

Andrea Sarto  
(1979)

# come frecce nella tua mano

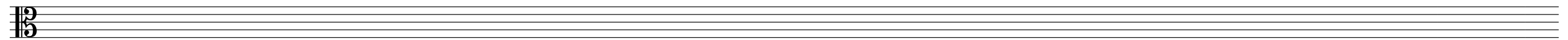
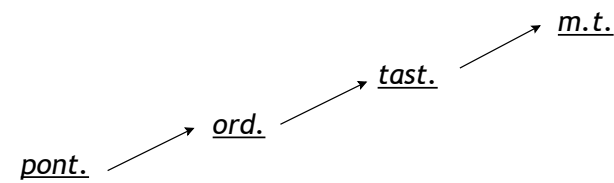
for Viola & Live Electronics (2010)  
duration 6'30"

## Legenda - Performance Remarks

tap  
Tapping

Vibrato d'Arco

Tune the A string to G#



Passages between different positions

m.t. moitié de la touche: middle of the fingerboard, between the end of the instrument case and the neck

tast. on the fingerboard

ord. ordinario

pont. near the bridge



Music is written in proportional notation. Always play with flexibility.

Sound of the viola is captured by two microphones placed on the body of the instrument.

a DPA for strings, OMNI, placed on the bridge

a AKG contact, placed under the neck of the viola - precisely, under the nut.

DPA is used to take the global sound.

AKG is used to detect tapping.

The electronic transformation mainly consists in filtering the sound of the instrument - precisely, the signal coming from the DPA microphone.

Filtering is done in three different ways, each of them performed by a different module programmed in a Max/MSP patcher.

1) a formant filtering, by passing the signal through a spectraldelay module; frequencies, amplitudes and bandwidths are established for each formant.

2) a mobile single-band filtering; the band frequency is determined by a centroid detection, which constantly changes through time - according to the energy of the spectrum.

3) a resonant filtering, by passing the signal through models of resonance.

Models of resonance are determined by analysis: a SDIF file has been created by Audiosculpt, and its content is analysed and treated by Open Music. The result is a list of frequency and amplitudes used to build the models.

All the coming out signals are then mixed in real-time using a midi controller and a careful listening, according to the electronic performer's taste.

Electronic part is not written in the score. Patcher and relative instructions for performance are available on request; contact: andrea.sarto@gmail.com

# come frecce nella tua mano

per viola ed elettronica

TEMPO DI PROFONDI RESPIRI

about 18"

about 18"

**System 1:**  
Resultantes: **1** *moitié de la touche*  
Alto: *tap*, *ff PP sempre e costante*, *pont.*, *immobile stop the bow dead on wood*, *silence*

*during this passage the bow touches the border of the instrument, producing a subtle breath...*

**System 2:**  
Alto: *m.t.*, *tap*, *ff PP*, *arrive to this position with a fast and fluid movement*, *pont.*, *immobile come prima*, *silence*, *jump immediately to the next system*

**System 3:**  
Alto: *pont.*, *pp sempre e costante*, *imperceptible bow changing*, *m.t.*, *pp*, *pont. tap*, *f*

**System 4:**  
Alto: *pont.*, *pp*, *tap*, *ff PP*, *fulmineo e leggero*, *pont.*

**System 5:**  
Alto: *pont.*, *tast.*, *pont.*, *flautando*, *pp*, *f*, *pp subito*, *rapido PP*, *vibrato d'arco*, *tap*, *pont.*, *m.t.*, *tap*, *f*

about 18" 3 about 18"

*pont.* *tast.* *pont.* *tast.* *pont.* *flautando* *flautando*

*pp* *f* *pp* *fpp* *f* *pp* *f*

*pont.* *tr.* *fading out the trillo, without rall..*

*f* *pp* *mf* *pp* *f*

*poco più lento* *pont.* 4 5 6 *tap* *tr.* *x 3* *più svelto* *pont.* *tast.* *pont.* *poco più lento come prima* 7 8 *tap* *x 2*

*f* *pp* *mp* *pp* *f*

*più svelto* *pont.* *tast.* *pont.* *tast.* *pont.* *lento, con durezza di cuore* 9 10 11 12 *tap* *tr.* *x 4*

*pp* *poco* *p* *pp* *p* *pp* *f* *pp*

about 18" about 18"

*pont.* *m.t.* *pont.* *m.t.* *tast.* *m.t.*

**13**  
**14** x 2

1) *pp*  $\leftarrow$  *p*  $\rightarrow$  *pp*  
2) *pp*  $\rightarrow$  *mp*

*pp* *mf* *pp* *ff*

*tap*

*m.t.* *pont. flautando*

**15**

*f*  $\rightarrow$  *pp*

play on the string at the written fingering;  
a sort of bizarre multiphonic is produced

*mf f*

*pont.* *tast.* *tast.* *pont.* *tast.* *pont.* *m.t.* *pont.* *tast.* *ord.* *ord.* *ord.* *tast.* *tast.* *tast.* *tast.* *pont.*

**16** **17**

*flautando*

*mf*  $\rightarrow$  *pp*  $\leftarrow$  *f*  $\rightarrow$  *p*  $\leftarrow$  *f*  $\rightarrow$  *p*  $\rightarrow$  *ff*  $\rightarrow$  *p*  $\leftarrow$  *f*  $\leftarrow$  *ff*  $\rightarrow$  *sff*  $\rightarrow$  *mf*  $\rightarrow$  *f*

via via incalzando... poco accel

*pont.* *tast.* *pont.* *ord.* *pont.* *ord.* *pont.* *m.t.* *pont.*

**18**

*f*  $\rightarrow$  *p*  $\leftarrow$  *mf* poco accel  $\rightarrow$  *ff* *pp subito*

about 18" about 18"

ord. pont. pont. m.t. pont. ord. tast. tast. ord. pont. pont. ord.

**19**

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

*accel.* *rall.*

**20** m.t. pont. ord. tast. pont. tast.

**21** ord. pont. tast. pont. tast.

**22** tap x 3 I II I II III

*f* *pp* *fff* *p* *f* *p* *f* *p* *f* *p* *f*

*accel.* *rall.*

(a tempo)

*tast.* ord. tast. ord. pont. m.t. ord. m.t.

**23**

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

*accel.* *rall.* (a tempo)

*m.t.* III IV II I

*p* *mf* *pp*

about 18" about 18" 7

*m.t.* 24 *m.t.* *pont.* *tast.*

*pont.* *m.t.*

*silence, immobile 3"*

*pp*

*pont.* *m.t.*

*silence, immobile 1"*

*multiple et avec une vitesse irrégulière*

*ppp*

...keep moving the bow always following the arc;  
now it's passing over your head directed to the back....

lift the bow and move it till over your head,  
starting to describe an arc in the air...

...it's going down now, to your right leg,  
and the arm is relaxing....

during and after the movement keep looking to the bow

...and it stops here, laying along your leg.

25

*multiple et avec une vitesse irrégulière* *solo sfiorando*

*ppp* *mf* *etc* *ppp sempre*

*varying the fingering pressure from a light touch to tapping, according to dynamic* *keep looking to the bow till the end*

*cresc. et dim. ad libitum, irrégulièrement*

26

II tap  
 III  
 IV

tap and gliss to the neck,  
 "scraping" the strings lengthwise  
 with all fingers

*f* *p subito*

short  
 ^  
 silence, immobile

tap

*f* *p subito*

ad lib.  
 silence, immobile

keep the fingering till the end and stay immobile

$$x = \frac{v^2}{g} \sin(2\theta)$$