

# attrito

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Text: "Attrito" by Giuseppe Ungaretti, from "L'allegria - Il porto sepolto".

Flute in C **1**  $\text{♩} = 57$  **1** **3** **3** **3** **1** **3** **1**

Flute in C **3** **8** **8** **8** **8** **8** **8** **8**

Flute in C **7:6** **8:7** **4:5** **4:3** **8:7** **6:5** **6:5**

Flute in C **pk** **t** **p** **t** **tk** **pk** **t** **o** **o** **o** **t** **pk**

Flute in C inhale inside inhale inside

**9** **3** **3** **3** **2** **5** **5** **5** **2**

**8** **8** **8** **16** **16** **16** **8**

**7:6** **9:10** **6:5** **5:4** **6:5** **6:5** **7:5** **6:5** **8:7** **5:3** **6:5**

**p** **t** **t** **t** **pk**

Viola **open**

Viola **alla tromba** **inhale inside**

Viola **ppp ↔ mp**

Viola Pass the bow on the side of the bridge, next to the first string. NOT on the on top of the bridge! The bow should be parallel to the direction of the strings. The resulting sound should be a very high-pitched and soft sound. Improve around this sound and dynamic range.

**16** **7** **5** **5** **5** **2** **3** **3**

**16** **16** **16** **16** **8** **8** **8**

**6:5** **6:5** **8:7** **9:5** **3:2** **4:3** **5:4** **5:3** **9:8** **3:2** **10:9** **9:7** **9:5**

**spz** **p'**

**closed**

Viola **ppp ↔ mp**

Viola Gradually (really slowly), after exploring the initial sonority, position the bow toward the top of the bridge, just above the bridge, without a pitch. At this point also mute the strings with the left hand and prepare for the next action.

Viola Pass the bow on the side of the bridge, next to the first string. NOT on the on top of the bridge! The bow should be parallel to the direction of the strings. The resulting sound should be a very high-pitched and soft sound. Improve around this sound and dynamic range.

23 **4**  
8

**4**  
**3**  
8

**3**  
8

**5** ♩=64  
**7**  
16

□ open  
 Amplification gradually goes down  
 Push the tongue against the pallet and then suck the air out of it.

fl **open** **closed** **open** **open**  
 5:8 9:8 3:2 3:2 9:8 6:8 5:8 7:8  
 alla tromba k'

tp *p*

sax M38 M39 *p*

vin/via *ppp*  
 with muted strings and the bow over the bridge, improvise gestures that alternate between the strings

bass *msp*  
 gradually move bow to msp position on IV string

perc

elect

mf t k † ||

3:2 7:4 9:8 3:2

3:2 3:2

27  $\frac{3}{8}$

4  $\frac{8}{8}$

Sharp cut  
3  $\frac{6}{8}$

2  $\frac{8}{8}$

fl

fl

fl

fl

trp

trp

trp

trp

sax

sax

sax

sax

vn/vla

bass

perc

elect

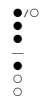
31 **7**  
**16**

**5**  
**16**

**2**  
**8** G.P.

**7** ♩=64 *with assurance*

**5**  
**16**



flute part with dynamics *f*, *p*, *ff* and time signatures **5:8**, **5:4**. Includes a trill on C5 and a note with the instruction "jet inhale inside".

voice part.

trumpet part with dynamics *mp*, *pp*, *p*, *mf* and time signature **6:4**. Includes a trill on C5.

saxophone part with dynamics *mp*, *pp*, *p*, *f* and time signatures **6:4**, **5:4**. Includes a trill on C5.

violin/viola part with dynamics *pp* and time signature **III**, **IV**.

bass part with dynamics *pp* and time signature **6**.

percussion part.

flute part with dynamics *f*, *mf*, *ff* and time signatures **5:4**, **9:8**, **3:2**. Includes a note with the instruction "fingered microtones (not embouchure) around G4".

trumpet part with dynamics *f*, *mf* and time signatures **9:8**, **5:8**. Includes a note with the instruction "1".

saxophone part with dynamics *f*, *mf* and time signatures **5:4**, **3:2**.

violin/viola part with dynamics *f*, *mp* and time signatures **III**, **IV**.

