of register guided by the sequence-pilot (the first half), the regularity of pitch motion is not polarized. Rather, the sequence-pilot is entirely bound by its intervallic construction. Donatoni specifically states that he wishes not to delve deeper into the specifics of intervallic construction, but it is clear to see that the process is essentially transposing the pilot-sequence and mapping itself onto the pivot pitch (F). Using mod 12 to find the number of half-steps in each interval, we see the strict intervallic adherence.

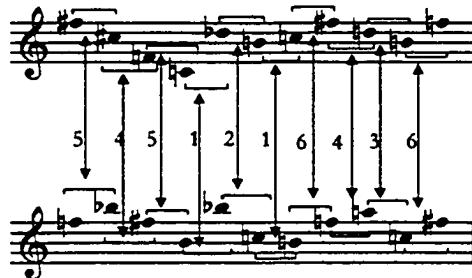


Figure 3.9 Intervallic coherence between the pilot-sequence and its double

If the pilot-sequence were simply inverted:



Figure 3.10 Pilot-sequence and its inversion

We see that we gain a pitch (A-flat) that is a minor-second outside of the boundary range. Equally important, we lose the pitch couple (F-natural, C-natural), found in the pilot-sequence. By twisting the "rules" of the sequence, Donatoni manages to keep this diad. He writes, "the pitch polarization of a double sequence refers, in cases of ambivalence, to the position of frequencies in the last appearance." (Ibid, 100)

Donatoni then shows a fragment from the flute part in measure 71:



Figure 3.11 Etwas, m.71, Flute

According to the rules used in measures 55-56 (see above) this seems like an error.

And Donatoni admits that the "correct" sequence (according to mm.55-56) would be the following example, the pilot-sequence with its inversion mapped onto it:

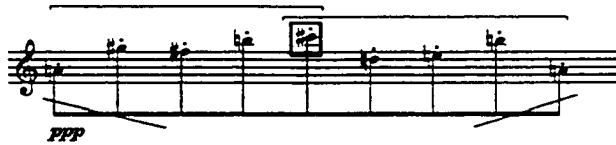


Figure 3.12 "Correct" solution for m.71, Flute

He writes, "It is possible to admit that the error might have been due to an *excessive inclination toward the plasticity of the sequence*, to an unconscious *graphic simplification* [he refers to the gradually ascending pitches]" (*Ibid.*, 102). On closer inspection, one sees that the "erroneous" sequence possesses a clearer organizational principle. It is based on a simple retrograde inversion, with only one pitch, G-sharp, displaced by octave (a process Donatoni uses often, to keep structural pitches in equal registers). It also has an economy of intervals compared to the "correct" solution:

"Erroneous example"	"Correct" example
Major 2 nd ascending (2)	Major 2 nd ascending (2)
Major 2 nd descending (2)	Major 2 nd descending (1)
Perfect 4 th ascending (1)	Perfect 4 th ascending (1)
Perfect 5 th descending (1)	Perfect 5 th descending (1)
Major 7 th ascending (2)	Major 7 th ascending (1)
	Major 7 th descending (1)
	Major 9 th descending (1)

Figure 3.13 Interval Comparison Between Figures 11 and 12

The third fragment Donatoni presents is taken from the flute part in m.69:



Figure 3.14 Fragment from m.69, Flute

The dotted lines, box, and small B-flat were added by Donatoni to demonstrate an additional rule that operates here. If the sequence were mapped onto itself with inversion as it was in the first example (the most common procedure in *Etwas ruhiger im Ausdruck*, then the resulting double sequence would be:



Figure 3. 15 "Correct" version of m.69, Flute

To rationalize his “error,” he makes a new rule, “If the ambivalence of register is determined by contiguity mediated by intermediary frequency and chromatic symmetry, than the doubled sequence will be without repetition and the retrograde inversion will continue regularly starting from the last intermediary pitch” (*Ibid.*, 103). In other words, because there is intervallic symmetry between the second, third, and fourth pitches (C-sharp, G, C-sharp), the doubled sequence removes the B-flat, which would create a repetition.

In summing up the above procedures, Donatoni suggests that, “all the rules produce the effect of distracting from the goal that which stands behind the rule. At the same time, take into account that distraction from the goal can become discouraged by excessive efforts that contribute to propose the eventuality of the goal as recompense” (*Ibid.*, 104). In other words, erring in one’s compositional procedure is a natural process, and the greatest error would be an attempt to correct one’s natural tendencies (*Ibid.*, 106).

In the last two cases, abandoning of one rule for another happens because certain properties which the double sequence requires would not occur otherwise. Strangely, Donatoni then seems to go back on his rationalizations of the differences in each fragment:

Furthermore, the two fragments don't present particular differences when compared to each other that could be attributed to a matter of personal taste, and on that account ignored. Therefore, it's a question of error in the rigorous application of the laws that regulate the game, and nothing else. It's true that the cause of an error is the presence of a bad player, but it's also true that the game is in no way vulnerable from mistaken moves by a novice.

The normative function that rules exert inside a certain clear context is more interesting than the bravura of a single player. He, with his wrong move, influences the consequences, which carry in them the consequences of the error. . . . If, finding accidentally the error . . . does he obey the temptation to begin everything from the start? If he consents to the error, the submission perhaps doesn't reflect identically to the action of that slothful and superficial type, who is inclined to consider trifles as everything that contradicts the presumption of his own bravura? . . . The reproduction of gestures as the repetition of exact acts is worse if it is prompted by the intention to correct the error. *It is the worse error* [FD's emphasis], because in reality there is no occasion to correct it, but to correct the attitude of erring . . . In any case, the outcome of acts isn't reversible, since if the object may be modified, its transitory nature is something that the reality formed by actions cannot replace. (*Questo*, 106)

To consider the consequences of the two errors (fig. 11 and fig. 14), Donatoni jumps to bar 111, where the flute begins a process that he defines as an **irreducible periodic sequence**.



Figure 3. 16 The Irreducible Periodic Sequence

Since the first fourteen-pitch bar is made solely of intervals that contain an odd number of half-steps, the sequence becomes irreducible. At any point, if two pitches (by means of intervallic diminution) reach a minor second, one of the pitches is shifted an octave in order to achieve a minor ninth. The process then can begin again. The example above contains 196 pitches in fourteen bars, and repeats itself three times, finally being interrupted in m. 145, when the piano's material has been reduced to a single trill. It bears mentioning that this sequence may operate on any collection of pitches, as long as they adhere to intervals of odd numbered half-steps. The sequence will repeat itself on the fifteenth reduction, regardless of the number of pitches. Donatoni's choice of fourteen pitches and fourteen bars is then purely aesthetic.

The composer assures that this sequence was found by accident, and goes on to suggest that other unconscious errors helped determine the periodic sequence.

If one would find the intervallic rationalization behind the cycle of augmentation-diminution in the two central episodes [mm.61-145], it would be quite difficult . . . to describe the rapport between the predetermined function that regulates the accidental moment of the two erroneous sequences. And furthermore, the function that

regulates the appearance of consequent laws of predetermination that regulates the irreducible cycle. . . . In any case, an event that cannot be analyzed has never amazed anyone; the reasons for amazement reside in unanalyzable processes, that by means of compositional operations are mediated by a transformational action. (*Questo*, 109)

Strangely enough, he follows this statement with an analysis of the irreducible periodic sequence. Range is once again a point of departure for Donatoni's process. We see that the fourteen-bar sequence encompasses almost two octaves:



Figure 3. 17 Range of the Irreducible Periodic Sequence

Within this range, Donatoni finds the number of repetitions of each pitch, and consequently discovers the inherent symmetry:



Figure 3. 18 Symmetrical Pitch Repetition in the Irreducible Periodic Sequence

The next step involves adding all pitch classes, of any octave register, together:



Figure 3. 19 Internal Symmetry in the Irreducible Periodic Sequence

The octave, according to the composer, is the even interval *par excellence*, and the model for all even intervals. Therefore one may think that it has a need for binary

expression that strives to find satisfaction and equilibrium from the transformational action occurring in the odd intervals. The octave has an intrinsic passive function as well as a static energy (*Ibid.*, 111). Referring back to Fig. 19, we see the importance of the numbers 7 and 8. Together they add up to 15, a symmetrical number of utmost importance to Donatoni: these two numbers, 7 and 8, represent even and odd intervals. There is a functional logic to the symmetrical repetition in the series, with its octave prevalence; a need for the binary, expressed in the even-odd opposition.

Donatoni shows all this analysis as a byproduct of his intuitive subconscious, and is careful to point out that it is not the organizational principle. As Michael Barkl points out, this symmetry is hardly present in the actual work (aside from the rapport of even and odd intervals), and perhaps Donatoni discovered these properties after writing the piece.

GENERAL CONSTRUCTION TECHNIQUES IN *Etwas*: measures 1-20

In this section, I will briefly outline both the massive analysis of *Etwas* that Michael Barkl completed in 1985 and the Robert Piencikowski analysis from 1986. Barkl took Donatoni's writings as a starting point for his own analysis. He, too, divides the work into four sections, although he concludes that aurally the effect is three sections (1-20, 21-145, and 146-166), due to the intervallic content, which is inconsistent in the outer sections and consistent in the middle. The first twenty bars are made up of "real (as opposed to tonal or otherwise altered) retrograde inversions and transpositions of the Schoenberg Text" (Barkl, 204). The last section is derived solely from the flute in bars 144-145, and has the same quality of coherence as the first movement. Its return to the Schoenberg Text also links it to the first movement. Barkl feels that the middle section, which employs the system of intervallic diminution, insures that "intervallic quality always remains in a state of flux." (*Ibid.*, 204)

He concludes by making a comparison between indeterminacy and the highly organized world of *Etwas ruhiger im Ausdruck*:

. . . The fact that each instrument pursues its course independently results in a certain lack of control which is perceived aurally. These results, of course, may be quite within the composer's intention. The whole middle section seems as if it could almost be a written-out version of an aleatoric passage taken from a previous aleatoric piece. *The processes are essentially the same: a set of automatisms act on a body of material to form a result which is not pre-specified* [emphasis mine]. (Ibid., 204)

The last sentence above is absolutely critical to this dissertation; it hints at a correlation between *Etwas* and earlier works of Donatoni that will be discussed further in Chapter Four.

Within bars 1-20, quotation or transposition of the Schoenberg text in the piano part forms the basis of all construction. Every minuscule element of the fragment – range, accents, slurs, dynamics, rhythm, and pitch – will be used to derive the entire work. Barkl refers to quotations or transpositions of the Schoenberg text as Primary materials. They are always presented as triplets, duplets, quintuplets, or septuplets. Primaries are always followed by a Commentary, presented as grace notes. In this first section, the winds' and strings' pitch and rhythmic material is a retrograde inversion of the piano material. Vertical chords in the piano are converted to horizontal melodies in other instruments.

In the piano, a Commentary grace-note group follows each Primary. The Commentary is a retrograde inversion of a Primary. Within the three subsections of mm. 1-20, the Commentaries and Primaries are arranged in retrograde sequence. Therefore, in m.1, the Commentary for the first beat occurs in the last beat of m.6, while the Primary for the two grace notes in m.1, occurs in the last beat of m.6.

Range is directly related to Schoenberg Text. Every retrograde inversion in winds and strings is equidistant from the range boundary notes. The winds and strings

instrument comment on the piano material by inverting it according to the pitch range of the Schoenberg Text. Donatoni based the transposition on the piano range of the Schoenberg Text, from D1 to g'. In order to include the possible ranges of the rest of the ensemble, Donatoni has limited the collective range from D to g''.



Figure 3. 20 Inverted Pitch Relationship (Barkl, 39)

Dynamics are equal to the Schoenberg Text in Primaries. Commentary dynamics are based on the Primary preceding it, and like the Text, never rise above a *pp*. Donatoni breaks up the Text in the piano and intersperses mm. 1-20 with fragments of the original in different inversions, remaining faithful to the original rhythmic outline. The first twenty bars are small commentaries on these fragments, with carefully planned parameters of rhythm, form, dynamics, pitch, and range.

The rhythmic structure is based on the sequence 3457543. Each measure corresponds to a specific tuplet: i.e., measure 1 = triplet (3), and so the major subdivision of the beat is the triplet. Measure 2 = duplet (4), and the division of the beat is simple time. Measure 3 = quintuplet (5), and so on. The sequence of tuplets: 3457 is then retrograded using 7 as a pivot. The doubled sequence, 3457543, in turn is stated three times throughout this section (mm. 1-6, 7-13, 14-20).

The rhythmic sequence mentioned above also relates to the row transposition used at any given moment. The transposition of the Primaries is based on the left hand of the Schoenberg Text, and its intervallic makeup from the initial note (D1).

D → G-flat: dim. 4th
D → C: minor 7th
D → F: minor 10th
D → E: major 9th
D → C-sharp: major 7th
D → G-sharp: augmented 4th

Figure 3. 21 Transposition Based on the Left Hand of the Schoenberg Text

Sequence: 3 4 5 7 5 4 3
No trans. dim.4th m.7th m.10th M.9th M.7th Aug.4th

Figure 3. 22 Relation of Transposition Level to the Tuplet Sequence

Measures 21-100: Rereading of Verses Based on mm. 1-20

Whereas mm. 1-20 had an absolute kinship between piano and the rest of the ensemble, here the two groups begin to diverge. Winds and strings now include variations on the opening verse (mm. 1-20) through intervallic and rhythmic diminution. The piano, though, remains unwavering in the rhythmic sequence established in part I. Bars 21-40 are an exact inversion of bars 1-20 in the piano, based on the range grid explained previously. Not only does the piano keep the same sequence, it also keeps the same rhythms in mm. 21-40.

Measures 41-60 are an intervallic diminution and verticalization of mm. 1-20. Measures 61-80 are an inversion of 41-60 using the rhythm. Measures 81-100 are a further diminution of the intervallic and horizontal makeup of bars 61-80.

1. Winds and Strings : Rhythmic construction

While the piano remains steady in its rhythmic sequence, the winds and strings begin to diverge, one instrument at a time. A rhythmic diminution begins with the violin in m. 21. It proceeds first with half notes, which pass through dotted quarter notes, quarters, dotted eighths, eighths, and finally grace notes in m.54. This diminution occurs in all instruments, but begins in successively six or seven bars after each entrance:

Violin: m. 21 — lasting 40 bars
 Cello: m. 28 (+7 bars) — lasting 40 bars
 Flute: m. 34 (+6 bars) — lasting 40 bars
 Clarinet: m. 41 (+7 bars) — lasting 40 bars

When each instrument finishes the diminution, a second section begins, and is therefore staggered in its starting point. The second section is a written out accelerando, where the number of notes per bar is gradually increased by two until a peak is attained.

2. Winds and Strings: Pitch

A pitch axis is used to contract intervals found in mm. 1-20. There are a number of irregularities that become regular over the course of the piece, but the general principle is a contraction by half step to a central axis of a unison or a half step. If a unison axis forms, than a rest is created. In the case of a minor second axis, one of the notes jumps the octave, and the process of contraction begins again. Below is an example of what Michael Barkl refers to as Interval Diminution (also explained by Donatoni in *Questo*, 98).

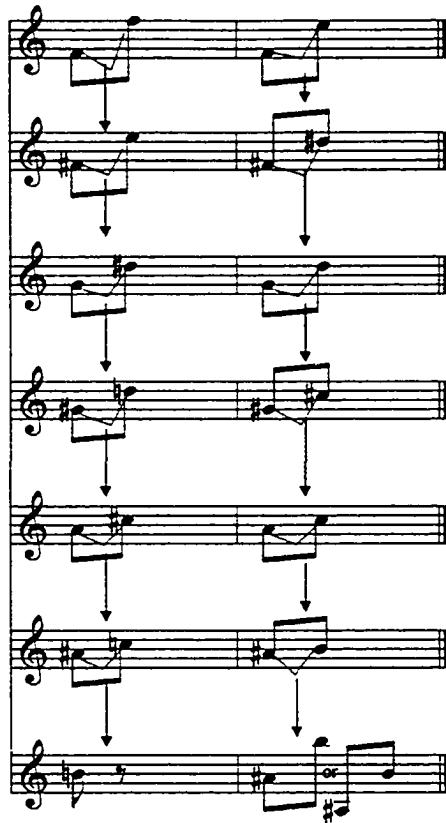


Figure 3. 23 Interval Diminution

Extending pitch sequences through inversion or retrograde inversion added on to the original sequence derives new pitch material. The rhythmic diminution anticipates the verse repetition more frequently, so that by the time we have reached the point of peak diminution, the verse is passing by almost every two bars.

