

William Kleinsasser

Wings of Daedalus

for chamber orchestra and computer

(1993)

Duration: c. 12 minutes

Commissioned by Randall C. Fleischer
and the Hudson Valley Philharmonic

Orchestra

1 flute
1 oboe
1 clarinet in Bb
1 bassoon

1 horn in F
1 trumpet in C
1 trombone

2 percussion:

Percussion 1

glockenspiel
crotales

Percussion 2

1 sizzle cymbal (medium)
1 suspended cymbal (medium)
2 tamtams (medium and large)
2 wood blocks (medium and large)
2 bongo drums (played with sticks)
3 tom toms (small, med. and large)
bass drum

piano

computer-controlled electro-acoustic music (detailed below)

strings (6-12 violins, 1-3 violas, 1-3 cellos, 1-3 basses)

Notational Information



All glisses begin immediately and last the entire duration of the initiating note



All natural harmonics are notated at sounding pitch except bass, which sound an octave lower than written



For winds and brass: indicates flutter tongue
For percussion: indicates a roll
For strings: indicates an unmeasured tremolo



Gradual accelerando or ritard independent of overall tempo



In conjunction with brass harmon mutes: from open to closed with hand over stem of mute
In conjunction with triangle: ringing freely to dampened with hand while playing
An arrow is also used to indicate a gradual change from one mode of playing to another, eg. sul pont. to sul tasto. This is also notated with *ma... in places.*



Play highest possible pitch

• All percussion notes should be allowed to ring naturally unless otherwise indicated (♢)

• All grace notes are to be played immediately prior to the beat (or subdivision) of their associated note

• Following a fermata the tempo should return to the last constant tempo which preceded the fermata unless otherwise indicated

• All notes that do not end with a diminuendo marking (◯) should be held at a steady level and released without a diminuendo

Notation of indefinitely pitched percussion instruments



Score is in C with the following exceptions:

All glockenspiel notes sound 15ma higher than written
All bass notes sound 8va lower than written
(including harmonics)

Computer Music System Requirements

Computer running software developed by the composer for this piece using "tap tempo" synchronization

MIDI baton sending tempo taps via momentary button. Another device capable of sending MIDI switch controller messages can be substituted.

Mixer for sampler output and digital effects

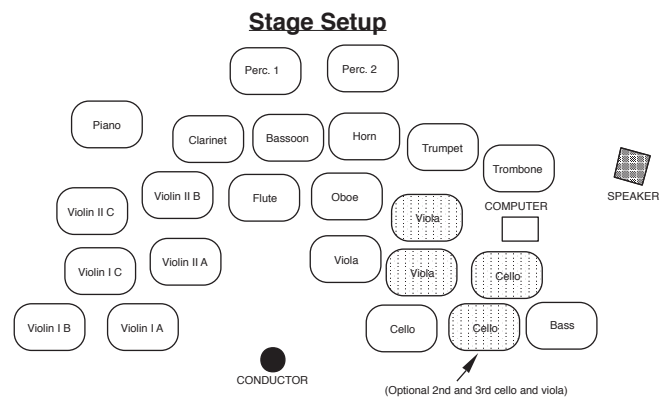
Amplifier for two-channel audio

2 loudspeakers in stereo configuration (suggested placement diagrammed to right)

If the mixer and venue allow, all instruments could be slightly amplified to aid balance and blend.



SPEAKER



Loudspeakers should be placed on stands approx. 6 feet high and placed so that the conductor can hear the program. Placement of the speakers should be back from the front of the stage to facilitate balance and blending. Monitor speakers can be used for the conductor if needed.

