

TRANSIT: FLUX

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A Thesis

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MASTER OF MUSIC

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ABSTRACT

Marilyn Shrude, Advisor

Transit: Flux is a nine-minute composition for symphony orchestra, whose title refers to motion and the idea of passing sound from right to left and front to back. The perception of sonic motion is created through and around the orchestra by using numerous instruments to play large gestures, dovetailing the instruments to create a single coherent event. To achieve this effect, some of the orchestra members were relocated. The brass section was evenly split and paired with a set of timpani on the left and right sides of the stage behind the string section. The contrabasses were placed upstage of the percussion.

Transit: Flux is cast in a single movement and consists of four interior sections. It begins with a declamatory brass introduction that establishes the main idea of movement and panning. A melodic section devoted to the woodwinds with light string accompaniment follows the introduction. The third and largest section is sparked by the low brass playing doppler effect gestures from right to left and vice versa, creating the perception of a spinning wheel. The gestures gradually quicken until the “spinning” is nothing but a high-pitched hum or whirling sound in the strings, singing tube, and vibraphone. The final section of the piece begins when the high-pitched hum eventually snaps, sending down a cascade of chaotic rhythmic pandemonium. This gives rise to passages of controlled aleatory with an individual cell’s pitch content derived from the melodic material of the second section. The piece ends as the texture slowly dissipates away to nothing.

The harmonic and melodic material was derived from intuitively designed twelve-tone sets, each containing different groups of intervals and levels of dissonance. These sets were inspired by Witold Lutoslawski’s use of pitch in pieces such as *Jeux Venitiens* and *Livre*. Karlheinz Stockhausen’s *Gruppen*, Jacob Druckman’s *Windows*, and Gyorgy Ligeti’s *Lontano* were also influential in the composition of this piece.

Instrumentation

2 Flutes

2 Oboes

2 Clarinets in B \flat 1 Bass Clarinet in B \flat

1 Bassoon

4 Horns in F

4 Trumpets in B \flat

2 Trombones

1 Bass Trombone

1 Tuba

Timpani 1 (4 drums)

Timpani 2 (4 drums)

Percussion 1

Bass Drum

Triangle

Tambourine

3 Low Tom-Toms

Vibraphone w/ soft mallets

Brake Drum

Percussion 2

Suspended Cymbal w/ yarn mallets

2 High Tom-Toms

Whip

Gong

Singing Tube (a 30-inch plastic hose, usually available at toy stores, which when twirled can create a high-pitched whistle; the pitch is dependent on the speed at which the tube is twirled)

Harp

Piano (lid off)