Michael Barkl's exhaustive dissertation on *Etwas* traces each instrument's path, its remapped continuity and variation through every measure.

Dynamics:

As the variations on mm. 1-20 progress, dynamics are at first retained, so even when the second level of variation has been reached (for example, m. 65, flute) the same dynamic indications are used.

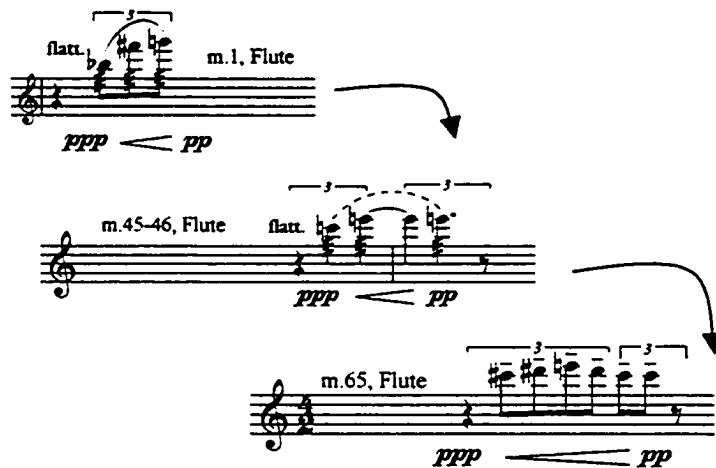


Figure 3. 24 Retention of Dynamics through Two Variations

However, the next level of variation initiates the written accelerando, and the quantity of notes per measure makes it unfeasible to keep such subtle gradations of dynamic change. Only one dynamic per bar is then used. The first note of each bar determines the dynamic for the entire bar. For example, m. 90 is marked *ppp legno tasto* for the Cello (for the sake of brevity, the example below shows only the first four pitches of the cello's twenty notes in m. 90), which ultimately refers back to the figure's first statement at m. 20.

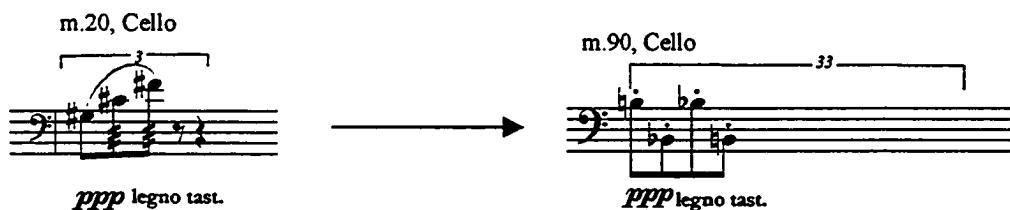


Figure 3. 25 Retention of Dynamics in the Cello

3. Piano Construction, mm. 41-60.

As previously said, mm. 21-40 are a simple inversion based on the boundary grid, while keeping rhythms similar. Measures 41-60, however, operate with intervallic diminution in the same manner that the winds and strings operate in mm. 21-100. Thus m. 1 relates to m. 41, m. 2 relates to 42, and so on.

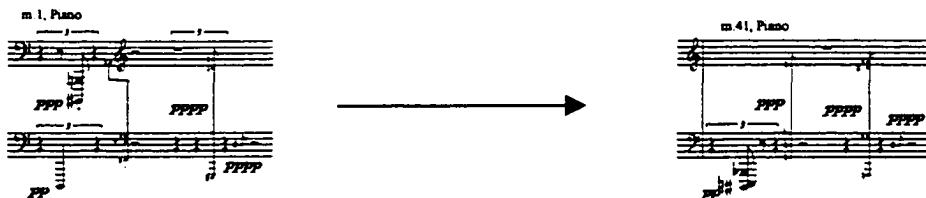


Figure 3. 26 Intervallic Diminution between m. 1 and m. 41, Piano

Notice that in the examples above, m. 1 has a duplet grace note that is converted into a vertical sonority in m. 41. In addition, the quarter note triplet in the first beat of m. 1 is halved in value in m. 41. These two principles also guide the construction of the piano writing in this section: all horizontal lines become vertical, and all durations become eighth notes or grace notes. This lends a dry, rarified aspect and marks a turn in events. Whereas the rest of the ensemble previously had short, staccato attacks, the piano writing included tenuto marks, held notes of half-note durations and longer, and melodic lines.

4. Piano Construction mm. 61-80.

Using the Inverted Pitch Relationship grid, Donatoni generates mm. 61-80 from mm. 41-60. All rhythmic figures are kept the same, as well as the twenty-bar verse.

The figure consists of two musical staves. The left staff, labeled "M. 41, Piano", shows a treble clef staff with three vertical stems pointing down. The right staff, labeled "M. 61, Piano", shows a bass clef staff with three vertical stems pointing up. Arrows indicate pitch relationships between corresponding notes in the two measures, showing how the pitch of a note in measure 41 is inverted in measure 61. The dynamic "ppp" is written above the top staff in both measures.

Figure 3. 27 M. 41 to M. 61, Piano: Inverted Pitch Relationships

5. Piano Construction, mm. 81-100

Donatoni reverts to the system used in mm. 41-60: this twenty-bar verse is an intervallic diminution of 61-80, similar in procedure to what occurs in the winds and strings throughout mm. 21-100. Beyond pitch variation, there is a transformation of all verticals into horizontal grace note groupings. For example, the first beat of m. 61, shown above, is transformed into the following:

The figure shows a treble clef staff with a single vertical stem. Above the staff, a grace note grouping is shown with a bracket and the number "8". The dynamic "pp" is written above the staff. Below the staff, a vertical bar line is followed by a dynamic "ppp". The staff itself has two vertical stems, one pointing up and one pointing down, indicating the inversion of the pitch relationship shown in Figure 3.27.

Figure 3. 28 M. 81, Piano

To recap the events in the piano "variations":

mm.1-20:	first verse
mm.21-40:	rhythms stay constant, pitches are inverted using the range grid
mm.41-60:	intervallic diminution of bars 21-40 with rhythmic changes
mm.61-80:	inversion using the range grid of bars 41-60
mm.81-100:	intervallic diminution of bars 61-80

Figure 3. 29 Summary of Part I, Piano

6. Bars 101-145: Part II

Now begins a process of negation and cancellation, purely based on m. 100.

The procedure is simply continuing the intervallic diminution with rest omission in each measure. Measure 101 omits all the rests in m. 100 and is left with twenty-one pitches and one rest. In m. 102, the rest is omitted and the 21 pitches of m. 101 are once again run through the interval diminution process. This method of referring back to the previous measure continues until the end of the work. Below is an example, demonstrating the path from m. 100, 101, to 102.

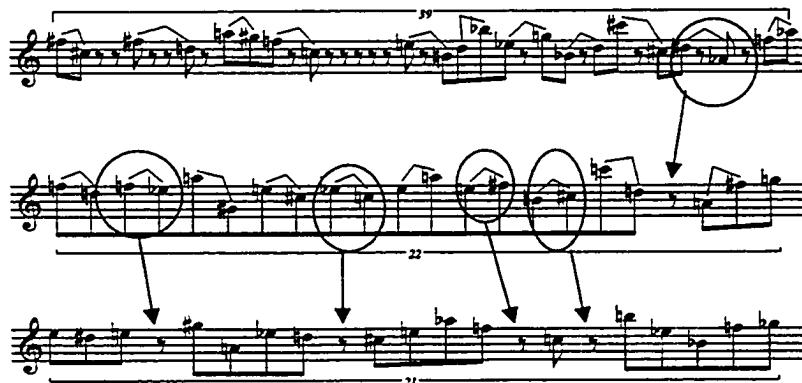


Figure 3. 30 Process of Diminution in mm. 100-102

This process continues, with every measure containing one duration fewer. At measure 111, when fourteen pitches per bar is reached, Donatoni begins an irreducible periodic sequence (discussed earlier in this chapter) of fourteen bars in the flute, which

repeats at m. 125. It then attempts another repetition at m. 139, but is cut off at m. 146, in conjunction with the end of the piano's material.

The remaining instruments opt not to create a periodic sequence; instead, they continue reducing intervals and omitting pitches, until a trill between two pitches, a minor second apart, remains. Each instrument successively drops out until only the piano and flute remain in m. 145.

In mm. 101-145, the piano has an extra process in operation: the addition of grace notes. As m. 101 shows, the grace notes are not placed haphazardly; they occur symmetrically in the measure, so that a grace note placed on the second note will require a grace note on the second-last note. The pitches themselves also refer to their corresponding symmetrical position. In the example below, the D-sharp grace note on the second note is derived from the second-last note, and the E grace note on the second-last note refers to the second pitch. Finally, the point at which grace notes are added is also systematic: only symmetrical pairs of notes that are a minor 9th or a major 7th apart are decorated with grace notes. In the example below, the second and second-last notes (E and D-sharp), and fourth and fourth-last notes (C and B) adhere to this principle.

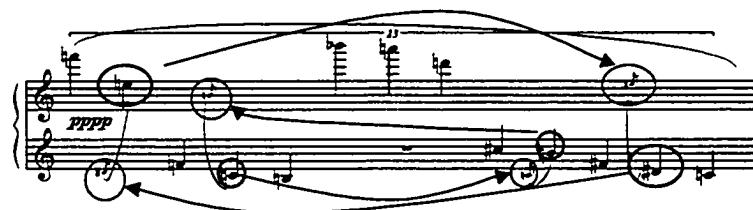


Figure 3.31 M.101, Piano: Grace-Note Derivation

7. Measures 146-166

This final section is an attempt at reconstructing the original Schoenberg excerpt. The two bars that precede this section (144-145) are the source of material for this section (both Donatoni and Barkl refers to this as the Pilot Sequence). Without any sort of change, the notes are repeated five times, orchestrated throughout the ensemble like a sort of *Klangfarbenmelodie*. The piano is faithful to the original Schoenberg Text, at first stating three of the eighteen pitches at a time, then increasing at m. 156 to six pitches at a time, and finishing with a complete statement of the Schoenberg Text in m. 166. In each measure, the wind and string instruments are divided into two groups: in sustained notes, one group plays an inversion (based on fig. 20) of whichever Schoenberg fragment the piano has, while the second group plays the remaining pitches of the pilot sequence.

As mentioned previously in this chapter, Donatoni refers to this last section as a failed attempt at reconstructing the original Schoenberg Text. On a purely technical level, Fig. 30 and 31 show one reason for this failure. Because Donatoni is attempting to integrate the pilot sequence, the Schoenberg Text, *and* its inversion in each measure, there are times when this simply cannot be done. In fig. 31, we see that the Schoenberg fragment, (G-flat, C-sharp, A, C) cannot be fully reproduced because the Pilot Sequence is missing an A.

Rhythmically, this section began by keeping the previous division of fourteen beats per bar. At m. 156, Donatoni has finished the first phase of mapping out the Schoenberg Text. Beginning a new phase, he now makes a rhythmic diminution to twenty-eight beats per measure, as though hoping that this could increase the chances of finding all the necessary pitches. At m. 161, he clears the texture by removing all pilot sequence pitches that do not belong to the Schoenberg fragment, and begins the final phase of reconstruction. “It seems that one note in the Pilot Sequence useful for

reconstruction is now sufficient to trigger any number of required notes (whether or not they appear in the Pilot Sequence) provided they are presented vertically in a chord" (Ibid., 202).

144

146

etwas ruhiger im Ausdruck

s

f

pp *ppp* *legato pont.* *ppp* *ppp* *pp*

V

piloten

Figure 3. 32 Pilot Sequence and Schoenberg Text relation to m. 146

145

147

pp

pppp

pppp legno pont.

ppp

ppp arco tast.

pp

etwas ruhiger im Ausdruck

Figure 3. 33 Pilot Sequence and Schoenberg Text Relation to m. 147

Outline of Piencikowski's Analysis of *Etwas*

Robert Piencikowski's analysis attempts to confront the score from a different angle than that suggested by the composer. Piencikowski criticizes Donatoni's self-analysis as filled with opposing tendencies of "aphasia and volubility," and warns that in contemporary music, the author's notes constitute a veritable Trojan horse for anyone wishing to form an interpretation free from pure servility (Piencikowski, 147).

Piencikowski writes that the original fragment (Schoenberg Text) resurfaces at the beginning of the work with brief citation of the Schoenberg fragment in mm. 1, 7, and 14. Obviously, this is only half true: as Barkl's analysis shows, the Schoenberg Text is found in every measure of the first section.

Piencikowski believes that several of the processes used in *Etwas* evoke the serialism of the 1950s: transpositions obtained from different gradations of the melodic line found in the bass, and axial symmetry. However, Piencikowski distinguishes Donatoni's parting with the serial school, "If the serial procedure is based on isomorphism of groups susceptible to partial derivation, Donatoni limits himself here to mechanically selecting his material, using fragmentation that goes from one to four base pitches. This procedure is repeated circularly at every transposition, according to a constant rotation" (Piencikowski, 148).

Piencikowski's analysis is similar to Barkl's in terms of formal divisions. Also, both authors discovered the tuplet sequence that governs the first section (mm. 1-20), and the importance of the piano as primary source. Piencikowski, however, has constructed the following grid, based on the Schoenberg Text (upper left-hand corner), which he states is responsible for mm. 1-100. The subdivision of each measure in the grid refers to Donatoni's subdivision of *Etwas*'s five phrases of twenty measures into three sequences of seven measures.

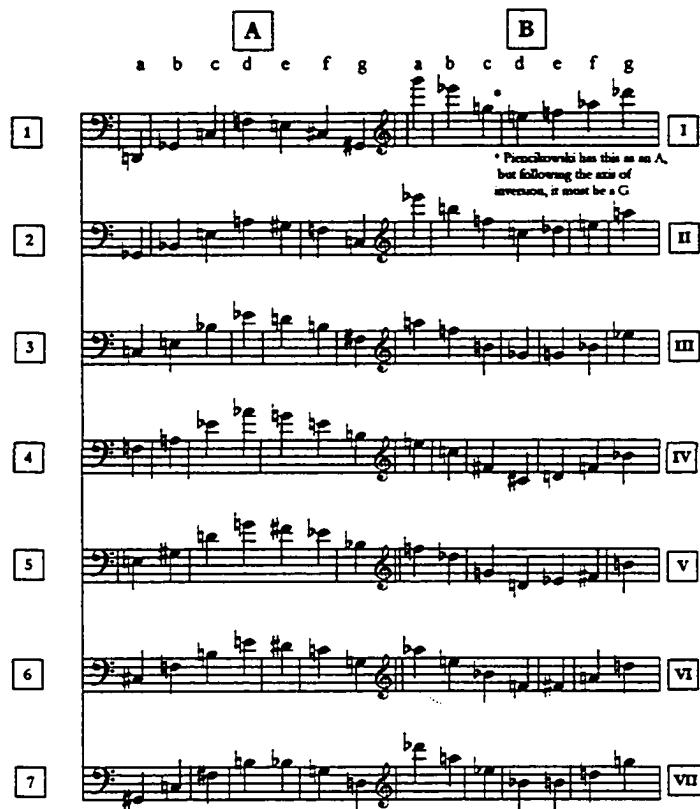


Figure 3.34 Rotational Transpositions and Inversions of the Primary Sequence

Figure 34, column B includes pitches played by the remaining instruments. Both Barkl and Piencikowski are therefore aware of the retrograde inversion connection between piano and the remaining instruments, yet Piencikowski fails to mention the rhythmic retrograde inversion between instruments. Using the grid above, he demonstrates how Donatoni constructs mm. 1-20 by splitting up this sequence into three phrases. For example, the first pitch of the primary sequence is found in m. 1, the next two pitches in m. 7, and the final four in m. 14. Fig. 33 below shows the fragmentation of the seven transpositions of the primary sequence. There is a beautiful simplicity in this analysis, but it does not account for every pitch of the Schoenberg text.



Figure 3. 35 Period 1 (mm. 1-20), Piano

According to Piencikowski the grace notes are partially derived from the original material but without obeying the same global logic – they are treated as episodic commentary, yet Piencikowski seems to imply that the grace notes are not soundly constructed. Both Barkl and Piencikowski share the notion of primaries and commentaries, but Barkl did discover that grace notes are also obeying a strict global logic, as well as accounting for every pitch from the Schoenberg Text.