ABOUT THE PIECE

Wings of Daedalus is, in part, a response to Pierre Boulez's statement that late modern music replaced the model of the linear narrative with the model of the labyrinth. As an idea itself, the labyrinth has fascinated people for millennia. The labyrinth is a construction with a myriad of possible pathways that ultimately hide or contain a secret. The construction is both a prison to the unknowing and a beautiful design to those with the perspective of having learned the labyrinth. In more complex labyrinths, the labyrinth walker must make choices which take him or her to a hidden chamber. The experience, half-finished, must conclude with the walker retracing the path back out. If the labyrinth is too complex, then the walker is trapped in an inextricable prison. If the labyrinth is too simple then the outcome is inevitable, for the patient walker simply follows the path in and then out. Between these extremes there is a zone of complexity where the labyrinth becomes a compelling, challenging endeavor.

The experience of unfamiliar or new music has many similarities to the labyrinth. New music can be considered a temporal experience (walk) through a complex set of intertwining events which, upon reflection and study, become understood, and perhaps even beautiful. This metamorphosis, from baffling sound to understood music, involves the shift of perspective from music as "seen from inside" to "seen from above." This shift is dramatically expressed in the myth of Daedalus, who builds the labyrinth to entrap the Minotaur and then is, himself, imprisoned inside his creation, the complexity of which exceeds the designer's own cunning. Daedalus escapes the trap by ingeniously building a set of wings with feathers and wax, flying out of the labyrinth altogether. Seen from above, the aesthetic aspects of the labyrinth reemerge. It becomes a complex network of intertwining, possible pathways.

The electronic music that is integrated with the orchestra in this work is presented by a digital sampler playing sound-files developed using csound and SoundHack. These software tools were primarily used to produce transformations based on phase vocoding, complex dynamic filtering, and cross synthesis. During performance, a computer running a sequencing program tracks the conductor's beat via a MIDI-equipped baton, in essence, following the conductor in a way analogous to musicians play in an orchestra. This has emerged as a practical way to synchronize digital music with live performance without requiring the performers to synchronize with tape. Using this method, the orchestra is freer to perform with temporal nuance which allows a more fluid, and musically-timed performance.

Wings of Daedalus was commissioned by the Hudson Valley Philharmonic Orchestra under the musical direction of Randall Craig Fleischer.

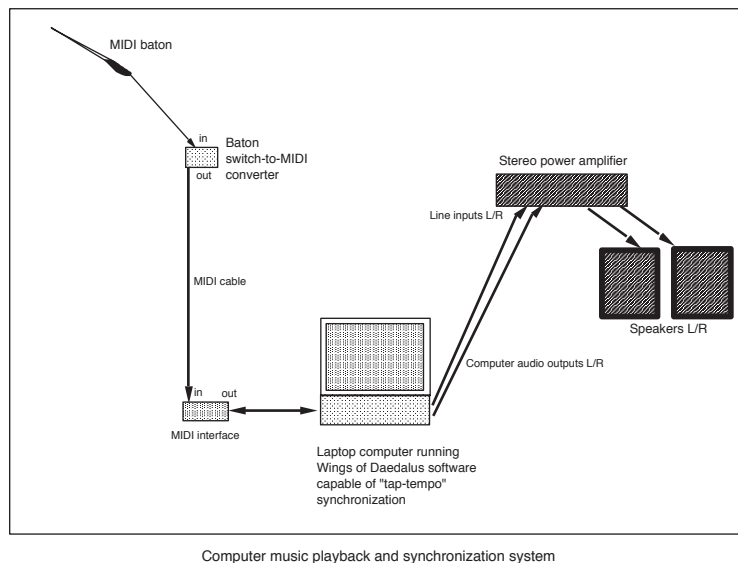
ABOUT THE COMPUTER MUSIC

The computer music that is integrated with the orchestra in this work is realized in concert by a computer system running software that tracks the conductor's beat via a MIDI, in essence, following the conductor in a way analogous to how musicians play in an orchestra. This has emerged as a practical way to synchronize digital music with live performance without requiring the performers to synchronize with tape. Using this method, the orchestra is freer to perform with temporal nuance which allows a more fluid, and musically-timed performance.