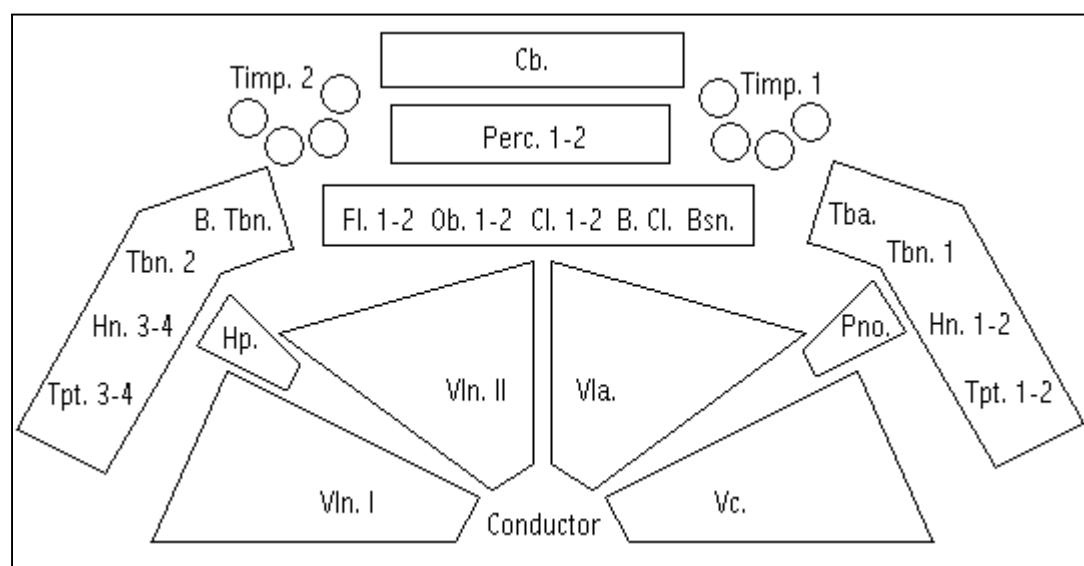
Violin I

Violin II





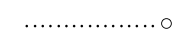

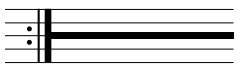
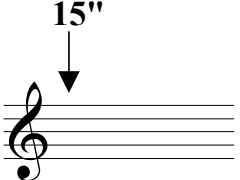



Viola

Violoncello

Contrabass



Performance Notes

-  Quarter-tone flat
-  Quarter-tone sharp
-  No meter; freely, within context of given metronome marking
-  Glissando up; glissando down
-  Gradually move from muted to unmuted
-  Highest possible note
-  Play material between repeat signs for the duration of the thick line; the caesura indicates optional re-entry points during repetitions. Players are independent; do not coordinate.
-  15"
Time markers indicate duration of frame.
-  Gradually accelerando
-  Fermatas from letters **H** through **O** are to be held at the discretion of the performers.
-  In letter **I**, the strings are to glissando according to the contour of the given line for the prescribed number of beats. The approximate pitch is based on the vertical position of the line; i.e., line close to top of box equals a high pitch.

Transit: Flux

Solemn ♩ = 60

Paul David Thomas

Flute 1 & 2

Oboe 1 & 2

Clarinet in B \flat 1 & 2

Bass Clarinet in B \flat

Bassoon

Horn in F 1 & 2

Horn in F 3 & 4

Trumpet in B \flat 1 & 2

Trumpet in B \flat 3 & 4

Trombone 1

Trombone 2

Bass Trombone

Tuba

Timpani 1

Timpani 2

Percussion 1

Percussion 2

Harp

Piano

Violin I

Violin II

Viola

Violoncello

Contrabass

Solemn ♩ = 60

Solemn ♩ = 60

11

Fl. 1 & 2

Ob. 1 & 2

Cl. 1 & 2

B. Cl.

Bsn.

Hn. 1 & 2 *gaining momentum*

Hn. 3 & 4

Tpt. 1 & 2

Tpt. 3 & 4

Tbn. 1

Tbn. 2

B. Tbn.

Tba.

Timp. 1

Timp. 2

Perc. 1

Perc. 2

Hp.

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

16

Fl. 1 & 2

Ob. 1 & 2

Cl. 1 & 2

B. Cl.

Bsn.

Hn. 1 & 2

Hn. 3 & 4

Tpt. 1 & 2

Tpt. 3 & 4

Tbn. 1

Tbn. 2

B. Tbn.

Tba.

Timp. 1

Timp. 2

Perc. 1 *Bass Dr. forcefully*

Perc. 2 *Sus. Cymbal w/ yarn mallets* *choke*

Hp.

Pno.

Vln. I

Vln. II

Vla.

Ve.

Cb.

p *f* *ff* *mf*

A
Calmly ♩ = 68

20 1.

Cl. 1 & 2
Hn. 1 & 2
Hn. 3 & 4

27 1. 6 3

Ob. 1 & 2
Cl. 1 & 2

36 1.

Fl. 1 & 2
Ob. 1 & 2
Cl. 1 & 2

B
poco accel. ♩ = 75

44

Fl. 1 & 2
Ob. 1 & 2
Cl. 1 & 2
B. Cl.
Bsn.

B
poco accel. ♩ = 75

Bass Dr.

Whip

Perc. 1
Perc. 2
Pno.
Vln. I
Vln. II
Vla.
Vc.
Cb.