To give a brief explanation of Piencikowski's method, let us examine m. 7. Piencikowski's analysis relies on extreme ranges, and so he ignores all the pitches that lie between the upper and lower ranges. According to fig. 32, G-flat and C make up the principal pitch material. From Column B we take the paired pitches E-flat and G. I chose this measure because it is the anomaly in measures 1-20: pitch G doesn't exist in the measure. Piencikowski altered the sequence to allow for Donatoni's "error" (perhaps Donatoni altered the pitch to avoid octaves between the violin and flute). Yet, Barkl's analysis completely accounts for every pitch in the measure, without having to alter a system. If we use the system of retrograde inversion based on the E-F axis (which Barkl refers to as an "inverted pitch relationship" and even Piencikowski recognizes, but doesn't use), we can justify the presence of every pitch.

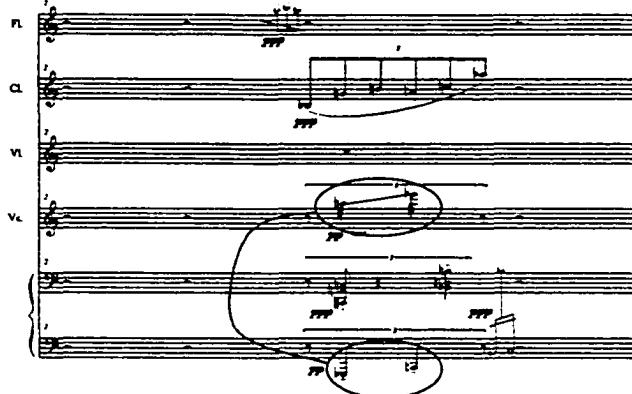


Figure 3. 36 Measure 7, Piencikowski Analysis

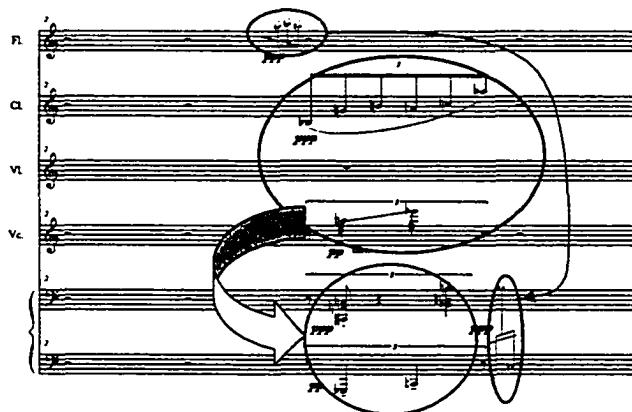


Figure 3. 37 Barkl Analysis

In the second period² (mm. 21-40), both analyses account for the intervallic reduction in the piano and the monodic instruments' gradually increasing individual paths. Both note the six periods of rhythmic diminution, and both explain how additional material is produced by using the final note of a figure as a symmetrical inversional axis.

² Piencikowski refers to verses as periods.

From m. 61 to m. 100, both authors agree that diminution ends and the accelerando begins by gradually adding an odd number of notes per bar (1, 3, 5, 7, etc.). Piencikowski, like Barkl, also discovers that the rests are created through the chromatic reduction of intervals into unisons.

Like Barkl, Piencikowski's analysis agrees with the gradual dissolution in mm. 101-143, and the use of mm. 144-145 as source material for the final section.

The relationship between measures 100 and 101 is a simple chromatic variation, with intervals in pairs, where the top note descends and the bottom ascends by semitone. These variations continue until the exhaustion of the material. Instruments are treated individually. Rhythm, dynamics, attacks and phrasing are all subordinate to the principle of intervallic variation. The piano, which is treated in a monodic manner as the other instruments, is limited to underlining the symmetry of the figure with simple additions of grace notes. (Piencikowski, 147)

Perhaps in a clearer fashion, Piencikowski points out that mm. 156-160 are a repetition of mm. 146-155, only rhythmically diminished, so that what occurred in ten measures now occurs in five. Also, both scholars note that the A-natural, the only pitch missing from the Pilot Sequence, is added in mm. 156-160 to complete the fragments.

One can think of the work in two parts (mm. 1-100, and m. 100 to the end). The first part is a progressive dissolution of structural ties toward an individual instrumental behavior (from vertical to horizontal), while the second part traverses the same route in reverse. Compositionally, *ostinato* is a unifying factor: the use of repeating periods in the first part, and the *Klangfarbenmelodie* in the second.

In his analysis, Piencikowski points out several criticisms of the work. In spite of Donatoni's careful axial symmetry, instruments do not observe correct octave placements. Rhythmically, the whole work is "suffocated by the yoke" of the 4/2

meter, and becomes increasingly problematic when coupled with complex rhythms (m. 156, for example). There are many points where the theoretical motivation for the piece seems to supersede the technical possibilities of the instrument: for example, in mm. 111-145 the flute does not have one moment to take a breath.

Piencikowski attacks Donatoni's haphazard omission of notes. Measure 66, for example, has presented problems for both Piencikowski and Barkl. Its origin is simply omitted by Barkl, although it seems rational that it is formed by adding double sequences to m. 47. Both authors agree that in m. 81, there should be a sequence relating to m. 66, yet Donatoni doesn't take this route. Barkl shows both paths: the one Donatoni doesn't take, and the one he chooses, based on measures 65, 66, and 68. Piencikowski, however, condemns Donatoni for not justifying this change in pattern, and adds that a similar phenomenon occurs between mm. 78 and 84.

Equally troublesome for Piencikowski is the production of ornamental variants by adding an inversion over an axis (double sequence, as Barkl calls it). In *Questo*, Donatoni reveals and assumes full responsibility for several errors in these variants. When the pitch group is sufficiently complex to sustain a rapport with its inversion, any difficulty of realization is glossed over. But when he uses simple, isomorphic, non-invertible figures, their strength is such as to create conflict with the global homogeneity, breaking the stylistic coherence even more so because they occur for the most part in clearly heard spots (Piencikowski, 157). What one immediately hears, then, are the stacked fourths from the Schoenberg text, conflicting with Donatoni's ideal of the *intervallo morto*. Piencikowski concludes that *Etwas* poses a problem of derivation: the work rests purely on mechanisms, and remains incapable of liberating itself from a foreseeable periodicity. "This short composition . . . places itself at the intersection of morphology and form, in the gap between the object of the manipulation and manipulation itself" (Piencikowski, 158).

The analyses of Piencikowski and Barkl are both responses to Donatoni's own analysis in *Questo*. Principally, they differ in that Piencikowski wishes to ignore Donatoni's analysis in an attempt to discover mechanisms or processes that the composer may not have been aware, while Barkl tries to piece together an analysis that completes Donatoni's partial, enigmatic essay.

Piencikowski successfully demonstrates how Donatoni distinguishes his technique from the conventional serial procedures of the 1950s by means of fragmentation and rotation. While Piencikowski has discovered several aspects that neither Barkl nor Donatoni discuss, his analysis falters at times when pitches operate differently than he expects. I believe Barkl successfully demonstrates how Donatoni created *Etwas ruhiger im Ausdruck*, a completely organic work, where all pitches, rhythms, and dynamics are mechanically derived from an initial fragment.

CHAPTER FOUR CONCLUSION

Although *Per Orchestra* (1962) and *Etwas ruhiger im Ausdruck* (1967) on a surface level seem to be unrelated opposites, they both belong to a larger, ephemeral category of nihilistic anti-music that spanned more than a decade of Donatoni's output. While *Per Orchestra* exhibits a planned total loss of control through indeterminism, *Etwas* marks a dissociation from will, creativity, and intuition through rigid, controlled processes. Through these distinctly different methods, Donatoni achieved the destruction of Identity/Creator. Both approaches lack expression, spontaneity, and inventiveness. Yet by 1978, Donatoni succeeded in evolving to a style that borrowed elements from both extremes, and in reinventing himself as a composer of wit, inventiveness, and humor.

As Chapter One suggests, there are several convincing ways of dividing Donatoni's stylistic evolution, and Donatoni himself wavered from the seven-year divisions to two periods: 1967-1978 and 1978 to the present. Although Donatoni said that his compositional rebirth occurred in 1978 with *Ash* and *Arie*, I believe the first period ended in 1972, after *To Earle Two*, for orchestra, was composed. Interviewed in 1982, the composer called it

the greatest failure of my life, sixteen months of work, sixteen hours a day, the most masochistic thing I have known: *To earle two*, was the exact opposite of the first. The first was a tiny score that achieved a great deal of sound; the second was an enormous score, gigantic and overworked, that achieved nothing. The effect was chaos, where all the forms became swallowed by chaos, by a conscious chaos that operated according to automatisms. The most violent remission possible of one's own desire: I was afraid even to think. They performed it last year [1981], but it was truly a memory of death. (*Sigaro*, 8)

After that composition, Donatoni's music slowly began breaking through to a fresh, joyous style. "Automatisms give way to the imagination, and for the first time, invention creates a healthy straddling of imagination and process: for the first time Donatoni, by means of composition, begins to play" (Colazzo, 120). Still, the second period is certainly imbued with traits borne over from the first period: predominantly, panel construction, virtuosic instrumental writing, and *ostinato*-based automatisms and processes.

As Gianmario Borio has noted, works from the second period, like *Spiri* (1977), begin similarly to *Etwas*, with an elaboration of a motivic cell. What separates the former from the latter is a conservation of energy, instead of dissolution of the motive. For the second-period Donatoni, composition signified invention of a musical thought, ornamentation and multiplication of thoughts, distribution of those elements in closed sections, and architectonic disposition of the parts in a formal totality (Borio, 226). In the same 1982 interview, Angelo Valori asked Donatoni, "What function, for an artisan like you, did the period of indeterminacy have, in which the part of the artisan is completely removed?"

Donatoni replied, "The function of loss. . . . A true death of the musician. . . . I remember a performance in 1965 with Piero Santi. It wasn't a bad performance: it was a piece that didn't exist. With all the responsibility that the so-called "aleatoric composer" must have, there is also that of not being a composer at all. . . . One sacrifices the composer through the loss of the composed work. I believe there is identification between the work and the composer, and if one dies so does the other. There is truly a dissociation: I am not the work, however I'm the worker, because I accomplish the operation. Therefore the identification doesn't come with what has already been accomplished, but with the thing that I'm in the act of doing. But that which I'm doing must have consciousness: otherwise the operations become automatic, where the system is the commandment, and must be obeyed. . . . It is an ascetic technique, in short. In time, the thing becomes more flexible; the principle becomes extinct. It's not that the operations become more diverse, but that they begin to emerge from the unconscious."

Operations that are not analytical, but pre-analytical . . . The operations are very important, because they are one's life, and it would be impossible not to have them influence what you write. This double process of self-projection and openness to the other inevitably gives the effect that can affirm the work, and by consequence, one's state of mind. (*Sigaro*, 10-11)

It is clear that Donatoni was very much aware of the two extremes of his earlier style, and their final conciliation into a style that allowed for freedom of expression while retaining elements of control. Chronologically, the first period can easily be divided into chance-driven works and works driven by process/automatism, yet I now believe that all the works of the first period are highly pervaded by John Cage's influence. The sense of negativism, self-destruction, and error discussed in *Questo* (1970) refers to indeterminacy, but I believe that by 1972 Donatoni would have included *Etwas ruhiger im Ausdruck* (and *To Earle Two*) as part of the problem, not the solution.

Through analyses of *Per Orchestra* and *Etwas*, we have seen that in spite of Donatoni's rejection of indeterminacy, both works share elements that would later influence the second period's positive works. In *Per Orchestra*, despite an overall impression of chaos, I have shown how strict processes and symmetry build the work. What separates it from the chance-driven works of Cage is a sense of irony and bitterness, achieved through a symbiosis, or rather parasitism, of carefully built structures and alea-based performances; while Cage's works most often use chance procedures both to construct the work *and* perform it. The apathy and negativity found in *Per Orchestra* and *Etwas* both originate from Donatoni's pessimistic reception of indeterminism. Cage's affirmative liberation of pitches from the Second Viennese School of serialism became a suffocating silence in Donatoni's hands, and he conceded that the attraction for the American composer was in his processes of

“negation of form, determinism, consciousness, finality, and the individual creator” (*Sigaro*, 121).

The link between the two works analyzed in this dissertation also stems from the loss of personal will and conscience. The inability to create is at the heart of Donatoni’s negativity. In *Per Orchestra* there is a total absence of development, and the presence of pitch material is reduced *ad absurdum* through chaos. In *Etwas*, all rhythms, pitches, and processes are bound to the Schoenberg Text. In both cases, there is an attempt at destroying any sort of personal attachment.

The open forms, graphic symbols, and freedom granted to the players of *Per Orchestra* have been abandoned by *Etwas*, yet the two sound remarkably similar. Although *Etwas* has a clear structure delineated by different sections and sound density, the lack of expression, drama, or events makes the piece sound aimless and static. Speaking of *Etwas* and *Souvenir*, Donatoni emphasized their paradox, “They are works written integrally but at the same time not different from those I haven’t written. I mean to say that they avoid all formal preoccupation, and the fact that the score establishes notes in all parameters doesn’t signify a conscious organization compared to works of approximate establishment [indeterminacy]” (*Sigaro*, 110).

Again referring to *Questo*, Donatoni lists seven methods of transformation (see Chapter Three, figures 4-8) used in creating *Etwas*. Yet practically all the same processes – intervallic transposition, symmetrical inversion, extension of sequences through symmetrical axes, and verticalization of horizontal motives or vice versa – occur in *Per Orchestra*.

Even the titles of both works posit them in the realm of Adornian negative dialectics: *Per Orchestra*, with its meaningless title, and its paradoxical Kafkian epigram of silence and sound; and *Etwas ruhiger im Ausdruck*, connoting lack of expression and lifelessness. Its title, like the music itself, is derived, not invented.

This issue of derivation, which Piencikowski argues as problematic (see Chapter Three), was noted by Donatoni in a 1969 interview with Gioacchino Lanza Tomasi. Note that Donatoni acknowledges an inevitable correlation between *Etwas* and indeterminacy:

You have classified *Etwas ruhiger im Ausdruck* with the *Diabelli Variations* of Beethoven, a true observation regarding the indifference toward the material, except that . . . that the aggression toward the Diabelli theme is essentially positive, elevating its language, while my aggression toward the Schoenberg theme is intended toward its degradation. The indeterminism in *Etwas ruhiger im Ausdruck* exists in spite of its graphic determinism. (*Sigaro*, 111)

It is notable that while Darmstadt and the Neue Musik took Webern as their mascot, it was Schoenberg (whom Adorno spoke of so often) whom Donatoni adopted as his twelve-tone figurehead. Donatoni himself conceded that he was not generally an avid reader (*Sigaro*, 117), yet from all sources we know of his voracious appetite for Adorno, Kafka, Musil, Kleist, Hegel, and Nietzsche; authors who share similar tendencies of negativity and self-immolation.

Yet it was Adorno, a post-war figure one generation removed from Donatoni, who made the greatest impact on him. We can trace Donatoni's negative period directly to Adorno's claim that music's revolutionary contribution is a function of its critical negativity:

The extraordinarily violent protest which such music confronts in the present society . . . appears nonetheless to suggest that the dialectical function of this music can be felt in praxis, if only merely negatively, as "destruction".¹

¹ Adorno, T.W. "Zur gesellschaftlichen Lage der Musik," part I (1932), p. 104, cit. in Buck-Morss, Susan, *The Origin of Negative Dialectics: Theodor W. Adorno, Walter Benjamin, and the Frankfurt Institute*, The Free Press 1977.

Adorno's admiration for Schoenberg may well have influenced Donatoni's decisions to negate the presence of a subjective Creator/Ego, and to destroy classical form. Adorno labeled Stravinsky and Hindemith, proponents of the *neue Sachlichkeit* (New Objectivity), as guilty of an unhistorical treatment of material in their assertion that the objectivity of musical forms enabled their use in any historical era. When the artist had free access to all musical forms, past and present, the actual choice became a matter of subjective arbitrariness.

As in fascism where a "leadership elite," namely the monopoly capitalists, rule over the social "organism," so the sovereign composer rules freely over the so-called musical organism; when to introduce a dissonance, when a suspended note is to be resolved, is decided neither by a pre-arranged schema . . . nor by the immanence of the structure . . . but instead solely by the will, namely the "taste" of the composer. (*Ibid*, 116)

Schoenberg however was not guilty. He avoided this undialectical imposition of the will of the composer on his material. His individualism was not arbitrary because it was controlled by the demands of the material itself. The form of his music was truly objective, not forced on the material from the outside but drawn out from within it . . . (*Ibid*, 11)

Adorno's comments lie at the heart of Donatoni's musical philosophy throughout his negative period, spanning both the works of indeterminacy and the automatisms/processes. Through Adornian lenses, Schoenberg freed himself from the constraints of subjectivity by allowing the "demands of the material" to chart its own route.