The computer runs software developed by the composer that is capable of "tap-tempo" synchronization, controlling the playback of MIDI sequences. The sequences are realized by a softwaresampler playing programs designed by the composer that were developed using sound manipulation software including csound, SoundHack and Sound Designer II. These software tools were primarily used to produce transformations based on cross-synthesis, phase vocoding, and complex dynamic filtering. The digital sampler, given enough memory, can be thought of as a miniature, but highly flexible, direct-from-RAM digital soundfile playback system. In this regard the composer is offered the possibility of simple cue initiation (as in the direct-from-disk paradigm) which can involve the playback of cues with durations limited only by the internal memory of the sampling device. But, more powerfully, the cue list paradigm can be integrated with the ability to build sequences of short soundfiles defined as multi-samples by the device and played by MIDI sequences that can be flexibly timed during performance.

Tap-tempo synchronization enables the playback tempo of the sequence to be updated on a regular and ongoing basis. In a sense, the electro-acoustic music "listens to" and follows the performers rather than vice versa. Using tap tempo, the computer operator taps a button or key (or any other definable MIDI message) which is interpreted by the program as a beat or sub-beat. The program then extrapolates the timing for the music between the current time and the next expected beat or sub-beat. In this regard, the temporal flow of the sequence can be altered at levels ranging from the sub-beat to multiples of the metric beat. The level of interpretation is programmed into the sequence by the composer. This feature makes flexible musical timing possible for the composer using the sequencer/sampling device method of integrating electro-acoustic music with live performance.

The tap is simply a defined MIDI event. The MIDI foot pedal, which is often used to communicate the tap, is simply a voltage switch. Because of this, it was a straight-forward matter to develop a conductor's baton that is equipped with a simple momentary on button that is wired to the MIDI system as a control pedal device. Using this baton, the conductor taps the button for each beat and the sequencer follows the subtle changes of musical timing without a problem. This method allows for the integration of electro-acoustic music with live performance without requiring the performers to synchronize to fixed machine timing or run the risks inherent in elaborate methods of pitch detection and score following. A diagram of this system is provided below. I would like to acknowledge my gratitude to Bryan Nelson, an electronic engineer, who designed and built the baton-to-midi converter used for the first performances..



WINGS OF DAEDALUS

Score in C

Commissioned by the Hudson Valley Philharmonic

William Kleinsasser
(1993)

**Intensely,
with premonition of momentum**
♩ = 72

Flute *pp* *ff* *pp* *ff* *pp*

Oboe *pp* *ff* *pp*

Clarinet *pp* *ff* *pp* *ff*

Bassoon *pp* *ff* *pp* *ff*

Horn *pp* *ff* *p* *ff* *pp* *ff*

Trumpet *pp* *ff* *p* *ff*

Trombone *pp* *ff*

Percussion 1 *ff* *ff*

Percussion 2 *ff* *ff*

Piano *ff* *ff*

Computer music

Computer music BEGINS

Computer music *f* *ff*

**Intensely,
with premonition of momentum**
♩ = 72

Violin I *pp* *ff* *pp* *ff* *marcato* *ff*

Violin II *pp* *ff* *ff* *marcato* *ff*

Viola *pp* *ff* *ff* *marcato* *ff*

Cello *pp* *ff* *ff* *marcato* *ff*

Bass *pizz* *ff* *ff* *ff*

1 2 3 4 5 6

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Fl. *pp*

Ob. *ff*

Cl. *pp* *ff* *pp* *pp* *ff* *pp*

Bsn. *ff* *p* *pp*

Hn. *p* *ff* *pp*

Trpt. *fp* *mf* *p* *ff* *pp*

Trb. *pp* *ff* *pp*

Perc. 1 *f* *lv.* *glockenspiel: lv.* *ff*

Perc. 2 *mf* *p* *ff* *ff* *p*

Piano *f* *ff*

Computer *ff* *pp*

Vln. I *ff* *ff* *pp*

Vln. II *ff* *ff* *pp*

Vla. *ff* *pp*

Cello *ff* *pizz* *arco* *pp*

Bass *ff*

7 8 9 10 11

Lontano *Assertively*

Fl. *ff* *pp* *espr.* *p* *ff*

Ob. *espr.* *p* *pp* *ff*

Cl. *pp*

Bsn. *ff* *pp*

Hn. *ff* *pp* *rip* *ff*

Trpt. *ff* *mf*

Trb. *ff*

Perc. 1

Perc. 2 *w/ sticks* *ff*

Piano *pp* *mp*

Computer *strum-pizz gliss downward ...* *D5 drone begins very slow gliss to E5 ...*