$\text{♩} = 87$

57

Fl. 1 & 2
(p) *mf*

Ob. 1 & 2
(p) *mf* p

Cl. 1 & 2
(mp) *mf* p

B. Cl.
(mp) *mf* p 3

Bsn.
(mp) *mf* p 3 3

Hn. 1 & 2
p

Hn. 3 & 4
p

Tpt. 1 & 2
a2 plunger mute p

Tpt. 3 & 4
a2 plunger mute p

Tbn. 1
plunger mute p

Tbn. 2
plunger mute p

$\text{♩} = 87$

Perc. 1
Tambourine *mf*

Perc. 2
Sus. cymbal p choke *mf*

Hp.
mf

Pno.
mf

Vln. I
mf gliss. p

Vln. II
mf gliss. p

Vla.
sul G *mf* gliss. p

Vc.
mf gliss. p

Cb.
sul E p *mf* gliss.



♩ = 95

61 *accel.*

Fl. 1 & 2 *p* *mf*

Ob. 1 & 2 *mf*

Cl. 1 & 2 *mf* *p*

B. Cl. *mf* *p*

Bsn. *mf* *p*

Hn. 1 & 2 *mf* *p* *a2*

Hn. 3 & 4 *mf* *p* *a2*

Tpt. 1 & 2 *mf* *p* *plunger mute*

Tpt. 3 & 4 *mf* *p* *plunger mute*

Tbn. 1 *mf* *p* *plunger mute*

Tbn. 2 *mf* *p* *plunger mute*



♩ = 95

accel.