Nevertheless, both Adorno and Donatoni later became disillusioned by this austere, unrelenting praxis. Adorno criticized the twelve-tone method for becoming dogma, while its principles (retrograde, inversion, etc.) rendered the dynamic principle of variation static by falling back into a predictable and closed structure. In the Mexican review *Nuestra Musica* (1949 and 1952), Schoenberg himself was critical of

the tendency to dogmatize the atonality that emerged in the serial compositions produced after the war.

As Donatoni began relaxing the extremes of indeterminism and hyperdeterminism in the late 1970s, he evolved into what would become his most creative, positive, and mature style. Still, his link to Adorno remained; Donatoni and Schoenberg worked neither as "blind craftsmen" nor with the "arbitrariness and optional choice of a subjectively unrestrained artist" (Buck-Morss, 129). While introducing subjectivity into his scores, Donatoni retained elements of the earlier extremes, creating music of inventive brilliance with carefully crafted artisanal workmanship.

APPENDIX

This appendix consists of translations of the performance notes for *Per Orchestra*. The score consists of 28 pages of music and 31 pages of text. The performance notes almost always go beyond simply explaining nonstandard notation. They are rules for each panel's "game," and significantly affect the outcome. Each panel has lengthy instructions for both the director and the orchestra. *Per Orchestra* creates a great deal of impact through its visual theatricality, and the director's role should be puppet-like. He is at the "mercy" of the orchestra, both musically and theatrically. Players and director are given musical and theatrical directions throughout the work in order to achieve a musical world contrary to the classical conception of power roles in the orchestra.

Orchestration

4 fl
4 cl in b-flat
4 trumpet in b-flat
4 hrm
3 trb
1 ctb trb

Organ

Percussion

Timpani (three with pedals)

I – 4 bongos (from small to large), small triangle, small suspended cymbal, tam-tam (small)

II – 4 temple blocks (small to large), medium triangle, medium suspended cymbal, medium tam

III – bass drum, large triangle, large suspended cymbal, large tam-tam, bells (any that are available, in a chromatic succession – to be shared with timpanist)

30 violins:

I – 3 stands
II – 3 “
III – 3”
IV – 3”
V - 3”

12 violas:

I – 3 stands
II – 3 stands

8 cellos:

I – 2 stands
II – 2 “

8 basses:

I – 2 stands
II – 2 “

Translation of preliminary notes for *Per Orchestra*

1. Gestures, of attack and conclusion (of the conductor) – unless indicated otherwise, always must have the characteristic of an invitation to play or an invitation to conclude. Therefore the individual decision of the player prevails on the collective obedience.
2. It is suggested that the conductor count mentally the duration of sections indicated in seconds at the top of the score. That is to say, avoid the use of a clock.
3. In lack of further clarifications, the performance does not have continuity between one page and another. The brief pause will be determined only by a new movement, that is, by a new position by the conductor.
4. The graphic symbol must agree only with the visual example of the method of playing and not with the music to be performed.
5. The musical interpretation must be suggested by a principle of maximum aperiodicity (unless otherwise indicated) during durations and pauses; the intermittence of the staccato must be as variable and irregular as possible. This will be suggested (or not) by the special layout of the graphic symbols.
6. The performance length is independent of the notational space: one performs therefore (unless otherwise indicated) with continuous refrain, within the limits of the prescribed duration and according to the manner of the performance indications.
7. The area of frequency (extension) within which the performance is indicated from time to time at the beginning of each page.

8. By *continual movement* (flutes, clarinets, trumpets, horns) it is intended: quickly depress keys on the instrument (or pistons, cylinders, nails, etc.) in the most disorderly way possible, in complete independence from the act of emission. Each continuous movement is limited to an area of frequencies indicated only for the trumpets and horns, while the flutes and clarinets are free to the entire extension of their instrument: in both cases it's a matter of acting on all the available positions and moreover on half and false positions, having as a goal the maximum indetermination of sound.

The *continuous movement* on the flute mechanism does that which the chosen dynamic determines the register in which the performance will occur (a dynamic crescendo will correspond an ascending movement in the emitting frequencies). In terms of the clarinet, keep in mind to extend the disordered movement also to the head voice. It is necessary that the instrumentalist act in the most creative, arbitrary, interpretive way, in an improvisatory style, while not disdaining any technical initiative.

9. *Continuous smanicamento*: (strings) an uninterrupted movement (ascending or descending, with or without the fingering) of the left hand on the neck, with variable amplitude and velocity.

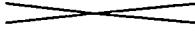
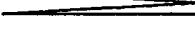
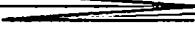
10. *Continuous glissando*: (strings, trombones, organ, timpani) an uninterrupted emission of sound fluctuating within the range indicated.

11. For trombones, the *continuous glissando* must be understood as a disordered and irregular movement of the coulisse, with variable amplitudes and velocities, without any reference to the positions of tempered sounds.

12. The *fluctuating sound* consists of the most irregular oscillation possible around the written pitch: variable amplitude, not to reach in any case a semitone higher or lower.

13. *Concise rhythm* or *ribattuto*: A very fast succession of sounds, in irregular, intermittent groups, which can assume three forms: A succession of points, a succession of lines, or an alternating succession of points and lines (point = staccato sound; line = briefly tenuto sound).

14. Dynamic Symbols:

	Continual hairpin: variable amplitude and aperiodic duration
	Continual hairpin: continuous or fixed dynamic
	Arbitrary hairpin (crescendo or diminuendo)
	Arbitrary hairpin or fixed dynamic

15. The organist almost always uses the *glissatori* [little blocks of wood, covered in velvet] for the production of supported *appoggiati* or glissando clusters. Each of the

objects (property of the author) is constructed in three dimensions: small, medium, and large. Aldo Clementi suggested the mechanical solution to the production of clusters in motion.

16. The *continuous registration* (organ) is entrusted exclusively to the participation of the registers (two players) and must be understood as a quick connection and disconnection of registers, according to the method of registration sometimes suggested, *but without a solution to the continuity of sound production*.

17. The manual indication are only placed as a reference: the indication I and II, for example is posted only to suggest the performance method on two different manuals – the choice is left up to the interpreter – according to the characteristics of the organ, the number of manuals, and the available registers.

18. The score is completed in two versions, which shall be played in the same concert in a symmetrical position in respect to the order of the established program. The performance of only one version is only one of the possible arbitrary decisions.

TRANSLATION OF VERSION I, PANEL 1

DIRECTOR – Vigorous and alternate movement of arms, uncontrolled intermittency. From high to low; the palm in vertical position; the angle of the arm is variable; minimum 0°, maximum 180°. Authoritative and unpredictable behavior. Concluding in an erect and rigid position.

PERFORMANCE RULES – The player plays only when he finds (or believes to find) himself in the exact longitude of the conductor's gesture; in each case he chooses at his whim one of the five sections, and plays it as fast as possible.

= ornament played as fast as possible

= note *appoggiata*;

= briefly held note

The permutation of the five sections is left to the arbitrary decision of the individual. When the director becomes immobile, every player restarts from the point in which he was interrupted and plays until the end. The intermittence between one section and another is left to the discretion of the individual player.

ORGAN – Performance on 2 manuals. Undulating, continuous glissando, within the

indicated space, small glissatori, muted performance.

Pedals: two or three note clusters (transverse position: right foot, black keys; left foot, white keys) within the space indicated. . ([Figure of slashed eighth-note] = staccato rapidissimo; [fig. of stem with dash above it] = nota appoggiata; [fig. of eighth-note with extended horizontal beam] = briefly held note; The marked arrow indicates the simultaneous dampening of the sound.

Registers – two manuals: participation according to the method indicated in the Rules for Performance. Staccati of registers till *anima* 8', according to the rhythmic model. (Staccato refers to a rapid fusion or immediate diffusion of the same register). In the case of performance on the mechanical organ, one may partially trigger the registers: the held notes may avail themselves to a gradual diffusion.

TIMPANO: Uninterrupted series of attacks with fingernails on the drumhead.

TRANSLATION OF VERSION I, PANEL 2

DIRECTOR – At the end of the preceding page, a very slow motion of the hands, vertically from low to high (13 seconds); short period of immobility (3"), then the same movement from high to low (13").

Duration: 29"

PERFORMANCE RULES

WINDS AND BRASS: The moment of attack is left to individual decision, within the limits of the anticipated tempo from the ascending gesture of the conductor. The pitches in columns are given as a source for choice: the instrumentalist decides the order of their succession. They are played using one of the four rhythmic models, and only one time. The metronomic space is indicated and determined individually (the unit of the measure is unknown).

The performance is repeated in time with the descending gesture of the conductor: one should find a new choice in the pitch order and rhythmic model in conjunction with the metronome marking. *Legato or staccato performance.*

PERCUSSION: performance of the indicated figure within the limits of the tempo given by the director's ascending gesture. The performance is repeated in time with the conductor's descending gesture.

TIMPANI: A,C: staccato with glissandi (choice of ascending or descending); B; fluctuating roll. A,B,C are liberally interchangeable.

PERC. 1 (bongos): may be interpreted in several ways.

PERC. 2 (temple-blocks) may be interpreted in several ways.

PERC. 3 (tam-tam): short movements on the rim, as if sharpening a blade.

STRINGS; *smanicamento* within the space indicated, very slowly and uninterrupted for the entire duration of the ascending gesture of the conductor. Play, choosing one of the six rhythmic models, and only once. The moment of attack is left to individual decision (for viola 1, the *smanicamento* is continuous, within the indicated space). The performance is repeated with the descending gesture of the conductor: search for a way to work with a new rhythmic model.

TRANSLATION OF VERSION I, PANEL 3

CONDUCTOR – Arms held out front, horizontal and parallel, rigid. The arm placement corresponds to the moment of attack of the orchestral section within the range of the arm movement. Rotation of the bust (or the entire body), of variable size and velocity; alternation of held positions and semicircular movements toward the orchestra; maximum variability in the angle of the arms (from the first position to 180 degrees). Conclusion: Place arms one on top of the other, folding them.

RULES FOR PERFORMANCE - The section at the left of the page (found above in the individual parts) indicates the fixed intonation or fluctuation in each instrument, for the entire duration of the performance according to the gesture indicated ahead. The numbered sections constitute the models for the performance behavior. Each section is *arbitrarily permutable* and each of them *must be performed in continual repetition*. The performer intervenes – according to the extemporaneously chosen model – only when one finds himself within the section included in the director's gesture, and for the entire time that such a situation continues to take place. During an intervention one must play only a single model.

Intonation:

FLUTES - The boxed notes invite a choice of a single pitch for the entire duration of an intervention [participation].

CLARINETS – Continuous movement.

TRUMPETS – Continuous movement, within the range indicated.

HORNS – 1,3: The boxed notes invite a choice of a single pitch for the entire duration of an intervention [participation]. 2,4: Continuous movement, within the range indicated.

TROMBONES - The boxed notes invite a choice of a single pitch for *the entire duration of an intervention*.

STRINGS - Individual intonation: the first parts of every orchestral section have an indicated range, within which one functions with a continuous *smanicamento*; the others play a single pitch, which must fluctuate for the duration of each intervention.

NUMBERED SECTIONS

- | | |
|------------|---|
| 1 - WINDS: | held fluctuating pitch, or uninterrupted pitch with continuous movement; |
| STRINGS: | ornamental group. |
| 2 - WINDS: | concise <i>frullato</i> rhythm (lines of the briefest duration); |
| STRINGS: | concise <i>ribattuto</i> (simple points or double points). |
| 3 - WINDS: | held fluctuating pitches of short duration and staccato, intoned pitches; or: uninterrupted note with continuous movement, of brief duration , and staccato notes with continuous movement. |
| STRINGS: | concise <i>ribattuto</i> (multiple points). |
| 4 - WINDS: | concise rhythm (multiple points); |
| STRINGS: | staccato note, held pitch of short duration and two rapid staccato notes. |
| 5 - WINDS: | ornamental group; |
| STRINGS: | continuous trill with adjacent fingers (indeterminate pitches). |
| 6 - WINDS: | ornamental group; |
| STRINGS: | concise <i>ribattuto tremolato</i> (lines of the briefest duration). |
| 7 - WINDS: | ornamental group; |
| STRINGS: | held pitch, non vibrato. |

TRANSLATION OF VERSION I, PANEL 4

CONDUCTOR – 14 descending movements, vertically; duration of each movement: 3"; return to position, rapidly “like an upbeat”.
Duration 42”

RULES FOR PERFORMANCE – The performance of every numbered measure (as fast as possible) must occur during the time used by the director to complete the

descending vertical movement (3''), but may also not occur at all: in each case the omitted measure will be executed during the following movement, and likewise for the following movements. The delay in performance is possible within a minimum of one measure and a maximum of five measures. The performance of measure 14 is obligatory for all. The performance of the rhythmic models may be legato or staccato.

FLUTES AND CLARINETS - the stacked pitches offer a choice: the player decides the order of their succession, according to the rhythmic model.

Measure 14: rhythmic model with continuous movement.

TRUMPETS AND HORNS – the stacked pitches offer a choice: the player decides the order of their succession, according to the rhythmic model.

Measure 14: rhythmic model with continuous movement, indicated range.

TROMBONES – The stacked notes offer a choice: the player decides the order of their succession, according to the rhythmic model.

Measure n. 14: continuous glissando of the coulisse within the indicated range; independent emission, according to the rhythmic model and within any reference to the position of tempered pitches.

ORGAN – Performance on two manuals; mid-size *glissatori* within the indicated space, very short glissandos.

Pedals: horizontal position, clusters of two or three notes, within the indicated space: very short glissandos.

Measure 14: big glissandos, short and convergent glissandos, within the indicated space.

Registers: two manuals, fixed register with an 8' bordone (or similar); pedal, one union with the manuals. During the performance of each measure the registers intervene with only one staccato of one or more registers of 8' or 4', on both manuals.

TIMPANI – Performance with metal mallets (or wood).

PERCUSSION (1,2,3) – Short scratches on the border of the tam-tam (toward the right and left), as if sharpening a blade.

STRINGS – Continuous *smanicamento* within the indicated space and in relation with the rhythmic model.

Measure 14: Continuous *smanicamento* within the total extension of the indicated chord (or on the fine tuners).

TRANSLATION OF VERSION I, PANEL 5

CONDUCTOR – Right arm held up vertically: describe in space a circumference with variable velocity (minimum 1''; maximum 13''), according to the movement of a clock. It is advised that for the reverse motion, the same method be used, beginning

from the initial position. Alternate arbitrarily the opposing directions [clockwise and counterclockwise].

RULES FOR PERFORMANCE – The space contained within the vertical sections corresponds to the duration of one circumference. Individual execution of every figure during the tempo used by the conductor to describe *one* circumference. The held sounds, trills, and *tremolati* may have a *total or partial duration of the circumference*. Continuous repetition. Counterclockwise movement of the arm signifies: repetition of the last figure (or pause) played in a retrograde fashion.

FLUTES AND CLARINETS – The stacked notes offer a choice of one pitch, for the *entire duration of the circumference*. Performance may be either a *held* sound or *staccato*. The limits of the arbitrary hairpin dynamics are between *p* and *f*.

- a. Intoned performance;
- b. Continuous movement within the indicated range: uninterrupted emission or staccato.

TRUMPETS AND HORNS - [See flutes and clarinets]

TROMBONES - [See flutes and clarinets]

- a. Intoned performance;
- b. Continuous glissando of the *coulisse* within the indicated range; staccato emission without any reference to positions of tempered pitches.

ORGAN – Performance on two manuals. Undulation of the fist within the indicated range. Registers – I: fixed registration with 8' bordone. One staccato of *ripieno* or a regal 8' or 4', during the performance and within the space of a single circumference. II: fixed registration with 8' bordone. One staccato of 8' or 16' reed or registers *ad anima* 8' or 16', during the performance and within the space of a single circumference.

TIMPANI – Performance of either staccato or tenuto sounds:

- a. Fixed intonation;
- b. Continuous glissando within the range indicate (roll or staccato).

PERCUSSION – The columned notes offer a choice of a single pitch for the entire duration of a circumference. Alternate tremolo and staccato among the various indicated instruments.

STRINGS – When the range of the glissando or the *smanicamento* is not indicated, the intention is: complete extension of the string. The performance of the rhythmic models must be absolutely independent of the *smanicamento*; the trills must always be played with adjacent fingers (indeterminate intonation).

TRANSLATION OF VERSION I, PANEL 6

1. Translation of Introductory Text

DIRECTOR – The director invites performance of the numbered sections, 1 to 6: the gestures are traditional, as to indicate as many bars to which number 1 is the unit of movement.

