

Tolga  
Yayalar

# ...CERTAINLY THE MACHINE WILL WEAR OUT

for flute, viola and piano

**... certainly the machine will wear out**  
for Flute, Viola and Piano

*written for and dedicated to*  
*Laura Manko, Gamze Kırtıl and Cem Önertürk*

*“If the injustice is part of the necessary friction of the machine of government, let it go, let it go; perchance it will wear smooth — certainly the machine will wear out. If the injustice has a spring, or a pulley, or a rope, or a crank, exclusively for itself, then perhaps you may consider whether the remedy will not be worse than the evil; but if it is of such a nature that it requires you to be the agent of injustice to another, then, I say, break the law”*


- Henry David Thoreau, "Civil Disobedience"


As a composer, I was always fascinated by mechanical sounds. So far, I had only used the machine as a metaphor in my music. This time I wanted to take the concept of machine as a metaphor and use it in the music almost literally by modeling some machine sounds. In this piece there are 7 industrial machines. These were analyzed in detail and then transferred to musical notation. Instruments too, were stripped from their traditional sound worlds, were subjected to sort of an industrialization process. Instruments are no more those shiny bourgeois objects but more like individual parts of an assembly line.


When machines are used as a metaphor to describe an organization, they refer to the fact that each individual has a very simple and ordinary role, it is done in a strict discipline, resistance is always kept under control, and they are also subjected to planned change. So all these qualities are reflected in the music. Each machine goes to a transformation process and when it is completely dissolved a new one is reformed.


Comments on Notation ad Performance Techniques

General

 quarter-tone flat

 quarter-tone sharp


 crescendo from / diminuendo to silence


 explosive/exponential crescendo.





play as fast as possible

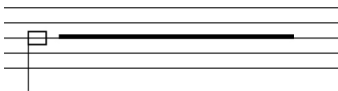

Flute


 slap tone / percussive


 key click (ideally with no breathed pitch)


 tongue ram


 key click with closed embouchure. It should sound a 7th lower.

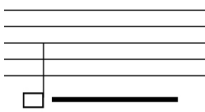
  Aeolian sound. Air sounds with pitch.


 Aeolian sound.