5 8 9 7 16 8 senza tempo

fl

voice

tp

sax

vin/vla

bass

perc

trill on C5 11:12

Independently microtonal glissandi for each string. Alternate III and IV according to rhythm.

M99

pppp ↔ pp

With small brush and hand, rub softly on a amplified snare drum with a piezo. It should be amplified to a "low-tech" speaker near the player.

↓  
 39  
 2/8 =57

senza tempo

↓  
 3/16 =51

senza tempo

muta piccolo

3/8 =57

4/8

fl

voice

tp

sax

vin/vla

bass

perc

pp

p

M9

p

Piccolo

ppp

M97

M96M97

M95

ppp

|| mst

|||

ppp

|||

|||

ppp

45 senza tempo

9  $\text{♩} = 81$   
4  
8

6  
8

fl

tp

sax

vin/vla

bass

with plunger

M97

M95

M97

M97/96

muta violin

Five metal objects on bass drum skin (cymbal, gong, anvil, tube, etc.)

The musical score is organized into four systems, each corresponding to a measure number (1, 4, 5, 6) at the top. The instruments and their parts are as follows:

- fl (flugelhorn):** Measures 1 and 4. Measure 1 features a  $3:2$  ratio and a  $fff$  dynamic.
- voice:** No notation is present in this system.
- tp (trumpet):** Measures 4, 5, and 6. Measure 4 includes  $4:3$  and  $3:2$  ratios and dynamics  $mp$ ,  $mf$ ,  $f$ ,  $pp$ ,  $fff$ ,  $pp$ ,  $f$ ,  $mp$ ,  $p$ . Measure 5 includes a  $5:4$  ratio and dynamics  $f$ ,  $pp$ ,  $f$ . Measure 6 includes a  $5:4$  ratio, dynamics  $f$ ,  $p$ , and a  $pp$  dynamic. Annotations include "123 13", "5:4 overtone gliss + random valves 1 and 3", and "half valve gliss".
- sax (saxophone):** Measures 5 and 6. Measure 5 includes dynamics  $f$ ,  $p$ ,  $mf$ ,  $pp$ ,  $f$ . Measure 6 includes dynamics  $f$ ,  $p$ .
- vln/vla (violin/viola):** Measures 5 and 6. Measure 5 includes dynamics  $pp$ ,  $mf$ ,  $p$ . Measure 6 includes dynamics  $pp$ ,  $mf$ ,  $p$ . Annotations include "pst" and "psp" in boxes with arrows.
- bass (double bass):** Measures 4, 5, and 6. Measure 4 includes dynamics  $mf$ ,  $mp$ . Measure 5 includes dynamics  $ff$ ,  $p$ ,  $mp$ ,  $f$ ,  $mfp$ ,  $ff$ . Measure 6 includes dynamics  $ff$ ,  $mf$ ,  $mp$ ,  $p$ . Annotations include "4:3" and "3".
- perc (percussion):** Measures 1 and 4. Measure 1 includes a  $5:8$  ratio and a  $fff$  dynamic.
- elect (electric guitar):** No notation is present in this system.



fl

tp

sax

vn/vla

bass

perc

elect

into split tone 0

12 2

3:2 3:2

7:4 7:4 3:2

IV III

III IV

5:6

4:5

III corresponds to harmonic node 2/5

*ppp* *f* *pp*

fl

voice

tp

sax

vln/vla

bass

perc

elect

Con  
la

*f* *mp* *f* *mp*

*mp* *f*

*p* *mf*

*ff* *p* *f* *pp* *f* *p* *mf*

*subito pp* ↔ *mp* *f* *p* *pp*

*psp* *msp*

5:4 7:8 5:4 7:4 5:4 11:8 3:2

III IV III IV III I II III IV III I II

IV violin string with a violin bridge on a snare drum.  
A transducer is also attached to the snare drum.