Lontano *Assertively*

Vln. I *ff* *pp* *strum pizz open str. rhythmically free* *arco* *ff*

Vln. II *ff* *pp* *strum pizz open str.* *arco* *ff*

Vla. *ff* *pp* *strum pizz open str.*

Cello *ff* *pizz* *p*

Bass *ff* *arco* *sul G* *pp*

12 13 14 15 16

a tempo with intensity

Fl. *ff* *fp* *mf*

Ob. *p* *ff* *ff*

Cl. *p* *ff* *ff* *pp*

Bsn. *p* *ff* *p*

Hn. *f* *p* *ff* *p*

Trpt. *ff* *5*

Trb. *p* *cup mute*

Perc. 1 *ff* *crotales* *lv.* *p*

Perc. 2 *mf* *ff* *ff* *lv.*

Piano *5* *scd*

Computer *noise-tone* *5* *ff* *COMPUTER MUSIC CONTINUES* *strum-pizz gliss downward* *sustained tones match mm. 22-23*

Vln. I *5* *ff* *strum pizz open str. rhythmically free* *pp* *a tempo with intensity*

Vln. II *5* *ff* *pp* *strum pizz open str.*

Vla. *ff* *pp* *strum pizz open str.*

Cello *arco* *ff* *5* *pizz* *p* *arco* *p*

Bass *pizz* *ff* *pizz* *p* *arco* *p*

17 18 19 20 21 22

Faster
♩ = 104

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

23 24 25 26 27 28

Fl. *f* *fl.* *fp* *norm.* *f*

Ob. *fp* *f* *p*

Cl. *f* *ff* *p* *f*

Bsn. *f*

Hr. *f*

Trpt. *f*

Trb. *f*

Perc. 1 glockenspiel: *crotales: lv*

Perc. 2 bongos: *f* *siz. cym: yarn mallet* *lv*

Piano *f* *ff* *f*

Computer *dissolving repetitions*

Vln. I *f* *ff* *f* *f* *ff*

Vln. II *f* *ff* *ff* *f* *ff*

Vla. *f* *ff* *f* *ff*

Cello *f* *ff* *f* *ff*

Bass *f* *ff* *pizz*

29 30 31 32 33 34

41

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

42

43

44

45

46

timbral modulations on Bb5 and Ab5 ...

gliss down ...

- 9 -

Fl. *ff* *f*
 Ob. *ff* *f*
 Cl. *f*
 Bsn. *f*
 Hn.
 Trpt.
 Trb. *ff*
 Perc. 1 *ff* *lv.*
 Perc. 2 *ff* *lv.*
 Piano *ff* *pp* *p* *ff*
 Computer
 Vln. I *f* *non trem.*
 Vln. II *f*
 Vla. *f*
 Cello *pizz* *ff*
 Bass *pizz* *ff*

52 53 54 55 56

[illegible]

Fl. *pp* *fl.t*

Ob. *pp*

Cl. *pp*

Bsn.

Hn.

Trpt. *fl.t*

Trb.

Perc. 1

Perc. 2

Piano

Computer glisses match orchestral pitches. ...