- Ex. 1 = one measure in one movement
- 2 = one measure in two movements
- 3 = one measure in three movements
- Etc.

The sections are exchangeable and therefore the succession of numbered movements may be left to the extemporary and arbitrary decision of the conductor.

It is rather important that the speed of the arm movements is variable from one attack to another; at the conclusion of each attack the hand should remain suspended until the successive attack. The fall of the hand is an invitation to end (individually) the performance.

The intermittency of attacks should be variable; it should be contained within a reasonable timeframe (from 3" to 13", for example). The left hand describes unpredictable semicircles, from high to low (of a duration not less than 3" and not greater than 7"); each gesture shall invite performance from the section posted at the center of the score (A or B) by *all those who are not already playing one of the numbered sections*. The hands must act independently and without any premeditation; the gestures must be visibly differentiated, as if agreed upon for the purposes of an artificial unpredictability. Duration: 85" (1'25")

FLUTES

- 1 – fluctuating held note or staccato: permutable;
- 2 - two groups of permutable staccato notes
- 3 - two held notes;
 - A - continuous movement, uninterrupted flutter-tongue
 - B - double staccato with continuous movement;
- 4 - group of permutable staccato notes
- 5 - held note;
- 6 - pause.

CLARINETS

- 1 – fluctuating held note or staccato: permutable;
- 2 - pause;
- 3 - two held notes;
 - A - continuous movement, uninterrupted flutter-tongue
 - B - double staccato with continuous movement;
- 4 - pause;

- 5 - fluctuating held note;
 6- pause.

TRUMPETS

- 1 - fluctuating, held note or staccato: permutable;
 2 - fluctuating held note;
 3 - pause;
 A - continuous movement within indicated range, uninterrupted emission;
 B - staccato with continuous movement, within indicated range;
 4 - staccato note;
 5 - pause;
 6 - pause.

HORNS

- 1 - fluctuating held note or staccato: permutable;
 2 - permutable group of staccato notes;
 3 - permutable group of staccato notes;
 4 - two fluctuating held notes;
 5 - group of permutable staccato notes;
 6 - pause.

TROMBONES

- 1 - fluctuating held note or staccato: permutable;
 2 - fluctuating held note;
 3 - two groups of staccati notes: staccato emission with glissando (non-phased intonation);
 A - held note with continual, descending, fluctuation; 4th trombone: fluctuating, held note;
 B - attacks of the palm of the hand on mouthpiece;
 4 - two fluctuating notes;
 5 - staccato note (1st and 4th); staccato note with portamento (2nd and 3rd);
 6 - pause.

ORGAN

- 1 - Execution on two manuals. Small *glissatori*: pulse articulation with alternating movements on black and white keys; nervous and uncontrolled movements, mobility of the arms - like a continuous glissando - within the indicated range. (The written example is one of the possible interpretations). The arrows indicate dampening of sound. Registers: continuous registration on *all 8'* registers, one by one;
 2 - pause;
 3 - pause;

A - execution on two manuals. Small *glissatori*: brief divergent glissandi, within the indicated range; very fast movements, nervous

and uncontrolled. Pedal: clusters of two or three notes, disordered *ribattuti* within indicated range. Registers: manuals: continuous registration on *all* available registers, two at a time (excluding *ripieni*); pedal: continuous registration on all 16' registers, one by one;

B - moderately fast movement - divergence of two small *glissatori* on two manuals, like a *glissato muto*. Double staccato: arbitrary attack during the divergent movement. Pedal: undulating movement, arbitrary staccato during the movement. Registers: manuals: [see A].

4 - pause;

5 - pause;

6 - execution on two manuals. Continuous and permutable succession of the indicated notes; legatissimo and tenuto as much as possible; as fast as possible. Registration: manuals: continuous registration, rapid and intermittent staccati of *all* available registers, one by one, with fixed registration (weak bass 8'); pedal: continuous registration, rapid and intermittent staccati of 16' registers, one by one. (Mechanical organ: staccati with partial connection).

TIMPANI

1 - pause;

2 - fluctuating roll within indicated range;

3 - pause:

A - fluctuating roll;

B - ornamental group with continuous glissando;

4 - pause;

5 - fluctuating roll;

6 - pause.

PERCUSSION (1,2,3)

1 - pause;

2 - pause;

3 - suspended cymbals; roll on bells;

A - 1. Brief, intermittent rolls; 2. Fast glissandi on the top border of the temple-block, like a guiro; 3. Brief intermittent rolls;

B - 1. Distanced groups; 2. Distanced groups; 3. Double distanced staccati;

4 - tremolo on the border;

5 - pause;

6 - pause.

STRINGS - The permutation and fluctuation of sounds are indicated. The trills must be played with adjacent fingers (indeterminate intonation). The range of continuous *smanicamento* is indicated; the intermittence of the figures composed of held sounds, staccati, glissati, trills, and tremolos is left to the arbitrary decision of the player.

Violins - A) arpeggio or arpeggio tremolato on four strings sul ponticello; B) *ribattuti* groups on the tuning pegs. **Violas** - A) concise *ribattutto* of pizzicato on four strings, sul ponticello; B) pizzicato arpeggiato on four strings, sul ponticello. **Cellos** - A) continuous *smanicamento* on entire extension of instruments with the *capotasto* in *barré* position. **Basses** - A) arpeggio or arpeggio tremolato on four strings, sul ponticello; B) legno battuto on the tuning pegs.

TRANSLATION OF VERSION I, PANEL 7

1. Translation of text.

DIRECTOR - Invites to play with a circular gesture of the right arm. The movements must be spiral, with a velocity directly proportional to the height of the gesture: they may be interrupted with improvised *allargamenti* and *stringendi*. Therefore:

- a. Uniformly accelerating motion of the arm
- b. Uniformly decelerating motion of the arm
- c. Minimum-maximum variability in the acceleration of motion.
- d. Minimum-maximum variability in the deceleration of motion

Invitation to conclude.

Duration of spiral movements: 67" (1' 7")

RULES OF EXECUTION - The circular gesture of the director invites execution (the moment of attack is decided individually). The written part is solely a model of behavior that allows the maximum liberty and independence to the individual initiative. The durations are suggested by the variable quantity of visual stimulus; the pauses are variable but also subject to the dilations and contractions in the director's

gesture. *The performance is a ritornello continuo.* Interpretation should be as nervous as possible: as fast as possible: recitation, breathless, prelude-like, and murmuring. Invitation to conclude: every instrument delays the pauses in their part, progressively up to a maximum of 5" and until the exhaustion of their part. Every player then emits an aspirated, aphonic "A", with a throat attack, of a periodic and intermittent periodicity, like a sonorous respiration. The collective vocal articulation ends with the exhaustion of the last orchestral part.

FLUTES- continuous movement, intermittent emission according to the indicated duration.

CLARINETS - [Same as flutes]

TRUMPETS - Continuous movement within the space indicated, intermittent emission according to indicated duration.

HORNS - [Same as trumpets]

TROMBONES - 1st, 2nd: continuous glissandi within the space indicated, intermittent emission according to indicated duration. 3rd, 4th: short fading glissandi, alternating ascending and descending, approaching a semitone but avoiding positions of tempered pitches: within the indicated space.

ORGAN - 2 manuals. Manuals: right hand, *glissatori piccoli*, staccato clusters, *ribattuti*, *glissati* and *ribattuti glissati* within the indicated space. Left hand: *glissatori grandi*, staccato clusters, *ribattuti*, *glissati* and *ribattuti glissati* within the indicated space. Pedals: Clusters with two or three black or white notes, within indicated space; staccato or glissando.

Every group delineated by dotted lines must be played as fast as possible, the pauses being only between groups. The amplitude and velocity of the glissandi is variable. *The gesture of the director influences the pauses, not the tempo within the groups.*

Registers: Stopped registers on both manuals (18', fixed registration); continual registration - *Lenta* - on reeds 16', 8', 4' and ripieni. Pedal: fixed registration with stopped 16'.

TIMPANI - continual rolled glissandi on the first and second drums; the dotted line indicate a glissando (pedaling without rolling) on the same drum.

PERCUSSION - 1. Beat with fingers, alternating on two or four drums. 2. Small groups, as fast as possible. 3. Bass drum in horizontal position: use a large suspended cymbal as a mallet:

- a. Staccato attack and suffocate with the periphery of the cymbal.
- b. Double or triple articulations, as fast as possible, obtained through rotation of the wrist, striking the skins with opposing borders of the cymbal.
- c. Irregular scratching (circular motion) of the cymbal on the drum skin.

STRINGS - *violins and violas* - Guitar position, *barré* across the fourth strings (1st finger), *rasgueados* obtained by a nail brush; right hand independently of left hand sweeps the *barré* over the entire extension of the instrument. The intermittency of events is according to the distance of the symbol and the velocity and amplitude of the director's movements.

- Violin 1 - Simple Rasgueados* (on finger board)
- 2 - Beating the brush on the strings (in the center)
 - 3 - Double *Rasgueados*, as fast as possible (on finger board)
 - 4 - Triple *Rasgueados*, as fast as possible (on finger board)
 - 5 - *Tremoli glissati* (on finger board), durations; horizontal segments
- Violas 1* - [Same as Vln.5]
- Violas 2* - [Same as Vln.4]
- Cellos and Basses* - Continuous sweeping of *barré* across the fourth string; rasgueados obtained with a rough brush used as a bow.
- Cello 1* - [See Vln.3]
- Cello 2* - [See Vln.1]
- Bass 1* - [See Vln.2]
- Bass 2* - Beating the brush on the fingerboard, possibly making the strings rebound of the wood.

TRANSLATION OF VERSION I, PANEL 8

DIRECTOR - The preceding vocal articulation should be interrupted at the final instrumental part; the interruption being determined by a gesture that offers a new attack, to which respond the winds, trombones, organ, and strings. The trumpets and horns require another attack (simply with a gesture-invitation); the sound must be extinguished on the fermatas together without diminuendo. The duration of interruptions between one verse and another of the choral is left to the director's discretion: he can count between 3 and 7 with a metronome mark between 40 and 60 (but can also choose another system - it is only necessary that the duration not be periodic).

Execution and direction continually repeated. Invitation to conclude, individually and without haste.

Duration 76" (1' 16")

RULES OF EXECUTION - Execution continually repeated on the initial attack. Independent attacks for trumpets and horns. Giddy execution as fast as possible. Conclude at the invitation of the director.

FLUTES AND CLARINETS - Play only with the fingers, repeatedly, as fast as possible. Absolute independence of the lips and hands: agitated and asthmatic emission, aperiodic intermittency, short and very short durations, always irregular. Fixed dynamic or arbitrary hairpins within the limits of *pp* and *ff*. *Do not control the coincidence of emission with the action of the fingers on the keys*. The horizontal bars over the notation indicate the behavior of the pitch, but represent a graphical reference that doesn't have to coincide with the musical notation and doesn't have to be read.

TROMBONES AND HORMS - Half valve *ff* and legato as possible. Horns must adjust the fourth cylinder. Each player chooses a metronome marking between 40 and

60; and can make it constant or fluctuating. The performance of the verses may occur in the order given in the score (but in any case, repeating continually) or not; in the second case the continual permutation of the verses is left to the discretion of the player, who may choose again at any time, without premeditation. "Tonal" execution, notes of equal rhythmic value, according to the metronome marking; prolongation until the fermata of the last pitch in each verse, concluding together; attacks and conclusions decided by the director.

TROMBONES - Continual glissando within the indicated range; emissions interrupted only for breaths, filling over as much as possible. Continual limit of hairpins: *p* and *f*.

ORGAN - Execution on two manuals. Right hand: small *glissatore*; staccati, ribattuti and very fast, short glissandi within the indicated range. Left hand: medium *glissatore*, used with pulsed articulation on the black on white keys, alternatively (ribattuto, tenuto, glissato). The open ties indicate held pitches; the vertical lines indicate simultaneities and extinguishing of attack. Pedal: undulation within indicated range, transverse position. *Giddy execution, brief and variable interruptions in coincidence with the fermata.*

STRINGS - Giddy movements with virtuosic character - at half bow - like very rapid *quartine* on the string; alternation of rapid movements and long bows, always irregular. The small open ties indicate held notes (very short). *Irregular continuous shifting of the bow on all four strings*. Independent *Smanicamento* in the left hand over the entire extension of the instrument; *barré* from the first to fourth string. *Violins and violas must place the thumb of the left hand on the opposite side of the neck (to the right of the player) and obtain the barré resting the first finger on the fourth string (across and toward the half position of the first chord)*. Hairpin limit: *pp* and *ff*.

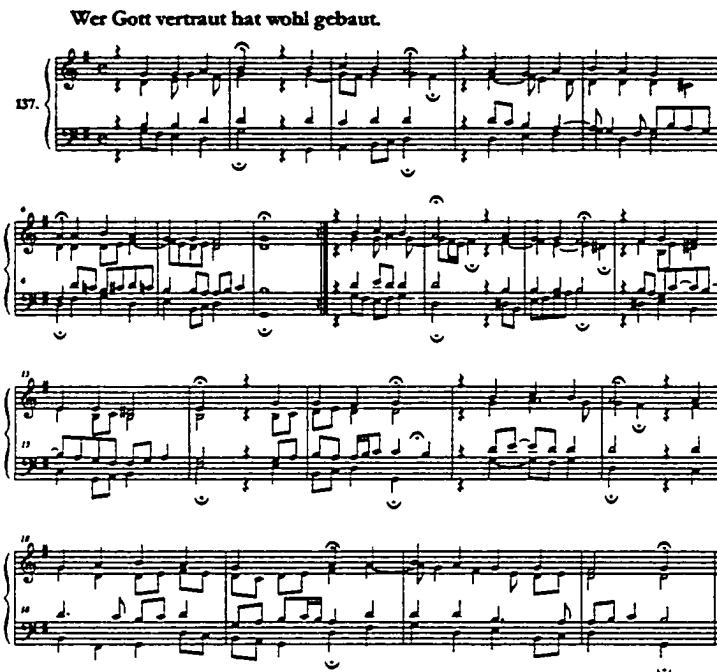


Figure A. 1 Bach choral used in Version I, Panel 8 and Version II, Panel 5

TRANSLATION OF VERSION I, PANEL 9

DIRECTOR - At the conclusion of the previous section, a sudden, authoritative attack with the arms held out in front, horizontal, with palms joined. Slow divergence with uniform velocity: spacious widening of the rigid arms; conclusion of the movement in the position of a cross, with sudden separation as if executing a tug. Long pause at the fermata. Duration of the movement: 31"

PERFORMANCE INSTRUCTIONS - The closed section in rectangles at the left of the page indicate the model of performance action (deceleration, acceleration, decrescendo from *ff* to *pp*). The performance ends with crossed gesture of the director, *but may end before*: in any case, it will finish with the grace note added at the end of the page, *in accordance or not* with the tugging gesture of the director, who separates his arms at the end of the movement.

FLUTES, CLARINETS, TRUMPETS, HORMS - Arbitrarily mutable permutations:

1. Continuous movement, (not uniformly rapid) with uninterrupted emissions of short duration (4" circa).
2. Continuous movement (very rapid) with flutter tongue emission, uninterrupted for very short durations (1-2").
3. Staccato with continuous movement.

The deceleration considers only the growing range of the pauses between the model played and the successive. Initial pitch: as high as possible.

TROMBONI - Variable deceleration of staccato notes; initial pitch: as high as possible. Continuous and uniform movement of the *coulisse* in all the lower harmonic positions; emissions don't coincide with the positions of tempered pitches.

ORGANO - Execution on two manuals.

TIMPANI - Variable deceleration of staccato notes; initial pitch: as high as possible; descending glissando on three drums.

PERCUSSION -

1. Variable deceleration of staccato attacks on four drums.
2. Variable deceleration of staccato attacks on four drums.
3. Variable deceleration of staccato attacks.

During the final fermata, the three percussionists quickly take position next to the bells.

ARCHI - Variable deceleration of staccato notes; initial pitch: as high as possible; descending *smanicamento* on four strings, attack on intermediate positions, without any reference to tempered pitches. (Beginning of the *smanicamento* should be as high as possible on every string.)

TRANSLATION OF VERSION I, PANEL 10

DIRECTOR - Authoritative attack for the bells. Begin counting from 1 to 39, in correspondence to the attack of the organ, according to a metronome marking between 60 and 120.