Perc. 1 Triangle *p* *mf* Tamb. *mf*

Perc. 2 Sus. cymbal *p* choke *mf*

Hp. *p* *mf*

Pno. *p* *mf*

Vln. I *mf* *p* *sul A*

Vln. II *mf* *p* *sul D* *sul A*

Vla. *mf* *p* *sul G*

Vc. *mf* *p* *sul A*

Cb. *p* *mf*

65

Fl. 1 & 2 *p* *mf* *tr* *acc.*

Ob. 1 & 2 *p* *mf* *tr* *p*

Cl. 1 & 2 *mf* *p*

B. Cl. *mf* *p*

Bsn. *mf* *p*

Hn. 1 & 2 *mf* *p*

Hn. 3 & 4 *mf* *p*

Tpt. 1 & 2 *mf* *p*

Tpt. 3 & 4 *mf* *p*

Tbn. 1 *mf* *p*

Tbn. 2 *mf* *p*

Perc. 1 Triangle *p* *mf* Tamb. *mf* *acc.*

Perc. 2 Sus. cymbal *p* choke *mf*

Hp. *p* *mf*

Pno. *p* *mf*

Vln. I *mf* *p*

Vln. II *mf* *p*

Vla. *mf* *p*

Vc. *mf* *p*

Cb. *p* *mf*

68 $\text{♩} = 100$

Fl. 1 & 2 *mp* 5 5 5 *f* *p* 6 7

Ob. 1 & 2 *f* *p* 6 7

Cl. 1 & 2 3 6 *f* *p* 6 7

B. Cl. 6 *f* *p* 6 7

Bsn. 6 *f* *p* 6 7

Hn. 1 & 2 *f* *gliss.* *p*

Hn. 3 & 4 *f* *gliss.* *p*

Tpt. 1 & 2 *f* *open* *gliss.* *plunger mute* *p*

Tpt. 3 & 4 *f* *open* *gliss.* *plunger mute* *p*

Tbn. 1 *f* *open* *gliss.* *plunger mute* *p*

Tbn. 2 *f* *open* *gliss.* *plunger mute* *p*

$\text{♩} = 100$

Perc. 1 Triangle *p* *mf* Tamb. *mf* *p*

Perc. 2 Sus. cymbal *p* choke *mf* *p*

Hp. *p* *f*

Pno. *p* *f*

Vln. I *sul E* *sul D* *f* *p*

Vln. II *sul D* *f* *p*

Vla. *f* *p*

Vc. *f* *p*

Cb. *p* *f*

71

Fl. 1 & 2 *mf* *cresc.* 5 5 5 *ff*

Ob. 1 & 2 *mf* *cresc.* 5 5 *ff*

Cl. 1 & 2 *mf* *cresc.* 6 6 *ff*

B. Cl. *mf* *cresc.* *ff*

Bsn. *mf* *mf* *cresc.* *ff*

Hn. 1 & 2 *cresc.* *ff*

Hn. 3 & 4 *cresc.* *ff*

Tpt. 1 & 2 *cresc.* *ff*

Tpt. 3 & 4 *cresc.* *ff*

Tbn. 1 *cresc.* *ff*

Tbn. 2 *cresc.* *ff*

B. Tbn. *ff*

Tba. *ff*

Perc. 1 *cresc.* *ff*

Perc. 2 *cresc.* *ff*

Hp. *p* *cresc.* *ff*

Pno. *p* *cresc.* *ff*

Vln. I *cresc.* *ff*

Vln. II *cresc.* *ff*

Vla. *cresc.* *ff*

Vc. *cresc.* *ff*

Cb. *mp* *cresc.* *ff*

cascading **D** Slowly ♩ = 70

Fl. 1 & 2
Ob. 1 & 2
Cl. 1 & 2
B. Cl.
Bsn.
Hn. 1 & 2
Hn. 3 & 4
Tpt. 1 & 2
Tpt. 3 & 4
Tbn. 1
Tbn. 2
B. Tbn.
Tba.
Timp. 1
Timp. 2
Perc. 1
Perc. 2
Hp.
Pno.
Vln. I
Vln. II
Vla.
Vc.
Cb.

ff, *mp*, *f*, *p*, *gliss*, *mf*, *f*, *p*, *mf*, *f*, *p*, *f*, *mf*, *f*, *p*, *f*, *mf*

77 *accel.*

Hn. 1 & 2
Hn. 3 & 4
Tpt. 1 & 2
Tpt. 3 & 4
Tbn. 1
Tbn. 2
B. Tbn.
Tba.
Timp. 1
Timp. 2
Cb.



E

Mechanical ♩ = 100

84 *tr.*

Hn. 1 & 2
Hn. 3 & 4
Tpt. 1 & 2
Tpt. 3 & 4
Tbn. 1
Tbn. 2
B. Tbn.
Tba.

E

Mechanical ♩ = 100

Timp. 1
Timp. 2
Vln. I
Vln. II
Vla.
Vc.

90

Fl. 1 & 2

Ob. 1 & 2

Cl. 1 & 2

B. Cl.

Bsn.

Hn. 1 & 2

Hn. 3 & 4

Tpt. 1 & 2

Tpt. 3 & 4

Tbn. 1

Tbn. 2

B. Tbn.

Tba.

Timp. 1

Timp. 2

Vln. I

Vln. II

Vla.

Vc.