7:8 7:8

59 **3**

**6**

**6**

The musical score is organized into three systems. The first system (left) features a flute (fl) and voice part. The flute part begins with a dynamic of *p* and a crescendo to *f*. The voice part has lyrics "mi" and "fa" with dynamics *f* and *p*. The trumpet (tp) part starts with a dynamic of *mp*. The violin/viola (vln/vla) part includes a section with dynamics *fp*, *pp*, *mp*, and *mf*, and a section marked *pst*. The bass part starts with a dynamic of *f* and a decrescendo to *pp*. The percussion (perc) part begins with a dynamic of *pp* and a crescendo to *f*. The second system (middle) continues the instrumental parts with various dynamics and articulation. The third system (right) concludes the piece with a dynamic of *f* for the flute and voice, and *mp* for the bass. The score includes numerous musical notations such as slurs, accents, and dynamic markings.

11

5  
8

62  
5  
8

5  
8

fl

voice

tp

sax

vin/vla

bass

perc

elect

ff/ pp  $\rightarrow$  fff  $\rightarrow$  f

me di

lu a mai

ppp  $\rightarrow$  f

flute resonates

ff  $\rightarrow$  mp  $\rightarrow$  ff

pp  $\rightarrow$  mf  $\rightarrow$  mp  $\rightarrow$  mf  $\rightarrow$  pp

14:9

3:2 3:2 7:6

5:6

7:6 5:4

6:5

6:5

7:4 3:2 3:2

3:2 5:4

6:7 3:2

just fingerings

IV III

III II I III IV

IV III

IV III

p pp

65 **4**  
**8**

**3**

**7**  
**16**

**5**  
**8**

**5**  
**8**

fi

voice

perc

elect

**cue 1** transducer attached to the instrument  
playing audio files, follow cues for each file

**cue 2**

no *pp* *pppp* il *pp* mio *mp* cor *mp* *p*

po *ff* di per co re la

9:8 7:6 4:3 5 6:4 3:2 9:10 7:4 11:10 8:4

70 1  
16

11  
16

5  
8

3  
8

12

senza tempo  
attaca electronics (solo)

The score is divided into four measures. The first measure (70) is a rest for all instruments. The second measure (11) contains the main musical notation for trumpet, saxophone, and electronics. The trumpet part includes a 'half valve gliss' and various dynamics from *ppp* to *f*. The saxophone part has dynamics from *pp* to *mp*. The electronics part has cues 'cue 1' and 'cue 3'. The third measure (5) continues the notation with dynamics from *mp* to *mf*. The fourth measure (3) features a large sustained note for the trumpet and saxophone, with dynamics from *pp* to *ff*. The electronics part has cues 'cue 2' and 'cue 4'. The score concludes with a series of notes on a single staff.

**cue 1** transducer attached to the instrument  
playing audio files, follow cues for each file

**cue 2**

**cue 1** transducer attached to the instrument  
playing audio files, follow cues for each file

**cue 2**

**cue 3**

**cue 4**

A single staff at the bottom right of the page containing a sequence of notes, likely representing the 'elect' part of the score.

75  $\frac{4}{8}$  13  $\text{♩} = 57$

4  
8

6  
8

fl

trp

sax

vln/vla

bass

perc

elect

*ff*  $9:8$   $5:4$   $3:2$

$5:4$  123  $5:4$   $13:12$

*ff*  $3:2$  *ff=mp* *ff*

$3:2$  *ff*

$7:4$  *ff* *mf* *ff*

$3:2$   $3:2$   $3:2$   $5:4$   $5$

teeth on reed, unstable

vertical bow, III and IV strings

growl

Drum notation for the first section (4/8 time, 3 measures):

- Measure 1: Snare (r), Bass (f)
- Measure 2: Snare (r), Bass (f)
- Measure 3: Snare (r), Bass (f)

Voice staff, empty.

Trumpet staff with wavy line indicating a tremolo or sustained sound.

Saxophone staff with wavy line indicating a tremolo or sustained sound.

Violin/Viola staff with dynamics: *p*, *mf*, *p*, *mf*, *f*. Includes a 9:8 ratio bracket over the first two measures.

Bass staff with a wavy line indicating a tremolo or sustained sound.

Electric guitar staff with a wavy line indicating a tremolo or sustained sound.