FLUTES, CLARINETS, TRUMPETS, HORNS, TROMBONES - Spoken solfeggio: *it is necessary to dictate the name of the accidental*; individual metronomic velocity between 60 and 120; murmuring emission, almost aphonic, in the mother language of the player, immediately after the bell players. *Trumpets*: during the solfeggio, unscrew the top parts of the pistons. *Horns*: during the solfeggio, remove the mouthpiece.

ORGAN - Execution on two manuals. Large *glissatori*: alternating, concise rhythm (points) variably interrupted (by the right hand); continuous glissando within the indicated range: the motion should be parallel and the *glissatori* be in the same position as the manuals. *Registers*: Tutti (general union of manuals): disconnect registers one by one, beginning with ripieni and the reeds successively, the 32', 16', and the high changes. The other 8', 4', 2', and 1' should be left connected.

PERCUSSION - All the available bells, arranged in chromatic succession. Choices for the players: total cluster, for every player, *violentissima*, let vibrate. Or: let the tubes collide against each other, two or three times, with the maximum violence and allow to oscillate. Or: total cluster with metal bars (let vibrate).

Just as soon as the players leave the bells and quickly arrive at their respective positions, playing the suspended cymbals and tam-tam according to the numeration attributed to each one, counting mentally at a metronome marking chosen individually between 60 and 120.

STRINGS - Spoken solfeggio: *it is necessary to dictate the name of the accidental*; individual metronomic velocity between 60 and 120; murmuring emission, almost aphonic, in the mother language of the player, immediately after the bell players.

TRANSLATION OF VERSION I, PANEL 11

DIRECTOR - Attack only for organ, in correspondence with number 40: the counting's metronome mark can change, choosing another number between 60 and 120. The orchestra attacks freely, finished with the solfeggio of the previous page; the percussion continues to count. Invite to conclude at number 78.

PERFORMANCE RULES - Begin immediately after the solfeggio of the preceding page and wait to conclude at the invitation of the director. Performance is with continuous repetition. Organ and percussion are excluded from these rules (see below).

FLUTES - Violent percussion-like attacks on the two keys indicated, alternating; groups of 1 to 5 fast *ribattuti* with variable intermittence.

CLARINETS - Continuous movement: brief or very brief durations, like ornamental groups, monosyllabic, extremely nervous playing.

TRUMPETS - Concise *ribattuti* variably interrupted with partially unscrewed pistons: violently percussive.

HORNS - Flutter tongue with upside-down mouthpiece, variable duration and intermittency, dynamics and hairpins arbitrarily undetermined.

TROMBONES - Simple or double strikes with variable intermittency: violent percussive attack with the palm of the hand on the mouthpiece.

ORGANO - Execution on two manuals. Attack with director. Large *glissatori*: concise alternating rhythm (points), always very fast but to a great extent interrupted and formed from less numerous groups (left hand); continuous glissando within the indicated range: the motion must be parallel and the *glissatori* be in the same position as the manuals. The pointillistic sections indicate held clusters and glissandi of the right hand. Conclude with the invitation of the director. *Registers*: Successively deactivate all the 8' registers.

TIMPANI - Beat the tam-tams alternatingly, moving with natural tranquility within the space in which they are located. Conclude with the invitation of the director.

PERCUSSION - Continue counting (the metronome mark may change, choosing another number between 60 and 120), beating, in correspondence with the indicated numbers, suspended cymbals and triangles. Playing ends at number 78, *concluding independently of the director's invitation*.

STRINGS - Continuous *smanicamento* with the first finger, intermittent percussive attacks with the third finger. Total extension on every string for violins and violas, possible extension in positions without the tuning pegs for cellos and basses.

TRANSLATION OF VERSION I, PANEL 12

DIRECTOR - Numbers 1 through 10 are available. Indicate, as fast as possible, one number after another, automatically and without any premeditation, avoiding fixating on one sequence more than another. Ex.: 4,7,5,9,1,10,2,7,8,6,2,5,7,1,9,4,8,10,6,5,7,etc. One may initiate the signaling with a finger of the right hand, rapidly tracing a semicircle toward the left, indicate the new number, tracing a semicircle toward the right, and continuing in this manner. Maximum duration: 31 signals (minimum: 13 signals) After the signaling of the last number and its corresponding semicircle toward the left, give an invitation to conclude (crossed arms that diverge and remain immobile, parallel, with palms facing the orchestra) that will be received individually and without haste.

PERFORMANCE RULES - All the instruments play as written in the preceding page. A numeric sequence is assigned to every orchestra family. When the director indicates the first number, execution begins that concludes at the signal of the second number in the assigned sequence; execution resumes at the third number of the sequence, and again interrupted at the fourth, continuing thusly until the invitation to conclude, that will be received individually and without haste.

ORGANO - Execution on two manuals (see previous page) with indicated range. *Registers* - deactivate one by one while playing all the other registers 4', 2' and 1'; leave only one 2' flute.

PERCUSSION - Simple and double beatings, intermittent, on triangles, following the assigned numeric sequence.

STRINGS - Modify the distribution of strings for the *smanicamento* of sections 2,3,4,5 of the violins.

TRANSLATION OF VERSION II, PANEL 1

1. Translation of text

DIRECTOR - Enter as usual, when the orchestra is ready to begin playing (often one may give the audience a bit more time to wait). The gesture of attack - authoritative - indicates to the players the stylistic behavior suggested by the following page.

PERFORMANCE RULES - All the instruments begin playing not yet having found their seat in the orchestra. It is not necessary to follow any particular rules for the order of entrances. The performance character should be *preludante*: individual interpretation, variable durations and dynamics reliant on the initiative of anyone. Perform with continuous repetition. The columned pitch-collects offer a choice of one note per reading. At the director's attack, the players conclude playing simultaneously, *with one intoned pitch*.

FLUTES AND CLARINETS - Brief held and staccato pitches. The large and small arrows indicate *fragments of a chromatic scale of variable amplitude and in different registers of the instrument, in ascending and descending directions* (the 2nd and 4th flutes and 2nd and fourth clarinets have, at the center of their parts, a brief emission of continuous movement). The chromatic scale must be *only fingered*: the emission of *one staccato (staccatissimo)* is independent from the action of the finger.

TRUMPETS - The parts are comprised of the following figures:

1. Staccato notes
2. Held notes
3. Held, flutter-tongued notes
4. Held trilled notes
5. Simple staccato with continuous movement
6. Double staccato with continuous movement
7. Double lengthened staccato with continuous movement
8. Continuous movement, uninterrupted flutter-tongue
9. Concise rhythm (with disordered sequence) with continuous movement
10. Continuous movement, uninterrupted flutter-tongue emission *as high as possible* or *as low as possible*
11. Percussive attacks on the mouthpiece using the palm of the hand (2nd and 4th trumpets only)

NB - The emission with continuous movement, indicated with a bi-directional vertical arrow, should cover the entire range of the instrument.

HORNS - The parts are comprised of the following figures:

1. Staccato notes
2. Held notes
3. Held, flutter-tongued notes
4. Held trilled notes
5. Continuous movement, uninterrupted flutter-tongue emission
6. Continuous movement, uninterrupted emission
7. Percussive attacks on the mouthpiece using the palm of the hand (2nd and 4th horns only)

NB - The notes in parenthesis at the beginning of the continual movement figures serve only as a reference and do not have to be relied on: the range is indeterminate.

TROMBONES - The parts are comprised of the following figures:

1. Staccato notes
2. Held notes
3. Held, flutter-tongued notes
4. Held trilled notes (*like*

a half-step, very short movement of the *coulisse*) 5. Continuous, flutter-tongued, glissando, within the indicated range 6. Simple staccato with glissando, indeterminate intonation 7. Double staccato with glissando, indeterminate intonation

ORGAN - Execution on three manuals. Large, medium, and small *glissatori* on two manuals: held and staccato notes and clusters, simple and double glissandos. The sections enclosed in rectangles are alterable. *Registers* - Continuous registration, with a *preludianate* character, on three manuals, as if composing a registration: independent action from that of the organist, but particularly cautious of the reed registers; avoid the *ripieni*. The performance begins simultaneously with the ignition of the motor.

NB - The *glissatori* rest on the manuals, in the indicated positions, for the entire duration of the performance. On a mechanical organ any register can be connected or disconnected extreme slowly or only partially.

TIMPANI - 1. Staccato note 2. Rolled note 3. Staccato note with fluctuation

PERCUSSION - 1. Groups with multiple readings 2. Groups with multiple readings 3. Change the modes of attack, beating alternately on drumheads, rims, and wood.

STRINGS - The parts are comprised of the following figures:

1. Staccato notes 2. Staccato notes with *acciaccatura* 3. Held notes 4. Held notes with *acciaccatura* 5. Held, tremolo notes 6. Glissando within the indicated range (held or tremolo) 7. Glissando within the extension of the indicated string 8. *Smanicamento* within the extension of the indicated string: simple, double, or multiple *balzati* 9. Continuous glissando with tremolo 10. Percussive attacks on the tuning peg and arpeggios beyond the bridge.

TRANSLATION OF VERSION II, PANEL 2

1. Translation of Text

DIRECTOR - Wait for the independent attack of the orchestra, and at the conclusion, count six seconds before giving the next signal, which will invite the beginning of the next page.

PERFORMANCE RULES - After the director's gesture of attack in the preceding page, every player counts seven seconds and then plays their part. The numbering must be mnemonic and absolutely individual. One then waits for the director's successive signal, and then *intones* the initial position on the following page. By *intonation* one means: *try, attempt an emission of sound, repetitiously or not, in a preludiante-style*.

ORGAN - It's necessary that the organist remove the large *glissatori* from the manuals before playing the rapid and wide glissandos with the small and medium *glissatori*. Registration: Maximum *schweller*.

TRANSLATION OF VERSION II, PANEL 3

DIRECTOR - After the performance of the preceding page (a few seconds), give the attack with arms held out in front, hand together. From this position (angle 0°) begins the movement, which consists of a slow divergence of the arms until they reach an angle of 180°. Wide and variably slow gestures: one may interrupt the movement and begin it at an intermediate position, determined by an angle of variable size. In this case, one must then converge the arms immediately after the interruption; still, one may remain briefly immobile before the convergent motion. To summarize:

1. Divergence of the arms
2. Interruption (eventual brief immobility)
3. Total or partial convergence, then a new divergence.

Performance from three to six divergent motions, of variable size and slowness, of which *only one* diverges to 180°. Let the arms fall, with a calm and ordered gesture to invite the conclusion.

PERFORMANCE RULES - (percussionist excluded) - *As slowly and legato as possible*, following the arm motion of the director. One attacks when said motion begins, and the final held note of every part corresponds to the maximum stretching out of the arms (180°), while every intermediary note corresponds to an inferior angle. Every interruption corresponds to the uninterrupted emission of an intermediate note: the convergence of the arms obliges the performance of the *Coda*. The new divergent motion - according to the size of the angle - will suggest a reprise of the performance from one of the large note heads. The dynamic is indeterminate, but may be eventually suggested by the gestural behavior of the director.

FLUTES AND CLARINETS - Moderately held flutter-tongue notes; briefly held trilled notes. *Coda*: continuous motion with uninterrupted flutter-tongue emission.

TRUMPETS - Held notes or [sic: the score has 'or' but the music suggests that, like the horns, it should be 'and'] supported by *portamento*; performance with half valves. The *acciaccature* must be as staccato as possible. *Coda*: continuous movement (full valves) within the indicated range, uninterrupted flutter-tongue emission.

HORNS - Held notes and supported by *portamento*; put the hem of the jacket into the bell of the instrument. *Coda*: very short descending glissandos within the indicated range.

TROMBONES - Held notes and supported by glissando (rubber hat mute). *Coda*: very short descending glissandos within the indicated range.

ORGAN - Execution on two manuals. Medium *glissatori*: interrupted divergent motions, clusters of variable size for every movement; contrary motion and contrary movements between the two manuals. *Coda*: brief convergent glissandos, within the range already indicated. Registers: Fixed registers with 8' stops, on both manuals. During every divergent movement of the director, intervene with *one* staccato attack of the registers until 8' reed (one, two, or three together). No intervening during the *Coda*. On a mechanic organ, the reed's staccato can be obtained by partially connecting the registers (and immediately disconnecting, naturally).

PERCUSSION - Metal mallet inside the rim, very short movements of return (as if sharpening a blade) on the top part of the circumference, with variable intermittence; continuous movement with irregular acceleration and deceleration. *Coda*: tremolo on the top part of the rim.

STRINGS -

Violins 1,3 - Ascending glissando with a rebowed *balzata*

Violins 2,4 - Ascending *smanicamento*, ornamental groups within the indicated range

Violins 5 - Trilled, ascending glissando, *like a half-step* (adjacent fingers, indeterminate intonation)

Viola 1 - Trilled, descending glissando, *like a half-step* (adjacent fingers, indeterminate intonation)

Viola 2 - Descending *smanicamento*, ornamental groups within the indicated range

Cello 1 - Descending glissando, with rebowed *balzata*

Cello 2 - Descending *smanicamento*, ornamental groups within the indicated range

Bass 1 - Descending glissando, with rebowed *balzata*

Bass 2 - Descending tremolo glissando

Coda: The trilled glissando begins on the note played on the interruption: the note indicated by the arrow represents the upper or lower limit of the glissando.

TRANSLATION OF VERSION II, PANEL 4

DIRECTOR - Arms held out in front, palms raised toward the orchestra: semicircular movements, maximum variability in the size of the path, immobility of the arms after the movement, maximum irregularity in behavior, complete independence of the arms. The gestures, more or less slow, should be always marked with great calm, an impassive tranquility. Each arms can recommence motion after the interruption, beginning from any point on the semi circumference: in each case, the director must take care in making the shift to the successive position by lowering the arms, to make it invisible to the orchestra, and thereby non-active. Duration of the movements: 76" (1'16")

PERFORMANCE RULES - The section to the left of the page indicates the fixed or fluctuating intonation of each instrument, for the entire duration of the performance

according to the gesture described above. The numbered sections constitute models of performance behavior. All sections are *arbitrarily permutable and each must be performed repeatedly*. The beginning corresponds to the first passage of the director's arms before the players; the second passage of the arms will indicate the interruption of play; the third passage will be a new invitation to resume, the fourth will invite an interruption, continuing in this manner until the last conclusive gesture.

[See Version I, Panel 3 for performance rules for each player]

TRANSLATION OF VERSION II, PANEL 5

DIRECTOR - Authoritative attack for flutes, clarinets, trumpets, and horns; *not* for organ. Subsequent authoritative attacks for trombones and strings. Interruptions of variable durations between said sections: one may count from one to seven seconds after the conclusion of every intervention, concluding without any initiative on the part of the director. The organ part is completely independent from the rest of the orchestra. Performance is continually repeated. Invitation to conclude. Duration: 94" (1'34")

FLUTES AND CLARINETS - Continuous movement; prolonged actions with intermittent interruptions, improvised acceleration and deceleration of finger movement. Uninterrupted emission corresponding to the continuous movement. Dynamic level of *pp* with improvised *ff* in correspondence with moments of greatest acceleration. Differentiate as much as possible the fingerings, as if playing alternating ornamental groups of briefly held notes. Conclude at the invitation of the director, individually and without haste.

TRUMPETS AND HORNS - Every note may have a value corresponding to the unit indicated by a metronome, but may also assume a double or triple duration; the player must decide extemporaneously. Performance with continuous repetition: every repetition is linked to an interruption of 1" to 3". The choice of metronome marking is left to an individual arbitrary decision: "*appoggiata*" performance, uniform and monotonous. Conclude at the director's invitation, individually and without haste.

TROMBONES - Continuous glissando of the *coulisse* within the indicated range, avoiding the emission in coincidence to the positions of tempered pitches. Emission: brief glissandi, brief glissandi with an initial and final staccato, diminishing sounds (with open ties); the lines indicate the movement of the *coulisse*. Every section has one duration that must be controlled individually; performance with continual change on the director's initial attack. Conclude at the director's invitation, individually and without haste.

ORGAN - The boxes are intended for multiple readings and continuous repetition. Interventions are independent from those of the orchestra and rely on the soloistic initiative of the organist. Conclude at the director's invitation. The central system

allows for the use of the fingers and fist. The two outer systems use a medium *glissatore* (right hand) and small *glissatore* (left hand), within the indicated range. Progressing numbers indicates the possible paths: from 1 to 14. The sections enclosed in superimposed rectangles may be played fully or partially: the possible interruptions (from 1" to 4") are indicated by vertical dotted lines. After the interruptions one may continue playing from the same point, or follow the line to a higher or lower system. The closure of the rectangles obligates an interruption between 4" and 7". The arrows indicate the possible sequences. *The return to the central system is possible only by means of the passage crossing the vertically aligned rectangles.* Execution on four manuals. If the organ doesn't have a fourth manual, arrange the performance of the central systems for one manual.