94 *tr* *accel.* **F** ♩ = 110

Fl. 1 & 2 *tr* *p*

Ob. 1 & 2 *tr* *p*

Cl. 1 & 2 *tr* *p*

B. Cl. *tr*

Bsn. *tr*

Hn. 1 & 2 *p* *f* *pp* *p* *mp* *mf* *p* *f* *gliss.*

Hn. 3 & 4 *f* *gliss.* *3* *pp* *p* *mp* *f*

Tpt. 1 & 2 *p* *f* *pp* *p* *mp* *mf* *p* *f* *gliss.*

Tpt. 3 & 4 *f* *pp* *p* *mp* *f*

Tbn. 1 *p* *f* *gliss.*

Tbn. 2

B. Tbn.

Tba. *p* *f* *gliss.*

accel. **F** ♩ = 110

Timp. 1 *f*

Timp. 2 *pp* *f*

Vln. I *3* *3* *3* *3* *3* *3* *3* *3* *mf* *sul A* *gliss.*

Vln. II *3* *3* *3* *3* *3* *3* *3* *3* *mf* *sul A* *gliss.*

Vla. *5* *3* *3* *3* *3* *mf* *sul G* *gliss.*

Vc. *5* *6* *3* *3* *3* *mf* *sul C* *gliss.*

Cb. *mf* *sul A* *gliss.*

108

accel. -----

Fl. 1 & 2 *f* 6 6 6 6

Ob. 1 & 2 *mf* 6 6 6

Cl. 1 & 2 *p* 3 3 3 3 *mf*

B. Cl. 3 3 3 3

Bsn. 3 3 3 3

Hn. 1 & 2 *p* *f* 3 3

Hn. 3 & 4 *f* 6 3 *p*

Tpt. 1 & 2 *p* *f* 3 6 *p* *f* 3

Tpt. 3 & 4 *f* 6 *p* *f* 6 *p*

accel. -----

Vln. I sul A *gliss.* 3 *gliss.* 3 sul E 3 *gliss.*

Vln. II *gliss.* 3 *gliss.* 3 *gliss.* 3 sul E *gliss.* 3

Vla. *gliss.* 3 *gliss.* 3 sul D *gliss.* 3

Vc. sul A sul D *gliss.* 3 3 *mp* *mf* 3 3 *gliss.* 3

Cb. 3 3 3 3 *gliss.* 3

G Floating ♩ = 54

♩ = 120

Fl. 1 & 2

Ob. 1 & 2

Cl. 1 & 2

Tpt. 1 & 2

Tpt. 3 & 4

Perc. 1

Perc. 2

Hp.

Vibraphone w/ soft mallets

Singing Tube

G Floating ♩ = 54

♩ = 120

Vln. I div. a2

Vln. II div. a2

Vla. div. a2

Vc. div. a2

gliss.

slowly unraveling

118

Perc. 1

Perc. 2

f *p*

Vln. I

Vln. II

Vla.

Vc.

(p) *cresc.*

(p) *cresc.*

(p) *cresc.*

(p) *cresc.*

(p) *cresc.*

H
Frenetic ♩ = 95

133 a2

Fl. 1 & 2
Ob. 1 & 2
Cl. 1 & 2
B. Cl.
Bsn.
Hn. 1 & 2
Hn. 3 & 4
Tpt. 1 & 2
Tpt. 3 & 4
Tbn. 1
Tbn. 2
B. Tbn.
Tba.

H
Frenetic ♩ = 95

Timp. 1
Timp. 2
Perc. 1
Perc. 2
Pno.
Vln. I
Vln. II
Vla.
Vc.
Cb.

unis.
sul D
ff over-pressure
sul D
ff over-pressure
sul G
ff over-pressure
sul G
ff over-pressure
sul E
ff over-pressure

vary bow pressure randomly
vary bow pressure randomly
vary bow pressure randomly
norm. sul E

ca. 30" Chaotic

Fl. 1 & 2
Ob. 1 & 2
Cl. 1 & 2
B. Cl.
Bsn.

Hn. 1 & 2
Hn. 3 & 4
Tpt. 1 & 2
Tpt. 3 & 4
Tbn. 1
Tbn. 2
B. Tbn.
Tba.
Timp. 1
Timp. 2

ca. 30" Chaotic

Vln. I
Vln. II
Vla.
Vc.
Cb.



Fl. 1 & 2
Ob. 1 & 2
Cl. 1 & 2
B. Cl.
Bsn.

Vln. I
Vln. II
Vla.
Vc.
Cb.

J **Agitato** (♩ = 95)

139

Hn. 1 & 2 *p* *cresc. poco a poco* *sim.*

Hn. 3 & 4 *p* *cresc. poco a poco* *sim.*

Tpt. 1 & 2 *p* *cresc. poco a poco* *sim.*

Tpt. 3 & 4 *p* *cresc. poco a poco* *sim.*

Tbn. 1 *p* *cresc. poco a poco* *sim.*

Tbn. 2 *p* *cresc. poco a poco* *sim.*

B. Tbn. *p* *cresc. poco a poco* *sim.*

Tba. *p* *cresc. poco a poco* *sim.*

Timp. 1

Timp. 2

Perc. 1

Perc. 2

Vln. I

Vln. II

Vla.

Vc.

Cb.

L
1
15"

Fl. 1 & 2
Ob. 1 & 2
Cl. 1 & 2
B. Cl.
Bsn.
Tbn. 1
Tbn. 2
B. Tbn.
Tba.