 Half breath, half normal sound

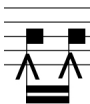
 Normal flute sound

 gradual changes between aeolian and normal sound


 *tonlos*, without any pitch, closed embouchure (lips closed around

 exhaling

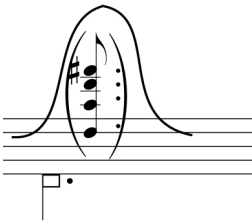
 inhaling




short noisy taking of breath




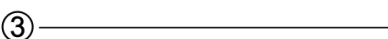
jet whistle

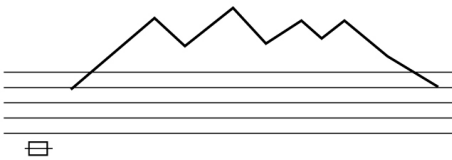


overblow, produce overtones

 ① overblow, produce 1st harmonic

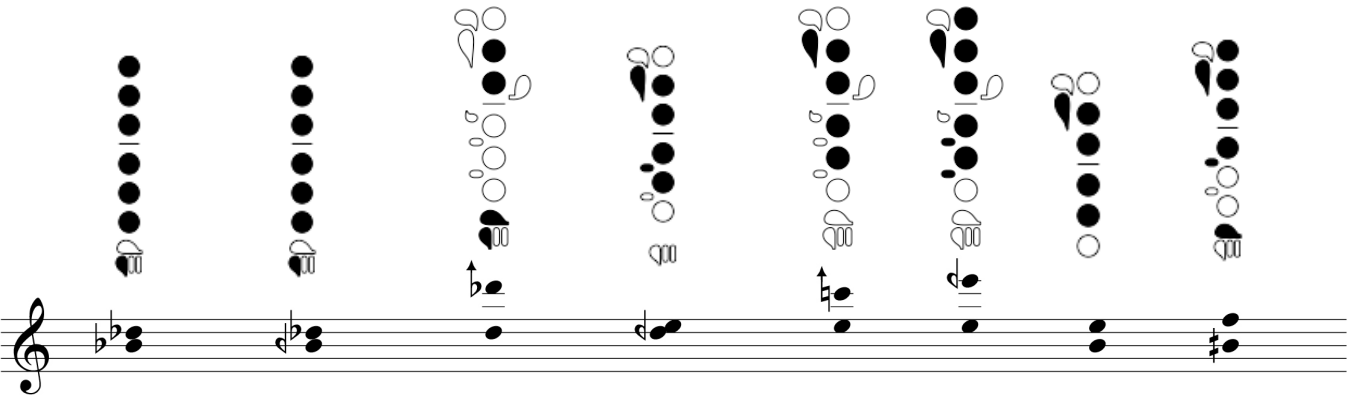
 ② overblow, produce 2nd harmonic

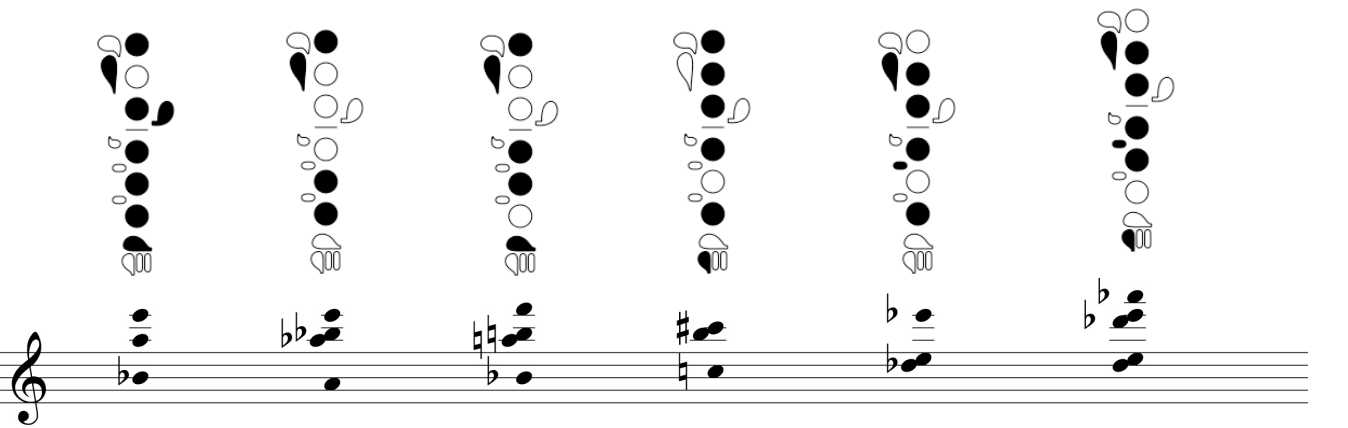
 ③ overblow, produce 3rd harmonic



whistle tones

Flute Multiphonics





Viola

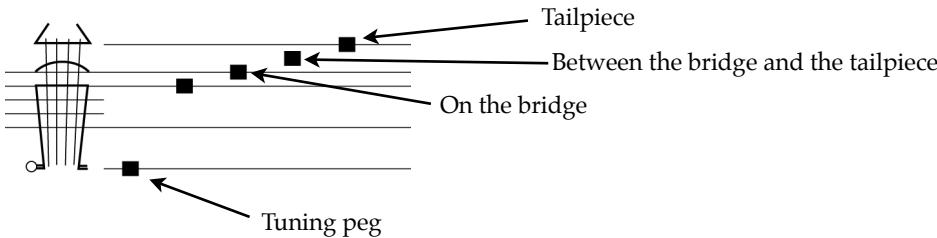
In addition to standard clefs, two other clefs are used in the piece:

I.



Behind the bridge clef: Each space indicates a string on which an action is to be performed behind the bridge

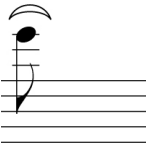
II. The second clef shows where to bow on the instrument.