Explanation of graphic symbols

1 - The open tie indicates a held sound. The vertical arrow indicates a simultaneous extinguishment of sound. Notes connected vertically: simultaneous execution.

2 - above - R.H.: variable ornamentation, articulation of the pulse with the *glissatore* on black and white keys. L.H.: concise rhythm highly interrupted with continuous glissandi.

4 - above - R.H.: short, very fast movements of continuous glissando.

8 - above - R.H.: articulation of pulse on black and white keys with brief continuous glissando. L.H.: small, undulating, descending, intermittent glissandi.

8 - below - R.H.: small, undulating, descending, intermittent glissandi.

9,10,12,13 - Undulating clusters and staccato attacks obtained with a fist within the indicated range: R.H. on white keys, L.H. on black keys.

14 - below - R.H. and L.H.: small, undulating glissandi, ascending and descending intermittently: independent hands.

Registration - central systems: fixed registration with 8' flute; continuous registration on *all* 8' and 4' registers, alternatingly. External systems: R.H. - fixed registration with 8' flute and 4' piccolo; L.H. - fixed registration 8' principle and 4' flute.

STRINGS - Continuously changing permutable performance of the four sections, on the initial cue of the director. Duration of all sections: individually controlled in seconds. Conclude at the director's invitation, individually and without haste.

Violin 1: Giddy movement with a virtuosic character - at half bow - *like* very fast *quartine* on the string. *Continuous shifts and irregularities of the bow on the four strings.* Continuous smanicamento of the left hand within the total extension; *barré* across the first string: *place the thumb of the left hand on the opposite part of the neck (to the right of the player) and obtain the barré by leaning the first finger-joint on the*

fourth string (across and toward the half position of the first string). Violin 2 and 4: intermittent double staccati on the two indicated strings, *barré* position across fourth string [see violin 1]. Continuous smanicamento within the entire possible extension. Violin 3 and 5: Simple, intermittent staccati on the two indicated strings [see violin 1]. Continuous smanicamento within the entire possible extension.

Viola 1 - See violin 1

Viola 2 - See violin 2 and 4

Cello 1: intermittent double staccati, ponticello (III string)

Cello 2: intermittent simple staccati, (III string)

Bass 1: intermittent double staccati, ponticello (I string)

Bass 2: intermittent simple staccati, ponticello (I string)

TRANSLATION OF VERSION II, PANEL 6

[The text for this panel gives virtually the same instructions as Version I, Panel 9, but as the gesture is inverted (a movement from lowest to highest pitch), so are the performance directions (any instruction in Version I that directed beginning from the highest possible now begins with the lowest possible pitch).]

TRANSLATION OF VERSION II, PANEL 7

DIRECTOR - The numbers 1 through 7 are at one's disposal. The director is limited to indicating with fingers, and as fast as possible, one number after another, automatically and without any premeditation, avoiding fixating on any one sequence above another.

Ex.: 3,7,4,2,6,1,7,5,2,1,3,7,4,2,6,5,1,4,etc. One may begin the signaling from the right, rapidly tracing a semicircle toward the left, indicating a new number toward the right, and continuing in this way. *The performance terminates unbeknownst of the director*, who shall interrupt it when no one is playing their numeric signs any longer (one can say that the performance isn't yet totally finished).

PERFORMANCE RULES: In all orchestral parts, the sections marked with A, B,C,D,E,F, and G are disposed in the following fashion:

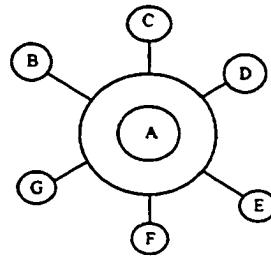


Figure A. 2 Panel II, 7 Possible Paths of Execution

The performance can be started from the central A and joining up with one of the external sections, in a clockwise fashion. (Ex. A,F,G,B,C,D,E; or A,D,E,F,G,B,C, etc.). Therefore:

- 1 - Every player decides individually (the strings decide in desks) the path to follow.
- 2 - Every player ascribes *individually* (or with a desk partner) to one pair of numbers for each section, *starting from the central A and following a course already chosen*. The numeric cycles that can be used are the following, keeping in mind that the choice of one of them should be by *absolute* chance.

- I - 1(2), 3(4), 5(6), 7(1), 2(3), 4(5), 6(7)
- II - 2(3), 4(5), 6(7), 1(2), 3(4), 5(6), 7(1)
- III - 3(4), 5(6), 7(1), 2(3), 4(5), 6(7), 1(2)
- IV - 4(5), 6(7), 1(2), 3(4), 5(6), 7(1), 2(3)
- V - 5(6), 7(1), 2(3), 4(5), 6(7), 1(2), 3(4)
- VI - 6(7), 1(2), 3(4), 5(6), 7(1), 2(3), 4(5)
- VII - 7(1), 2(3), 4(5), 6(7), 1(2), 3(4), 5(6)

- 3 - The organist may choose the numerical cycle *but not the path*: therefore ascribes to the pair of numbers to the obligatory course A,B,C,D,E,F,G.

- 4 - The first number of every pair indicates the performance, and the second in parentheses indicates the pause. It's necessary to attentively follow the director's numeric signaling, which are both commands of execution and interruption.

Ex. Having chose the path A,B,C,D,E,F,G and the cycle

1(2),3(4),5(6),7(1),2(3),4(5),6(7), one then behaves in the following way:

4 7 1 3 5 6 4 2 7 5 3 6 2 1 4 7 3 5 2 6 3 5 4 1 etc.
 ↓ ↓ ↓ ↓ ↓ ↓ ↓

PLAYER -

5 - The performance of any section is continuous and must rigorously follow the signaling of the director. (The constant character must be *as fast as possible*).

6 - The performance ends with the path is concluded, but it may result that the director *believes* that it already concluded and stops signaling.

FLUTES**A**

- 1 - Fluctuation sound, intermittent action of trill keys
- 2 - Intermittent flutter-tongue emission
- 3 - Uninterrupted flutter-tongue emission with intermittent staccati and key clicking
- 4 - *Sofia* [very breathy] emission, key clicking

B

1,2,3,4 - Intermittent trills of ascending half-step, within the indicated range

C

1 & 2, 3 & 4 - Staccato notes and staccato notes with acciaccatura; continuous and intermittent (within the range of each circle) execution in a clockwise direction; discontinuous performance (optional) of external ornamental groups (flutter-tongue) outside the circle, and re-entering it (or not), according to the corresponding internal note; the double arrows posted between the external groups indicate the tie to the successive circle and the eventual return to the first.

D

1,2,3,4 – Mute execution of the phrase, only fingered and as fast as possible; intermittent flutter-tonguing and absolute independence from the hand movement: the horizontal segments above the part indicate only the behavior of the emission and consequently must not be read as a part to be performed.

E

1,2,3,4 - Staccato notes, briefly held; continuous and intermittent performance (within the range of each triangle) in a clockwise direction; discontinuous performance (optional) of external ornamental groups; arbitrary shift from one triangle to another.

F

1,2,3,4 - Permutation (or not) of sections A,B,C,D; uninterrupted emission, variable durations.

G

1,2,3,4 - Permutation of sections A,B,C,D, intermittent execution.

A: Fluctuating, held, and *acciaccaturato* sound

B: Continuous movement, uninterrupted emission of brief durations

C: Ornamental groups

CLARINETS**A**

- 1 - Continuous movement with intermittently intoned notes; uninterrupted emission.
- 2 - Held sound with *acciaccatura*; intermittent emissions with variable durations.
- 3 - Intermittent notes with descending portamento of variable amplitude and rapidity.
- 4 - Alternating groups of 1,2, or 3 concise, intermittent *ribattuti*.

B

1,2,3,4 - Intermittent trills of a descending half-step, within the indicated range.

C

1 & 2, 3 & 4 - [See instructions for flutes, C]

D

1,2,3,4 - [See instructions for flutes, D]

E

1,2,3,4 - [See instructions for flutes, E]

F

1 & 2, 3 & 4 - Staccato notes with *acciaccatura*: continuous and intermittent execution (within the range of each circle) in a clockwise direction; discontinuous execution (optional) of external groups (continuous movement with the initial intoned, *appoggiata* pitch, uninterrupted emissions of brief duration); arbitrary change from one circle to another.

G

1,2,3,4 - Permutation of sections A,B,C, intermittent execution.

A: Ornamental groups;

B: Continuous movement, uninterrupted emission of brief duration;

C: Held fluctuating sound (1st); *as high as possible*, staccato with descending portamento (2nd); held fluctuating sound (3rd); staccato (4th).

TRUMPETS**A**

- 1 – Continuous movement with intermittent intoned note.
- 2 – Fluctuating note, half-valve.
- 3 – Intermittent, flutter tongue emission.

B

1,2,3,4 – Staccato notes (or indicated *portamenti*); continuous and uninterrupted execution (within range of each circle) in a clockwise motion; passage to successive circle through notes indicated with arrows.

C

1 & 2, 3 & 4 – Staccato notes in different positions - single, double, triple -; continuous and intermittent execution (within the range of each triangle) in a clockwise motion; discontinuous execution (optional) of external ornamental groups, leaving and re-entering (or not) by means of the corresponding internal group.

E

1,2,3,4 – Permutations of sections A,B,C; each section may be played partially or continually.

- 1 – A: Intermittent fluctuating sounds, of brief duration, *as high as possible* (lowest range indicated);
 B: Concise *ribattuti* in alternating positions;
 C: Ornamental groups of 1,2,3,4,5,6,7 notes, two itineraries available with an indeterminate point of attack.
- 2 – A: Concise *ribattuti* in alternating positions;
 B: Intermittent fluctuating sounds, of brief duration, *as high as possible* (lowest range indicated);
 C: Ornamental groups of 1,2,3,4,5,6,7 notes, two itineraries available with an indeterminate point of attack.
- 3 – A: Ornamental groups of 1,2,3,4,5,6,7 notes, two itineraries available with an indeterminate point of attack;
 B: Intermittent fluctuating sounds, of brief duration, *as high as possible* (lowest range indicated);
 C: Concise *ribattuti* in alternating positions.
- 4 – A: Ornamental groups of 1,2,3,4,5,6,7 notes, two itineraries available with an indeterminate point of attack;
 B: Concise *ribattuti* in alternating positions;
 C: Intermittent fluctuating sounds, of brief duration, *as high as possible* (lowest range indicated).

F

1,2,3,4 – Intermittent continuous movement, emissions of variable duration, *as high as possible* (lowest range indicated).

G

1,2,3,4 - Permutations of sections A,B,C; intermittent execution.

- A: rapid harmonics glissando and held fluctuating notes;
- B: ornamental groups of *ribatutte* notes in alternating positions;
- C: ascending glissando (*as high as possible*), descending portamento and continuous movement (a single emission) (1); staccato (*as high as possible*), continuous movement, ascending glissando (*as high as possible*) and descending portamento (a single emission) (2); ascending glissando (*as high as possible*) and descending portamento (a single emission) (3); staccato (*as*

high as possible) and continuous movement (a single emission) (4).

HORNS

A

- 1 - intermittent emission of brief duration; continuous movement with initial, intoned note;
- 2 - fluctuating sound; fourth cylinder pressed in half, fluctuating intonation with other three;
- 3 - intermittent flutter-tonguing
- 4 - intermittent staccato notes, at alternating positions.

B

1,2,3,4 - continuous movement within the indicated range; intermittent emission of variable duration.

C

1 & 2, 3 & 4 - staccato notes and staccato with *acciacatura*; continuous and intermittent execution (within the range of each circle) in a clockwise direction; discontinuous execution (optional exit) of external groups - continuous movement, uninterrupted emission of brief duration - leaving the circle and re-entering (or not) by means of the corresponding internal note.

D

1,2,3,4 - continuous movement within the indicated range; intermittent emission of variable duration.

E

1,2,3,4 - violent striking of the palm on the mouthpiece; single or double attacks with extremely variable intermittence.

F

1,2,3,4 - ascending half-step trills, fluctuating within the indicated range; intermittent and accented emissions of brief duration.

G

1,2,3,4 - permutation of sections A,B,C, intermittent execution.

- A: very rapid harmonic glissando, brief descending portamento and continuous movement (a single emission);
- B: staccato note (4) or *ribattute* notes at alternating positions;
- C: continuous movement over the entire extension of the instrument; uninterrupted emission of brief duration.

TROMBONES

A

- 1 - fluctuating held note
- 2 - intermittent, staccato notes at alternating positions; fading of the *coulisse* slide in the indicated positions.
- 3 - intermittent flutter-tonguing
- 4 - staccato notes (alternating open and close with a plastic hat); the double staccato should be obtained with a single emission, rapidly closing and opening (or viceversa) the bell with the plastic hat.

B

- 1,2,3,4 - staccato notes (or indicated portamenti); continuous and intermittent execution (within the range indicated by each circle) in a clockwise direction; passage to the successive circle by means of the notes indicated with arrows.

C

- 1 & 2, 3 & 4 - staccato notes, continuous and intermittent execution (within range of each triangle) in a clockwise direction; discontinuous execution (exit optional) of external groups - ornamental groups or continuous glissando within the indicated range, leaving or re-entering (or not) by means of the corresponding internal note.

D

- 1 - intermittent, superior mordents, within the indicated range, *like a half-step* but with minimum movement of the *coulisse*. Avoid positions of tempered sounds.
- 2 - intermittent, inferior mordents, within the indicated range, *like a half-step* but with minimum movement of the *coulisse*. Avoid positions of tempered sounds.
- 3-4 - intermittent, very short, ascending glissandi, within the indicated range, *like a half-step* but with minimum movement of the *coulisse*. The dotted lines indicate the movement of the *coulisse*.

E

- 1,2,3,4 - staccato notes, continuous and intermittent execution (within range of each circle) in a clockwise direction; discontinuous execution (exit optional) of external groups - continuous glissando, uninterrupted emission of brief duration - leaving or re-entering (or not) by means of the corresponding internal note; arbitrary shift from one circle to another.

F

- 1,2,3,4 - permutation of sections A,B,C (or not), intermittent execution; continuous glissando within the indicated range, intermittent emission of brief duration.

G

- 1,2,3,4 - continuous glissando within the indicated range, uninterrupted emission and as much rounding off [*slabbrata*] as possible; continuous hairpin dynamics with maximum force.

ORGAN**A**

Execution on two manuals. Concise *ribattuti* with independent hands. Pedal: staccato

notes with variable intermittence. Registers - manuals: fixed registration with 16' bordone; slowly connect and disconnect, one by one; the other registers are stopped 8' and sweet flute 8'. Pedal: fixed registration with subbasso 16'. *The registration that exists at the moment of interruption constitutes the base of registration B.*

B

Execution on two manuals. Right hand: intermittent groups of 1,2,4,5, or 7 extemporaneously chosen notes; bidirectional, horizontal execution (from right to left and left to right); the shift between staves is indicated by arrows. It is advised to follow with the right hand the shifts in the left hand (medium *glissatore* within the indicated range) that plays intermittent staccato clusters, alternating double clusters on black and white keys with pulsed articulation (the open tie indicates held sounds). Registers - fixed 'A' registration; slowly connect, one by one, the other 8' and 4' registers (less *ance*); successively disconnect the last two connected registers. *Cancel the registration.*

C

Execution on two manuals. Permutation of sections A,B,C: each section may be performed partially or continuously repeated; the juxtaposition of chosen fragments may happen with variable intermittence. Right hand: multiple readings with indeterminate beginning with ornamental groups of 1,2,3,5, or 6 notes; left hand: concise *ribattuto* (intermittent *lines* and *points*) with small *glissatore* in the indicated range.

Registers - all registers are fixed 8' (less *ance*); continuous registration (*veloce*) on remaining registers, one by one, from 8', 4', and 2'. *The registers existing at the moment of interruption constitute the base of registration in section D.*

D

Execution on two manuals. Permutation of sections A,B,C: each section may be performed partially or continuously repeated; the juxtaposition of chosen fragments may happen with variable intermittence. A,C: undulating and staccato clusters with the fist, within the indicated range, on black and white keys; B: concise *ribattuti* in intermittent groups, alternating hands with medium *glissatori*. Registers - fixed 'C' register. Continuous registration, *in couples*, with all remaining available registers, excluding the 16' and 32'. *Cancel the registration.*

E

Execution on one manual. Permutation of sections A,B,C (or not): continuous or intermittent execution, corresponding to the interruptions of the continuo, according to the extemporeneously chosen permutations. Manuals: intermittently held and staccato clusters (the open tie indicated a held sound, the dotted lines indicate the extinguishment of sound). Pedal: undulating clusters (transverse position) within the two ranges indicated. Registers - manuals: fixed registration with all 8' registers (less *ance*); continuous registration, *in pairs*, on the remaining available registers, with the exclusion of 16' and 32' registers and *ancia* 32'. *The registers existing at the moment*

of interruption constitute the base of registration in section F.