Vln. I

Vln. II 1 solo: *arco* *pp*

Vla. 1 solo: *arco* *pp*

Cello

Bass

63 64 65 66 67 68

Fl. *non vibr.* *pp* *Assertively* *norm.* *f*

Ob. *f*

Cl. *f*

Bsn. *f*

Hn. *con sord.* *f* *fp*

Trpt. *cup mute* *f* *fp*

Trb. *str. mute* *f* *fp*

Perc. 1

Perc. 2 *bongos:* *ff*

Piano *mf*

Computer *COMPUTER MUSIC CONTINUES* *ff* *mf*

Vln. I *1 solo:* *norm.* *p* *Assertively* *tutti* *ff* *tutti (arco)* *3*

Vln. II *p* *ff*

Vla. *p* *tutti pizz* *ff*

Cello *1 solo:* *p* *pizz* *ff*

Bass *tutti pizz* *ff*

69 70 71 72 73 74 75

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

76

77

78

79

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

mf *cresc.* *ff* *fff* *pp* *arco* *pizz* *arco norm.* *sid. pont.*

Slowly disintegrating

Distorted representation of the orchestral music through m. 102. Gradually disintegrating to distant wash of sound.

80 81 82 83

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

computer music cont.

Vln. I

Vln. II

Vla.

Cello

Bass

84

85

86

87

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

dim.

88

89

90

91

tutti dim. . . .

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

tutti dim. . . .

Vln. I

Vln. II

Vla.

Cello

Bass

92

93

94

95

96

tutti:

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

tutti:

Vln. I

Vln. II

Vla.

Cello

Bass

97 98 99 100 101 102

♩ = 104
With renewed momentum

Fl. *f* 6 *ff*

Ob. *f* *ff*

Cl. *f* 6 5 *ff*

Bsn. *f* *ff*

Hrn. *p* 3

Trpt. *p* 3 cup mute

Trb. *p* 3 cup mute

Perc. 1 *ff* crotales: 1x

Perc. 2 *ff* sssp. cym:

Piano *p*

Computer *diminishing to distant wash of sound...*

♩ = 104
With renewed momentum

Vln. I *f* 5 *ffp* *mf* *ff*

Vln. II *f* 5 *ffp* *mf* *ff*

Vla. *f* 5 *ffp* *mf* *ff*

Cello *f* 5 *ffp* *mf* *ff*

Bass *mf* 3 pizz

103 104 105 106 107

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

108

109

110

COMPUTER MUSIC BEGINS

doubling woodwind gestures through m. 165 ...

sustaining selected long notes from string lines through m. 165 ...

Fl.
 Ob.
 Cl.
 Bsn.
 Hn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 Vln. II
 Vla.
 Cello
 Bass

Measures 111, 112, and 113 are indicated at the bottom of the page. The score includes various musical notations such as rests, notes, and dynamic markings like *fp*.

116

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

117

118

119

The musical score spans measures 117 to 119. The woodwind section (Flute, Oboe, Clarinet, Bassoon) and Horns/Trumpets/Trombones play melodic lines with various articulations and fingerings. The string section (Violins I and II, Viola, Cello, Bass) provides harmonic support, with measures 118 and 119 featuring a more active and dynamic performance, marked with *mf* and *ff*. The Piano and Percussion parts are present but have minimal activity in these measures. The Computer part is also present but has no visible notation.

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

susp. cym:
soft yarn mallets

pp

cresc.

ff

tremolos and timbral modulations match orchestral pitches ...

p

cresc.

ff

p

cresc.

ff

p

cresc.

f

120

121

122

123

124

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

125

126

127

Detailed description: This page contains the musical score for measures 125, 126, and 127. The score is written for a full orchestra and piano. The instruments listed on the left are Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Trumpet (Trpt.), Trombone (Trb.), Percussion 1 (Perc. 1), Percussion 2 (Perc. 2), Piano, Computer, Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Cello, and Bass. The score is in 4/4 time. Measures 125 and 126 are marked with a double bar line. Measure 127 is marked with a double bar line. The piano part features complex chords and triplets. The strings play a rhythmic pattern. The woodwinds and brass have melodic lines. The percussion parts are marked with rests. The computer part is marked with a double bar line. The violin and viola parts have a forte (ff) dynamic marking. The cello and bass parts have a forte (ff) dynamic marking. The score is written in a standard musical notation with a key signature of one flat (Bb) and a common time signature (C).