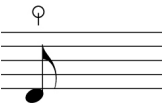
*s.p.* : sul ponticello

*a.s.p* : alto sul ponticello (very close to the bridge but not on the bridge)


*s.t.* : sul tasto



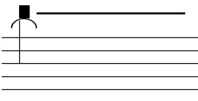
Hard pizz. Should sound like a noisy click with barely any pitch



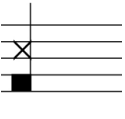
Bartok pizz.



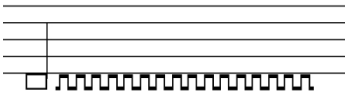
Col legno battuto, with the wood of the bow, barely any pitch is heard




Toneless bowing. Bow on the bridge of the 4th string if possible. Right hand should mute al the strings to prevent any unintended vibrations.




Dampen string by touching it loosely with finger (quasi harmonic fingering); additional loosely touching finger prevents possible harmonics from sounding. Effect is that of pitch-colored noise.




A distorted scratching sound should be produced with pressed bowing, which should be as stable in its pitch structure as possible!



Amount of over pressure to be applied




A short accented crash sound



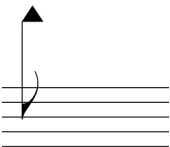
Play behind the bridge



Abruptly stop the crescendo by keeping the bow on the string.



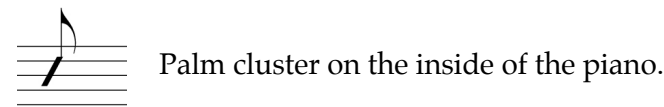
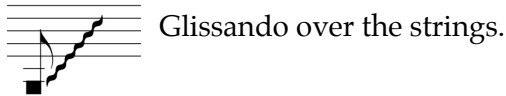
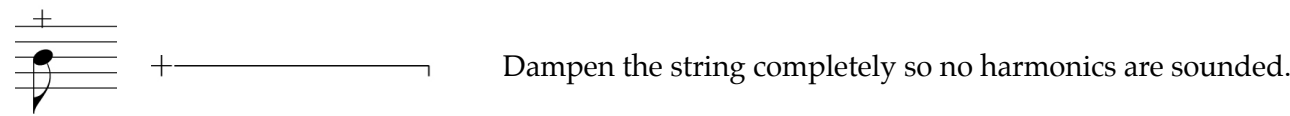
Semi harmonics. The string should be half depressed to produced a non-focused, almost veiled sound.



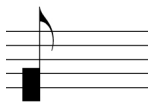
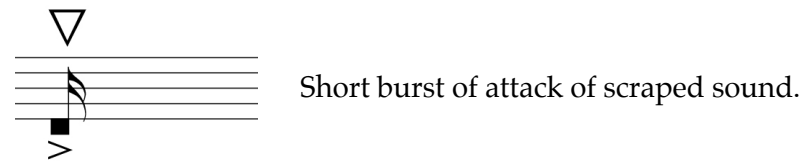
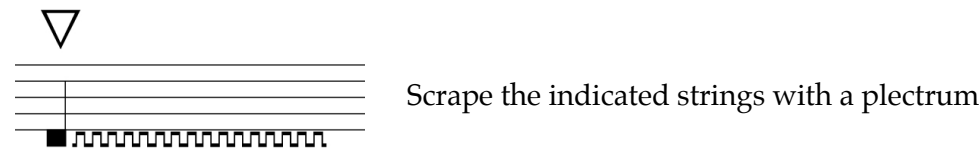
Play a very high random note.

Piano

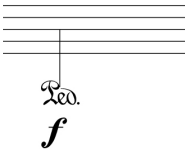
The following pitches should be prepared so that they produced just a hammer sound and no pitch.  
For the lower 5 strings, normal piano mutes could be used. For the two high notes, an object like play-dough or patafix would do the job just fine.



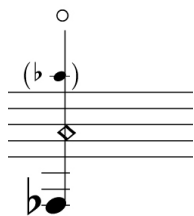
Action inside the piano can be executed either by



Cluster on the keys



Pedal action attack. Stamp foot down to create a big pool of resonance.