F

Execution on three manuals. Permutation of sections A,B,C,D,E, intermittent and continuous execution, very brief durations. A: staccato (fist); B: rapid glissando with medium *glissatori*; C: held and trilled notes; D: *ribattuti* groups with medium *glissatori*; E: undulation of fist and pedals (transverse position). Registers -fixed 'E' registration higher than 16', on manual I; other manuals: fixed registration on all 8', 4', and 2' registers; intermittent staccati of the *ripieni*. Pedal: one union of manuals II and III. *Cancel the registration.*

G

Execution on two manuals. Right hand: uninterrupted, held, medium *glissatori*; rapid, intermittent, ascending and descending glissandi. Left hand: irregular undulation of the large *glissatore*, continuous glissando within the indicated range. Absolute independence of hands. Pedal: intermittent undulation (transverse position) within the indicated range; absolute independence of feet. Registers - manuals: intermittent staccato *ripieni* (or brief *appoggiati* interventions: at one's pleasure); uncoordinated interventions between the two registers and between the registers and the organist. Pedal: one union in the manuals. *Important:* The organist independently creates the registration, abandoning the undulation of the pedals, violently connecting the *Schweller* to the maximum, and immediately intervening with the general annular.

TIMPANI

A - bell, as written;

B - roll, fluctuating from the center to the border;

C - intermittent double staccati, continuous glissando within the indicated range;

D - irregular scraping, with a circular movement of the cymbal on the head;

E - continuous glissando within the indicated range, on the first and third drums (the second drum has fixed intonation); intermittent groups of staccato notes, single or multiple, alternating on three heads;

F - continuous glissando within the indicated range, on the first and second drums; intermittent groups of one, two, or three staccato notes, alternating on two heads;

G - continuous roll on the first drum (fixed intonation), intermittent attacks on the third drum (continuous glissando within the indicated range).

PERCUSSION

A

1,2,3 - muffled suspended cymble: concise *ribattuto* in intermittent groups, obtained with two tambourine mallets, held respectively between the index and middle fingers, and middle and ring fingers.

B

1,2,3 - tremolo of muffled triangle.

C

1,2,3 - intermittent scraping, up and down along the top border of the tam-tam.

D

1,2,3 - continuous scraping inside the border: variable velocity, extemporaneous acceleration and deceleration.

E

- 1 - continuous, multiple readings: intermittent groups of 1,2,3, and 4 staccato attacks (with hands);
- 2 - permutable sections with intermittent execution;
- 3 - permutable sections with intermittent execution (alternate attacks in center and border).

F

- 1 - reading of multiple paths: alternating, continuous roll on four heads;
- 2 - permutable sections with intermittent execution;
- 3 - continuous roll on center of head, with intermittent attacks on the border.

G

- 1 - uniformly accelerating and decelerating, continuous motion; alternating attacks on four heads;
- 2 - permutable sections with intermittent execution; tremoli on two heads;
- 3 - continuous roll, fluctuating from the center to the border of the head; continuous hairpin dynamics, but always with maximum force.

STRINGS -The range of the *smanicamento* indicated the beginning of each section.

Adjacent fingers: trills, mordents, duplets, and similar figures are played in an indeterminate mode, with fingers in the closest positions possible.

A

Violins

- 1 - pizzicato with ascending glissando of variable amplitude and rapidity;
- 2 - portamento of variable amplitude and rapidity, preceding the intoned pitch;
- 3 - tremolo, descending portamento and staccato note (pos. III-I);
- 4 - tremolo, ascending portamento and staccato note (pos. I-III);
- 5 - intermittent staccato notes with fluctuating intonation.

Violas

- 1 - intermittent staccato notes with fluctuating intonation;
- 2 - double, intermittent *balzato* with fluctuating intonation.

Cellos and Basses

- 1 - tremolo of fluctuating harmonics;
- 2 - intermittent pizzicato of harmonics.

B

Violins

- 1 - continuous *smanicamento*: intermittent ascending trills (adjacent fingers) with glissando;
- 2 - [see violin 1]
- 3 - continuous glissando with intermittent interruptions of *smanicamento* with ascending trills (adjacent fingers);
- 4 - continuous *smanicamento*: intermittent superior mordents (adjacent fingers);

5 - continuous *smanicamento*: intermittent inferior mordents (adjacent fingers).

Violas

- 1 - continuous *smanicamento*: intermittent ascending trills;
- 2 - continuous *smanicamento*: intermittent descending trills.

Cellos

- 1 - continuous interrupted glissandi with ascending trills: intermittent execution;
- 2 - continuous interrupted glissandi with descending trills: intermittent execution.

Basses

- 1 - continuous, interrupted *smanicamento* with ascending groups, *like* half-step duplets: intermittent execution.

C

Violins

- 1 - intermittent pizzicato with continuous *smanicamento*, discontinuous interruptions with pizzicati (clockwise direction);
- 2 - constantly interrupted *smanicamento*, ascending groups, *like* half-step duplets, intermittent execution;
- 3 - [see violin 1]
- 4 - [see violin 2]
- 5 - reading with multiple paths: intermittent pizzicato.

Violas

- 1 - [see violin 1]
- 2 - [see violin 2]

Cellos

- 1 - reading with multiple paths, intermittent pizzicato;
- 2 - alternating notes and harmonics.

Basses

- 1,2 - reading with multiple paths, intermittent harmonic pizzicati.

D

Violins

- 1,2 - intermittent thrown bows with brief descending glissandi of variable amplitude and velocity;
- 3,4 - [see violins 1,2]
- 5 - intermittent double *balzato* with continuous *smanicamento*.

Violas and Cellos

- 1,2 - [see violins 1,2]

Basses

- 1 - intermittent pizzicato glissando, of variable amplitude and velocity, lowest range indicated;
- 2 - intermittent double *balzato* with continuous *smanicamento*, lowest range indicated.

E

Violins

- 1,3 - constantly interrupted *smanicamento*, ascending groups, *like* half-step duplets, intermittent execution;
 2,4 - constantly interrupted *smanicamento*, descending groups, *like* half-step duplets, intermittent execution;
 5 - continuous *smanicamento* with double-stops in fluctuating positions (widening and narrowing of fingers 1-4 during the movement):
 intermittent single and double staccati.

Violas

- 1 - [see violins 1,3]
 2 - [see violins 2,4]

Cellos

- 1 - [see violins 1,3]
 2 - [see violins 2,4]

Bass

- 1,2 - continuous *smanicamento*: intermittent staccato notes.

F

Violins

- 1,3,5 - continuous *smanicamento*: intermittent ascending glissand trills;
 2,4 - continuous *smanicamento*: intermittent descending glissand trills;

Violas

- 1 - [see violins 1,3,5]
 2 - [see violins 2,4]

Cellos

- 1 - [see violins 1,3,5]
 2 - [see violins 2,4]

Basses

- 1 - [see violins 1,3,5]
 2 - [see violins 2,4]

G

Violins

- 1,2,3 - continuous *smanicamento*: intermittent single and double staccato notes alternate with rough staccati *al tallone* with ponticello (I string);
 4,5 - continuous *smanicamento*: intermittent single and double staccato notes alternate with rough staccati *al tallone* with ponticello (IV string).

Violas

- 1 - [see violins] (III string)
 2 - [see violins] (IV string)

Cellos

- 1,2 - [see violins] (IV string)

Basses

- 1 - continuous *smanicamento*: intermittent pizzicato with string *ribattuta* on the fingerboard;
 2 - continuous *smanicamento*: intermittent percussive attacks on the

fingerboard, *battuta sul legno*.

TRANSLATION OF VERSION II, PANEL 8a

DIRECTOR - Invite to play; at the conclusion of play, invite to count; wait for the performance that follows.

RULES OF PERFORMANCE - The duration of performance must be individually controlled according to the indication in seconds. According to the director's invitation, one mentally counts seven seconds: the count must be strictly individual.

FLUTES AND CLARINETS - Continuous movement, uninterrupted emission, individual duration.

TROMBONE - Continuous movement within the indicated range, uninterrupted emission; oscillation of the sound by covering and uncovering the bell with a wa-wa mute, individual duration.

HORNS - Continuous movement within the indicated range, individual range.

TROMBONES -

1,2 - continuous glissando within the indicated range, uninterrupted emission, individual duration;

3,4 - very brief, fading glissandi, within the indicated range, *like a half-step duplet but with minimum movement of the coulisse*; pause indicated in seconds between the two gestures.

ORGAN - Execution on two manuals. Large *glissatori* within the indicated range: concise *ribattuto*, indicated duration. Pedal: very frequent, alternating *ribattuti* (transverse position), indicated duration. Registers - manuals: fixed registration with 16' bordone and 8' sweet flute; during each attack: *one* register staccato with simple change (one by one, alternating). Pedal: fixed registration with sub basso 16'; union of manuals.

TIMPANI - Continuous glissando, roll of indicated duration.

PERCUSSION -

1 - uncontrolled beating with the fingers on the indicated drums, alternating;

2 - ornamental group;

3 - large cymbal used as a mallet; double articulation, obtained by wrist rotation, beating the drumheads with opposing borders of the cymbal.

STRINGS - Continuous arpeggio on four strings, irregular with improvised acceleration. Independent and continuous *smanicamento* in the left hand, on the entire possible extension of the instrument; transverse *barré* from the first to the fourth string

(1st finger). The violinists and violists must place the left-hand thumb on the opposite part of the neck (to the right of the player) and obtain the barré by leaning the first finger on the fourth string (across and toward the middle position of the first string). Indicated duration.

TRANSLATION OF VERSION II, PANEL 8b

DIRECTOR - Individual attack. At the conclusion, one invites the count, and waits for the performance that follows.

PERFORMANCE RULES - The performance rules for the previous section are valid here. After the count, the attack must be absolutely individual; at the conclusion, and after the director's attack, one counts until 13 as fast as possible: the emission, even aphonic, must be heard by the player. This is valid for successive attacks. The count must always be strictly individual.

PERCUSSION - 3 - Triple articulation.

TRANSLATION OF VERSION II, PANEL 8c

DIRECTOR - Individual attack after the count.

PERFORMANCE RULES - The duration of the pauses between the two gestures is indicated in seconds.

FLUTES AND CLARINETS - Indeterminate, fluctuating sound, held note between the two gestures: duration indicated in seconds.

ORGAN - The dotted space indicates interruption of the concise *ribattuto* with held clusters.

PERCUSSION - 3 - Irregular scraping (with circular motion) of the cymbal on the drumheads.

TRANSLATION OF VERSION II, PANEL 8d

DIRECTOR - At the conclusion of performance, one invites the count, and waits for the performance to end.

PERFORMANCE RULES - At the director's attack, one count from 13 to 1, *as fast as possible*.

TRANSLATION OF VERSION II, PANEL 8e

DIRECTOR - At the conclusion, the fourth and last invitation to count. From this moment the intervention of the director is not necessary, who *may* go away (but may also remain, if he considers it opportune).

PERFORMANCE RULES - The players may choose - individually - a number (ex.: 1 2 3 4 5 6 7 8 9 15 means: choose a number between 9 and 15) and count at an indeterminate velocity, but quickly and without delay.

FLUTES, CLARINETS, TRUMPETS, HORNS, TROMBONES - The duration corresponds to a single emission, held as long as possible, but spontaneously and without any force. The continuous movement (excluding trombones) undergoes accelerations and decelerations in an always more irregular way, unforeseen and capricious.

ORGAN, TIMPANI, PERCUSSION - The duration corresponds to the tempo employed by counting to a number chosen extemporaneously within the indicated range.

STRINGS - The duration corresponds to one bow, held as long as possible.

TRANSLATION OF VERSION II, PANEL 8f

PERFORMANCE RULES - The new count, always absolutely individual, begins immediately after having exhausted the breath, bow, or preceding numeration, *without waiting for the director's invitation*, even in the case that he chose to remain at his place. *From this moment on, every new count adds a unit, while the size of the range from which one chooses remains constant.*

WIND INSTRUMENTS - A single emission: gradual and progressive diminution of the duration.

ORGAN, TIMPANI, PERCUSSION - From here on, subtract a unit every time from the count that refers to duration, while the range of choice remains constant.

STRINGS - One bow: gradual and progressive diminution of the duration.

TRANSLATION OF VERSIONS (8g, 8h, 8i . . .)

PERFORMANCE RULES FOR THE REMAINDER OF THE PERFORMANCE - While the count increases by one each time, the durations diminish as much as possible: Avoid giving the attack a *staccato* character. The performance doesn't finish: its necessary interruption is imposed by the audience or by unforeseen circumstances.

ORGAN - Count of the successive durations:

1 10; 1 9; 1 8; 1 7; 1 6; 1 5; 1 4; 1 3

. 3; 1,2; 0,1 (optional attack).

TIMPANI - Count of successive durations:

1 9; 1 8; 1 7; 1 6; 1 5; 1 4; 1 3; 1,2; 0,1
(optional attack).

PERCUSSION - Count of successive durations:

1 - 1,2 8; 1 7; 1 6; 1 5; 1 4; 1 3; 1,2; 0,1 (optional
attack).

2 - 1,2,3 7; 1,2 6; 1 5; 1 4; 1 3; 1,2; 0,1 (optional attack).

3 - 1,2,3,4 6; 1,2,3 5; 1,2 4; 1 3; 1,2; 0,1 (optional attack).

BIBLIOGRAPHY*

- Barkl, Michael. *Franco Donatoni's Etwas ruhiger im Ausdruck*, M.M. dissertation, University of New England, 1985.
- Buck-Morss, Susan. *The Origin of Negative Dialectics: Theodor W. Adorno, Walter Benjamin, and the Frankfurt Institute*, The Free Press 1977.
- Bortolotto, Mario. *Fase seconda. Studi sulla Nuova Musica*. Turin: Einaudi, 1969.
- _____. "The New Music in Italy," *The Musical Quarterly*, Vol.51, No.1, Jan., 1965: 61-77.
- Borio, Gianmario. "La poetica della figura nella recente produzione di Donatoni," in *Donatoni*, ed. Enzo Restagno. Turin: Edizioni di Torino, 1990: 224-236.
- Colazzo, Salvatore. "Dal nulla il molteplice. I lavori solistici con le loro proliferazioni," in *Donatoni*, ed. Enzo Restagno. Turin: Edizioni di Torino, 1990: 110-129.
- Cresti, Renzo. *Franco Donatoni: Studio monografico sulla musica e la poetica di Franco Donatoni in relazione alle problematiche filosofiche e musicali dagli anni '50 ad oggi*. Milan: Edizioni suvini Zerboni, 1982.
- Donatoni, Franco. *Questo*. Milan: Adelphi Edizioni, 1970.
- Donatoni, Franco. *Il Sigaro di Armando: Scritti 1964-1982*, ed. Piero Santi. Milan: Spirali Edizioni: 1982.
- Halbreich, Harry. "Tre capolavori orchestrali di Franco Donatoni. *Voci, Duo pour Bruno, Arie*," in *Donatoni*, ed. Enzo Restagno. Turin: Edizioni di Torino, 1990: 194-214.
- Matteuzzi, Wally. "Gli scritti di Franco Donatoni," in *Donatoni*, ed. Enzo Restagno. Turin: Edizioni di Torino, 1990: 215-223.
- Montecchi, Giordano. "Donatoni 1950-1972: da bartók all'antimusica," in *Donatoni*, ed. Enzo Restagno. Turin: Edizioni di Torino, 1990: 77-109.
- Piencikowski, Robert. "Salvacondotto. Analisi di *Etwas Ruhiger im Ausdruck*," in *Donatoni*, ed. Enzo Restagno. Turin: Edizioni di Torino, 1990: 147-158.
- Nangeroni, Gabriella Mazzola. *Franco Donatoni*. Milan: Targa Italiana, 1989.

* All Italian sources have been translated by Yotam Haber

Restagno, Enzo. "Atem," in *Donatoni*, ed. Enzo Restagno. Turin: Edizioni di Torino, 1990: 181-193.

Stoianova, Ivanka, "Franco Donatoni: Souvenir," *Musique en jeu*, 20 September 1975.