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

128

129

ffp

ff

Fl.
 Ob.
 Cl.
 Bsn.
 Hn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 Vln. II
 Vla.
 Cello
 Bass

glockenspiel: *f*
p *ff*
ffp *ff*
ffp *ff*
ffp *ff*
ff

130 131 132

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

133

134

135

Fl.
 Ob.
 Cl.
 Bsn.
 Hn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 Vln. II
 Vla.
 Cello
 Bass

Measures 136, 137, and 138 are indicated by boxed numbers at the bottom of the page. The score includes various musical notations such as triplets, slurs, and dynamic markings like *ffp* and *ff*.

Fl.

Ob.

Cl.

Bsn.

Hr.

Trpt.

Trb.

Perc. 1
glockenspiel:
f

Perc. 2

Piano

Computer
dark gliss texture begins...

Vln. I
ff
7

div. 2
ff

Vln. II
7
p

div. 2
p

Vla.
ff

Cello
ff

Bass

142

143

144

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

div. 2

div. 3

Vln. II

div. 2

Vla.

Cello

Bass

glockenspiel:

f

mf

f

f

mf

f

f

ff

ffp

f

mf

f

148

149

150

This page of the musical score contains the following staves and parts:

- Fl.** (Flute): Melodic line with sixteenth and thirty-second notes, including triplets and slurs.
- Ob.** (Oboe): Similar melodic line to the flute, with slurs and triplets.
- Cl.** (Clarinet): Melodic line with slurs and triplets.
- Bsn.** (Bassoon): Melodic line with slurs and triplets.
- Hn.** (Horn): Melodic line with dynamic markings *mf* and *f*, and slurs.
- Trpt.** (Trumpet): Melodic line with dynamic markings *mf* and *f*, and slurs.
- Trb.** (Trombone): Melodic line with dynamic markings *mf* and *f*, and slurs.
- Perc. 1** and **Perc. 2**: Percussion staves, currently showing rests.
- Piano**: Accompanying part with chords and slurs, dynamic markings *mf* and *f*.
- Computer**: Two staves for computer-generated sounds, currently showing rests.
- Vln. I** (Violin I): Melodic line with dynamic markings *ff* and slurs.
- div. 2** (Violin II): Melodic line with dynamic markings *ff* and slurs.
- div. 3** (Violin III): Melodic line with dynamic markings *ff* and slurs.
- Vln. II** (Violin II): Melodic line with dynamic markings *ff* and slurs.
- div. 2** (Violin II): Melodic line with dynamic markings *ff* and slurs.
- Vla.** (Viola): Melodic line with dynamic markings *p* and *ff*, and slurs.
- Cello**: Melodic line with dynamic markings *ffp* and *ff*, and slurs.
- Bass**: Melodic line with dynamic markings *mf* and *f*, and slurs.

The score includes various musical notations such as notes, rests, and dynamic markings like *mf*, *f*, and *ff*. The page is numbered 151, 152, and 153 at the bottom.

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1
glockenspiel:
f
siz. cym:
hard yarn mallets

Perc. 2
pp

Piano

Computer

Vln. I

div. 2

Vln. II

div. 2

Vla.

Cello

Bass

154

155

156

Fl.

Ob.

Cl.

Bsn.

Hr.

Trpt.

Trb.

Perc. 1
glockenspiel:
f

Perc. 2
(pp)

Piano

Computer

Vln. I

div. 2

Vln. II

div. 2

Vla.

Cello

Bass

Fl.

Ob.

Cl.

Bsn.

Hrn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

div. 2

Vln. II

div. 2

Vla.

Cello

Bass

senza sord.

ff

glockenspiel:

f

cresc.

ff

p

160

161

162

Faster
♩ = 144

♩ = 144 As if gaining a new perspective

FL.

Ob.

Cl.

Bsn.

senza sord.
Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Faster
♩ = 144

♩ = 144 As if gaining a new perspective

Vln. I

div. 2

div. 3

Vln. II

div. 2

div. 3

Vla.