Touch the appropriate node to create the desired harmonic. All the harmonics in the piece are 5th harmonics (it produces a pitch that is two octaves and a major third higher)

...certainly the machine will wear out

Tolga Yayalar \*1973

**fiery and temperamental**  
 Flute  
 Viola  
 Piano

6  
 Fl.  
 Vla.  
 Pno.

Fl. *pp* *p* *pp* *mf* *p* *p < mf > p* *mp* *p*

Vla. *f* *mf* *f* *p* *mf* *f*

Pno. *sf* *f* *p* *p* *mf* *f* *mp*

*8va*

*Reo.*

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

Vla. *pp* *f* *mf* *f* *sf* *pp* *f*

Pno. *ff* *f* *mf* *ff* *f* *mp* *mf* *p* *sf*

*8va*

*Reo.*





6 (♩=67) *inward and murky*

Fl. *mp* *pp* *p* *p*

Vla. *pp* *mf* *p* *pp*

Pno. *mf* *pp* *mf* *mf* *mf* *mf* *mf*

INSIDE KEYS

8va 8va 8va 8va

Leo. sul pont.

c.l. batt. ricochet

Fl. *mp* *p* *mp* *p* *mf* *mp* *f* *"f"* *p* *pp*

Vla. *f* *mf* *p* *p*

Pno. *mf* *p* *mf* *pp* *mf* *ppp* *p*

INSIDE KEYS

8va 8va 8va 8va

Leo. ad. lib.

c.l. batt. a.s.p. flaut.

Fl. *p* *mp* *pp* *f* *p* *mp* *pp* *precise and mechanical* **3x**

Vla. *mp* *mf* *f*

Pno. *p* *f* *mf* *ff*

(Reo.)

Fl. *f* *p* *pp* *mp* *pp* *f* *p* *pp* *mp* *p* *f* *p* *pp* *mp* *pp*

Vla. *mf* *f* *mf*

Pno. *mf* *ff* *ff*

(Reo.)



[illegible]

The image displays a musical score for three instruments: Flute (Fl.), Viola (Vla.), and Piano (Pno.). The score is written for measures 77 through 84.

- Flute (Fl.):** The part begins with a dynamic of *mf*, followed by *mp*, and then *f*. It features rapid sixteenth-note passages, often beamed in groups of four, with slurs indicating phrasing. The dynamics fluctuate between *mp* and *f*.
- Viola (Vla.):** The part starts with a *f* dynamic and a *sul pont.* (sul ponticello) instruction. It features a long, sustained note that gradually decreases in volume to *ppp* (pianississimo) by measure 84.
- Piano (Pno.):** The right hand (RH) features octaves marked *8va* and includes triplets and sextuplets. The left hand (LH) provides harmonic support with chords and moving lines. Dynamics include *f* and *sf* (sforzando).

The image displays a musical score for three instruments: Flute (Fl.), Viola (Vla.), and Piano (Pno.). The score is written for measures 81 through 84. The Flute part features a melodic line with dynamic markings of *mf* and *ff*. The Viola part is mostly silent, with a few notes in measure 81. The Piano part includes both hands, with the right hand playing a complex melodic line and the left hand providing harmonic support. The score is marked with various dynamics and articulations, including *mf*, *ff*, and *8va* (octave).

[illegible]

Fl. *inward, kinteic*  $\text{♩} = 74$  *ppp* *p* *pp* *f* *overblow*

Vla. *tonlos* *a.s.p.* *p* *pp* *pp* *p* *f*

Pno. *8va* *f*

Fl. *pp* *mf* *p* *mf* *p* *mf* *do not move!*

Vla. *a.s.p.* *p* *f* *c.l. bgtt.* *p* *mf* *mf* *do not move!*

Pno. *pp* *f* *do not move!* *8va*

Fl. <sup>101</sup>

*ppp* *p* *ppp* *ppp* *p* *ppp* *p* *ff*

tonlos → a.s.p.