Percussion staff with dynamics: *f*.

Electronics staff with a wavy line indicating a tremolo or sustained sound.

Drum notation for the second section (3/8 time, 3 measures):

- Measure 1: Snare (f), Bass (f)
- Measure 2: Snare (f), Bass (f)
- Measure 3: Snare (f), Bass (f)

Time signatures: 5:4, 9:8, 7:4.

Trumpet staff with dynamics: *mp*, *p*, *pp*. Includes a box labeled "with plunger" and a plus sign (+).

Saxophone staff with dynamics: *pp*, *p*, *mp*.

Violin/Viola staff with dynamics: *pp*. Includes Roman numerals III and IV.

Bass staff with dynamics: *pp*.

Percussion staff with dynamics: *ff*. Includes a 5:4 ratio bracket over the first two measures.

Electronics staff with a wavy line indicating a tremolo or sustained sound.



fl

voice

trp

sax

trill on C5

vln/vla

bass

perc

elect

so - no - co - me - la - bar

*mf* *pp* *ppp* *p*

*p* *mp* *smfz* *pp*

*ffz/imp* *fff*

*ffz/imp* *f*

*ffz/imp* *f*

*pp*

teeth on reed  
relative pitches

sax

mf

ppp

3:2 3:2 5:6

vin/vla

f

p

3:2 5:4 3:2 3:2

bass

IV

psp

f

mp

3:2 3:2

perc

ff

f

pp

3:2 5:4 3:2 6:4 5:4 7:4

elect

fl

voice

tp

sax

vn/vla

bass

perc

elect

half valve gliss 4:5

pp

mf

M75

pp

movement between half-harmonic and harmonic finger pressure

pp

stop playing before next bar just enough time to remove mouth piece

tongue ram without mouthpiece 7:4

trill on C5

alla tromba 7:4

alla tromba highest pitch

pp ↔ mp etc

psp bow stop at string

clbjetè 3:2

IV

f mf

pst III

III II 7:4

II III

f

fingered microtones (not embouchure) around  $g\sharp_4$

*f* *mf* *ff*

ba - r - ca\_ e co - me l'o - ce V.a no

*f* *mf* *p*

M94 *n* *p*

*f* *p*

*p* *f* *mp* *ff*

perc

elect

fl

voice

li bi di no so

tp

sax

ppp

mp

p

mf

ppp

p

ppp

mp

7:4

vin/via

bass

loosen the III and IV as much as hitting between the strings and the fingerboard start to occur

perc

elect

**2**  
**8**

**4**  
**8**

The musical score is organized into three systems, each with a 4-measure bar. The instruments and their parts are as follows:

- fl (Flute):** Features complex rhythmic patterns with dynamic markings such as *fff*, *f*, *ff*, *sfz/ mp*, *mf*, *ff*, *p*, *f*, *ff*, *mp*, and *f*. It includes time signature changes to 3:2 and 6:4.
- voice:** A vocal line with a treble clef, currently blank.
- tp (Trumpet):** Includes a section labeled "halfvalve gliss" with a dynamic marking of *mf*. It features a 4:5 time signature change and dynamic markings of *pp*, *mp*, *pp*, and *p*.
- sax (Saxophone):** Features a melodic line with dynamic markings of *sfz/ pp*, *mp*, *p*, *mf*, and *f*.
- vln/vla (Violin/Viola):** Includes a section with a 6:5 time signature change and dynamic markings of *fff*, *mp*, *mp*, *fff*, *mp*, and *p*.
- bass:** A bass line with a bass clef, currently blank.
- perc (Percussion):** A percussion line with a double bar line, currently blank.
- elect (Electric):** A line for electric instruments with a treble clef, featuring a dense rhythmic pattern of vertical lines.

The score is heavily annotated with dynamic markings, time signature changes, and performance instructions like "halfvalve gliss".

108  
senza tempo

**G.P.**  
ca. 45 seconds

senza tempo  
ca. 2 minutes

fl

voice

tp

sax

vn/vla

bass

perc

elect

growl

3:2

2 4:5 12 0

alla tromba

6:5