Cello

Bass

glockenspiel:
Accent downbeats
through m. 228

4 tomtoms:
w/ sticks

Rea (down through m. 228)

doubling cello line and wind texture...

arco

163 164 165 166 167

Fl.
 Ob.
 Cl.
 Bsn.
 Hrn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

Musical score for measures 168-172. The score includes parts for Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone, Percussion 1 and 2, Piano, Computer, Violin I, Violin II (divided into 2 and 3 parts), Viola, Cello, and Bass. The notation is in standard musical notation with various clefs and key signatures.

168

169

170

171

172

Fl.
 Ob.
 Cl.
 Bsn.
 Hrn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

The score spans measures 173 to 176. The woodwind section (Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone) and brass section (Trumpet, Trombone) play active melodic and harmonic lines. The percussion section (Perc. 1, Perc. 2) provides rhythmic support. The piano part is mostly silent, with some chords in measures 173 and 176. The computer part plays a simple harmonic line. The string section (Violins I and II, Divisi 2 and 3, Viola, Cello, Bass) provides a lush harmonic background with sustained notes and some movement in the lower strings.

173

174

175

176

Fl.
 Ob.
 Cl.
 Bsn.
 Hrn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

Musical score for measures 177-180. The score includes parts for woodwinds (Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone), brass (Bass Trombone), percussion (Percussion 1 and 2), piano, computer, and strings (Violin I, Violin II, Viola, Cello, Bass). The score is written in 4/4 time and features various musical notations including notes, rests, and dynamic markings.

177

178

179

180

Fl.
 Ob.
 Cl.
 Bsn.
 Hrn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

Musical score for measures 181-184. The score includes parts for woodwinds (Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone), percussion (Perc. 1, Perc. 2), piano, computer, and strings (Violin I, Violin II, Viola, Cello, Bass). The notation is in 4/4 time, with a key signature of one flat (B-flat). The score is divided into four measures, with measure numbers 181, 182, 183, and 184 indicated at the bottom.

181

182

183

184

Fl.

Ob.

Cl.

Bsn.

Hrn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

div. 2

div. 3

Vln. II

div. 2

div. 3

Vla.

Cello

Bass

The musical score spans measures 185 to 189. The woodwind section (Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone) features complex melodic lines with many sixteenth and thirty-second notes. The brass section (Horn, Trumpet, Trombone) provides harmonic support with sustained notes and rhythmic patterns. Percussion 1 and 2 play steady eighth-note patterns. The piano part is mostly silent, with some chords in measures 187 and 188. The computer part plays a simple melodic line. The string section (Violins I and II, Violins divided 2 and 3, Viola, Cello, Bass) provides a rich harmonic texture with sustained notes and some movement in the lower strings.

185

186

187

188

189

Fl.
 Ob.
 Cl.
 Bsn.
 Hrn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

190

191

192

193

Fl.

Ob.

Cl.

Bsn.

Hrn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

div. 2

div. 3

Vln. II

div. 2

div. 3

Vla.

Cello

Bass

194

195

196

197

Fl.
 Ob.
 Cl.
 Bsn.
 Hn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

The musical score spans measures 198 to 201. The woodwind section (Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone) features complex melodic and rhythmic patterns. The percussion section (Perc. 1, Perc. 2) provides a steady rhythmic foundation. The piano part is mostly silent, with occasional chords. The computer part has a simple bass line. The string section (Violins I, Violins II, Violas, Cellos, Basses) includes sustained notes and moving lines. The brass section (Trumpets, Trombones) has a more active role with various rhythmic figures.

198

199

200

201

Fl.

Ob.

Cl.

Bsn.

Hrn.

Trpt.

Tbn.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

div. 2

div. 3

Vln. II

div. 2

div. 3

Vla.