Vla. <sup>101</sup>

*pp* *f* *pp* *f* *pp* *f*

Pno. <sup>101</sup>

*f* *mf* *f* *mf*

Reo. *f*

(t k t k ...)

Fl. <sup>105</sup>

*f* *p* *f* *mf* *p*

overblow

whistle tones

Vla. <sup>105</sup>

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

Pno. <sup>105</sup>

*pp* *mf* *f*

Reo.



109 *senza misura*

Fl. *mp* *p* *f* *p* *mf*

Vla. *f* *sf* *mp* *mf*

Pno. *mf* *mp* *mp* *f* *mp* *f*

(*Leo.*)

112

Fl. *mf* *f* *p* *p*

Vla. *sf* *mf* *f* *pp* *c.l. batt.*

Pno. *f* *ppp* *pp*

(*Leo.*)

Fl. ♩ = 78

Vla.

Pno.

(Leo.)

Measures 115-120. Flute (Fl.) plays a melodic line with dynamics *p*, *mf*, *p*, *f*, *pp*, and *ff*. Viola (Vla.) plays a series of chords and a triplet, with dynamics *sfz*, *p*, *f*, and *ff*. Piano (Pno.) plays octaves (8va) with dynamics *f* and *fff*. A conductor's baton (Leo.) is shown at the bottom.

Fl.

Vla.

Pno.

Measures 119-124. Flute (Fl.) plays a melodic line with dynamics *<f> p* and *ff*. Viola (Vla.) plays a series of chords and a triplet, with dynamics *ff* and *f*. Piano (Pno.) plays octaves (8va) with dynamics *fff* and *f*. A conductor's baton (Leo.) is shown at the bottom.

The musical score for 'The Great Wall' by Tan Dun is presented in a multi-staff format. The instruments are Flute (Fl.), Viola (Vla.), Piano (Pno.), and Cello/Double Bass (Cello). The score is divided into measures, with a key signature of one flat and a time signature of 3/4. The tempo is marked as 'moderato' and the meter is 3/4. The score includes various dynamic markings such as *p*, *ff*, *fff*, *mf*, and *f*. Performance instructions include 'overblow' for the Flute and 'tonlos on the bridge' for the Viola. The score also features a 'Cello' section with a 'Ped.' (pedal) marking. The score is written in a standard musical notation style, with notes, rests, and other musical symbols clearly visible.

The musical score consists of three staves: Flute (Fl.), Viola (Vla.), and Piano (Pno.).

- Flute (Fl.):** The staff begins with a treble clef and a key signature of one sharp (F#). The tempo is marked 128. The music features dynamic markings of *mf*, *p*, and *pp*. There are two instances of "whistle tones" indicated by a jagged line above the staff. The piece concludes with a final dynamic of *p*.
- Viola (Vla.):** The staff begins with a treble clef and a key signature of one sharp (F#). The tempo is marked 128. The music features dynamic markings of *ff*, *pp*, and *f*. The piece concludes with a final dynamic of *p*.
- Piano (Pno.):** The staff begins with a treble clef and a key signature of one sharp (F#). The tempo is marked 128. The music features a dynamic marking of *8va* (octave) and a final dynamic of *8va*.

Fl. *pp* *p* *pp* *p* *f* *sf* *p* *mf*

Vla. *pp* *mf* *pp* *f* *pp*

Pno. *mf* *f*

*8va* *f*

*Reo.*

*72*

*tonlos* *tonlos* *behind the bridge* *tonlos on the bridge*

Fl. *precise and mechanical* *4x* *whistle tones* *f* *p* *pp* *mf* *f* *p* *pp* *mf* *pp* *mf*