L
aggressively ♩ = 120

Vln. I
Vln. II
Vla.
Vc.
Cb.

2
10"

3
5"

Fl. 1 & 2
Ob. 1 & 2
Cl. 1 & 2
B. Cl.
Bsn.
Tbn. 1
Tbn. 2
B. Tbn.
Tba.

Vln. I
Vln. II
Vla.
Vc.
Cb.

♩ = 90

♩ = 60

mp
mp
mp
mp
mp
pp
pp
pp
pp

f

4 5"

5 5"

Fl. 1 & 2

Ob. 1 & 2

Cl. 1 & 2

B. Cl.

Bsn.

Tbn. 1

Tbn. 2

B. Tbn.

Tba.

Vln. I

Vln. II

Vla.

Vc.

Cb.

$\text{♩} = 120$

$\text{♩} = 90$

f



6 5"

7 10"

Fl. 1 & 2

Ob. 1 & 2

Cl. 1 & 2

B. Cl.

Bsn.

Tbn. 1

Tbn. 2

B. Tbn.

Tba.

Vln. I

Vln. II

Vla.

Vc.

Cb.

$\text{♩} = 60$

f

ad. lib.

mp

M

1 3" 2 3" 3 3" 4 3" 5 ca. 8" $\text{♩} = 120$

Fl. I & 2

Ob. I & 2

Cl. I & 2

B. Cl.

Bsn.

Vln. I

Vln. II

Vla.

Vc.

Cb.

N

1 3" 2 3" 3 3" 4 3" 5 ca. 8" $\text{♩} = 90$

Fl. I & 2

Ob. I & 2

Cl. I & 2

B. Cl.

Bsn.

Vln. I

Vln. II

Vla.

Vc.

Cb.

O

1 2 3 4 5

3" 3" 3" 3" ca. 20" $\text{♩} = 60$

Fl. 1 & 2

Ob. 1 & 2

Cl. 1 & 2

B. Cl.

Bsn.

Vln. I

Vln. II

Vla.

Vc.

Cb.



P

154 *growing in strength* ($\text{♩} = 60$) *accel.*

Hn. 1 & 2

Hn. 3 & 4

Tpt. 1 & 2

Tpt. 3 & 4

Tbn. 1

Tbn. 2

B. Tbn.

Tba.

Timp. 1

Timp. 2

Vln. I

Vln. II

Vla.

Vc.

Cb.

Q Powerfully ♩ = 110

162

poco a poco rit.

Fl. 1 & 2

Ob. 1 & 2

Cl. 1 & 2

B. Cl.

Bsn.

Hn. 1 & 2

Hn. 3 & 4

Tpt. 1 & 2

Tpt. 3 & 4

Tbn. 1

Tbn. 2

B. Tbn.

Tba.

Q Powerfully ♩ = 110

poco a poco rit.

Timp. 1

Timp. 2

Perc. 1 Tom-Tom Bass Dr.

Perc. 2 Tom-Tom Gong

Hp.

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

170 $\text{♩} = 50$ **R** accel. ca. $\text{♩} = 65$

Fl. 1 & 2 *mf* *f* *expressively* 3

Ob. 1 & 2 *p* *mf* *p*

Cl. 1 & 2 *mf* *p*

B. Cl. *mf* *p*

Hn. 1 & 2 *mp* *p* *pp*

Hn. 3 & 4 *mp* *p* *pp*

Tbn. 1 *mp* *p*

Tbn. 2 *mp* *p*

B. Tbn. *mp*

Tba. *mp*

Hp. *p*

Vln. I *p* *mf*

Vln. II *(mp)* *n* *p* *mf*

Vla. *(mp)* *n* *p* *mf*

Vc. *p* *mf*

Cb. *p* *mf*



177 *pp*

Fl. 1 & 2 *pp*

Vln. I *slowly dying away* *(mf)* *mp*

Vln. II *slowly dying away* *(mf)* *mp*

Vla. *slowly dying away* *(mf)* *mp* *p* *pp*

Vc. *slowly dying away* *(mf)* *mp* *div.* *p* *pp*

Cb. *slowly dying away* *mp* *p* *ppp*