Cello

Bass

202

203

204

205

Fl.
 Ob.
 Cl.
 Bsn.
 Hrn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

Musical score for measures 206-209. The score includes parts for Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone, Percussion 1 and 2, Piano, Computer, Violin I, Violin II, Viola, Cello, and Bass. The notation is in 4/4 time and features various musical notations including notes, rests, and dynamic markings.

Fl.
 Ob.
 Cl.
 Bsn.
 Hn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

Musical score for measures 210-212. The score includes parts for Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone, Percussion 1 and 2, Piano, Computer, Violin I, Violin II, Viola, Cello, and Bass. The key signature is one flat (B-flat). The score is divided into three measures, with measure numbers 210, 211, and 212 indicated at the bottom.

Fl.
 Ob.
 Cl.
 Bsn.
 Hrn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

The score is written for a large ensemble. Measures 213-216 show a complex interplay of instruments. The woodwinds (Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone) and brass (Trumpet, Trombone) play melodic and harmonic lines. The percussion (Perc. 1, Perc. 2) provides a rhythmic foundation. The piano has a sparse accompaniment. The computer part provides a steady bass line. The strings (Violins I, Violins II, Viola, Cello, Bass) provide a harmonic and rhythmic support.

213

214

215

216

Fl.
 Ob.
 Cl.
 Bsn.
 Hn.
 Trpt.
 Trb.
 Perc. 1
 Perc. 2
 Piano
 Computer
 Vln. I
 div. 2
 div. 3
 Vln. II
 div. 2
 div. 3
 Vla.
 Cello
 Bass

The score spans measures 217 to 220. The woodwind section (Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone) features complex melodic lines with many accidentals. The brass section (Trumpet, Trombone) plays sustained notes. Percussion 1 is silent, while Percussion 2 plays a steady eighth-note pattern. The piano is silent. The computer part provides a rhythmic accompaniment in the bass. The string section (Violins I, Violins II, Viola, Cello, Bass) plays a consistent eighth-note accompaniment, with some double-bowings indicated by '2' below the notes.

Fl.

Ob.

Cl.

Bsn.

Hrn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

div. 2

div. 3

Vln. II

div. 2

div. 3

Vla.

Cello

Bass

strum-pizz begins as high pedal ...

8va

8va

221

222

223

224

(free breathing)

$\text{♩} = 66$ Metamorphosis

Fl.

Ob.

Cl.

Bsn.

Hr.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

orchestra recedes to background as
strum-pizz music develops...

$\text{♩} = 66$ Metamorphosis

Vln. I

div. 2

div. 3

Vln. II

div. 2

div. 3

Vla.

Cello

Bass

225

226

227

228

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Dolce
con sord.

Vln. I

Vln. II

Vla.

Cello

Bass

229

230

231

232

233

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

sul tasto

ppp

pp

con sord.

p

pp

234

235

236

237

238

Fl.

Ob.

Cl.

Bsn.

Hn.

pp

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

pp

3

Cello

Bass

239

240

241

242

243

- 58 -

(emerging just above the general balance)

p

(emerging just above the general balance)

p

pp

pp

pp

pp

249 250 251 252 253

- 60 -

- 61 -

Fl. *p*

Ob.

Cl. *pp*

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla. *pp*

Cello

Bass *pp*

264 265 266 267 268

Fl.

Ob.

Cl.

Bsn.

Hn.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer

Vln. I

Vln. II

Vla.

Cello

Bass

269

270

271

272

273

pp

pp

ppp

Fl. *non vibr.* *pp* *rall. . .*

Ob.

Cl. *pp*

Bsn.

Hr.

Trpt.

Trb.

Perc. 1

Perc. 2

Piano

Computer *strum-pizz music diminishes to silence.*

Vln. I *senza sord.* *rall. . .* *strum pizz open str.* *rhythmically free* *ppp* *lv.*

Vln. II *senza sord.* *strum pizz open str.* *ppp* *lv.*

Vla. *senza sord.* *strum pizz open str.* *ppp* *lv.*

Cello *senza sord.* *pizz* *pp* *lv.*

Bass *senza sord.* *pizz* *pp* *lv.*

274 275 276 277