Vla. *c.l. batt.* *f* *f* *mf* *f* *mf*

Pno. *hit the frame* *f* *f* *f* *p* *f* *p*

*8va* *f*

*Reo.* *f*

149 **4x**

Fl. *f* *p* *f* *p* *sf* *mf*

Vla. *f* *mf* *f* *mf* *f* *mf*

Pno. *f* *p* *f* *p* *ff* *p*

*f* *f*

152 **4+1**

Fl. *f* *mf* *f* *mf* *f* *mf* *f* *mf*

Vla. *f* *mf* *f* *mf* *f* *mf* *f* *mf*

Pno. *f* *p* *f* *p* *f* *p* *f* *p*

accel. -----

○ -----

♩ = 82 *complex and colourful*

3x

Fl. 156 *sf p ppp mf pp sf p ppp "ff,, p*

Vla. 166 *complex and colourful mf "f" mf f mp f p*

Pno. 156 *f p p mp pp ppp*

8va

very mechanic, like a train

Fl. 159 *f p f p f*

(t k t k ...)

overblow

Vla. 159 *f p mf p*

III

Pno. 159 *mf mp mf mp mf mp*

pp ppp pp ppp pp ppp

[illegible]

*Extremely Mechanic*

Fl. 173 2x 2x 2x 3x

Vla. 173 c.l. batt. tonlos III 3 f mf f mf f mf f mf f

Pno. 173 8va f mf mf f mf f p

Fl. 177 2x 3x 3x

Vla. 177 c.l. batt. 3 f mf f f f f f f

Pno. 177 8va f p f f f 3 pp



182

Fl. *f* *mf* *sf* *f* *mf* *sf* *f* *mf* *sf* *f* *mf* *sf* *f* *mf* *sf*

Vla. *f* c.l. batt.

Pno. *f* *mf* *f* *mf* *f* *mf* *f* *mf* *f* *mf*

key click w/ closed embouchure

2x

187

Fl. *f* *mf* *sf* *f* *p* *mf* *mp* *ff*

Vla. *p* *f* c.l. batt.

Pno. *f* *f* *ff*

Repeat untill piano is ready

Play only once and then remove the lower 5 muts

① ② ③

$\text{♩} = 82$  *impetuous*
 $\text{♩} = 65$

Fl. 192

*"sh"* **mf** *impetuous*

*"sh"* **mf** *impetuous*

**pp**

Vla. 192

*impetuous*

*a.s.p* **pp** *p*

Pno. 192

*precise and mechanical*

*8va*

**f**

*mf* *Rea.*

*mf* *Rea.*

*Rea.* **f** *Rea.*

Fl. 195

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

Vla. 195

*a.s.p* **pp** *p* **pp** *p pp* **mf**

*always very mechanical*

*8va*

**mf** **f** *sempre*

*Rea.* **f** *Rea.*

*Rea.* **f** *Rea.*

Fl.

Vla.

Pno.

198

*p*

*mp*

*p*

*pp*

*mp*

*a.s.p*

*p*

*p*

*mp*

*p*

*a.s.p*

*p*

*a.s.p*

*8va*

*f*

*f*

[illegible]

6 5  
← ♪ = ♪ → (♩=78) *fiery and temperamental*

204

Fl. *ff* *sub.* *f* *mp* *ff*

Vla. *mf* *c.l. batt.* *f*

Pno. *fff* *f* *mp* *fff*

208

Fl. *ff* *f* *ff* *sf* *sf*

Vla. *ff* *s.p.* *p*

Pno. *f* *sf* *fff* *ff*

Fl. 212 *f* *sf* *sf* *ff* *sf* *sf* *f*

Vla. 212 *f* *f* *ff* *s.p.*

Pno. 212 *ff* *sfz* *fff* *ff*

8va 8vb

Fl.

217

6

*f*

*f*

*p*

*mf*

Vla.

217

*s.p.*

3

*f*

*f*

*mf*

*a.s.p*

*f*

Pno.

217

*sf*

*sf*

*ff*

3

*fff*

8<sup>va</sup>

6

3

8<sup>va</sup>

8<sup>vb</sup>

8<sup>vb</sup>

*p*

8<sup>va</sup>

221

Fl.

*mf* *mf* *f* *ff*

ord.

overflow

Vla.

*ff* *mp*

Pno.

*fff*

(8<sup>va</sup>)

223

Fl.

223

Vla.

*f*

let the sound die out completely

Pno.

*ppp*

Let.