

::: bass clarinet in B $\flat$  :::

This PDF is designed for printing on 11" x 14" size paper, but nothing smaller.  
Notehead sizes may be too small for a performance view on smaller size paper.

*composed for NOMOS*

# The Fiction of Time Destroyed

*Desbaratada la Ficción del Tiempo*

[ for alto flute, bass clarinet, cello, and electronics ]

Louis Goldford (2015)

[ *dur. ca. 8:25* ]

[ *instrumentation* ]

[ *software* ]

alto flute in G  
bass clarinet in B $\flat$   
cello  
electronics

Software for the Electronics part is available as a single download in the form of patcher files compatible with Max/MSP v6.1 or higher ([www.cycling74.com/](http://www.cycling74.com/)). Alternatively, the piece runs in the free version Max Runtime, also from the above web address.

Email [ljgoldford@gmail.com](mailto:ljgoldford@gmail.com) for questions or for software requests.

Additionally, the piece uses a number of externals from 3rd-party libraries whose rights are bound by their original licenses. Some of these libraries must be installed separately. Links to these external libraries are found in the README.txt file included with the download. Without these externals, the piece will not run properly.

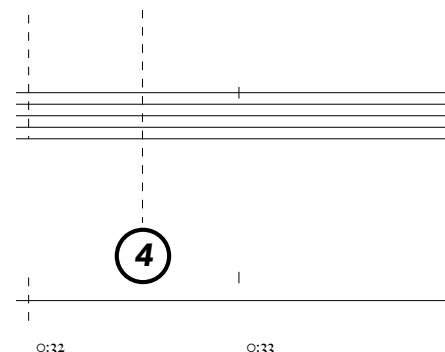
[ *dur. ca. 8:25* ]

[ *setup* ]

The piece requires an Electronics Assistant to launch cues and operate the patch during performance. A complete guide for installing and running the software, including screenshots of the user interface, is provided in the download. A performance will need —

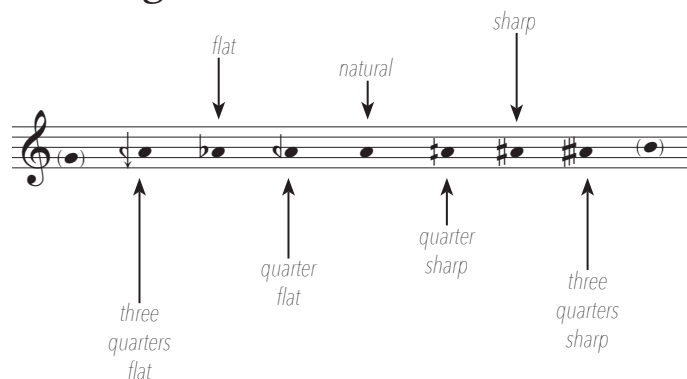
1. a computer running Max v6.1+ at mix position;
2. a DAW / audio interface connected to the laptop (recommended: MOTO 828 mk. III)
  - > *The piece runs in either stereo or 4-channel surround;*
3. 2 condenser microphones placed appropriately between & overhead of the 3 performers;
  - > *preferably the mics should be set to a cardioid polar pattern;*
4. a mixing console, amplification, and loudspeakers.
  - > *Digital reverb and effects are all implemented in the performance patch.*

Cues for the Electronics part appear in the lowermost staff as circled, italicized numbers (right). The Electronics Assistant executes these events by pressing the computer's spacebar to advance the sequence, number-by-number. Most of the time these cues occur at the nearest second, though occasionally they may align with instrumental events between second marks, as in the example.



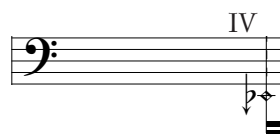
[ *performance notes* ]

[ *Tuning* ]



Tuning is primarily at the resolution of quarter tones.

Additional accidentals are used to denote 8th-tone (i.e. up to appx. 25¢) alterations from notated pitch. This only occurs in the cello part to indicate slight deviations from nodal points on the string necessary to produce multiphonics —



In this example from 5:03 (p. 14), the accidental is used to indicate up to an 8th tone lower than the normal position for an E $\flat$ 2 on the C-string.

[ *performance notes* (cont.) ]

[ *Proportional Notation* ]

Each horizontal space marked by a tick mark or a dotted barline indicates one second of time. These are treated as measures; the normal rule applying to accidentals carrying through the bar applies here.

In place of time signatures, large cardinal numbers are used to collect seconds into larger duration groups that form phrases. These groupings are also marked by the dotted barlines, forming a kind of synthetic macromeasure, though no ictus should be felt or achieved in performance.

In place of measure numbers, time is always indicated second-by-second below the lowest staff: the Electronics cue staff. However, time is more flexible than it may appear. Individual seconds may be “stretched” in performance at the discretion of the performers or conductor, though the overall shape of phrases should be preserved. The Electronics part includes both *fixed* and *live* elements, and while precise timing is not desired, it is sometimes more-or-less necessary in order to sync with certain elements in the Electronics part.

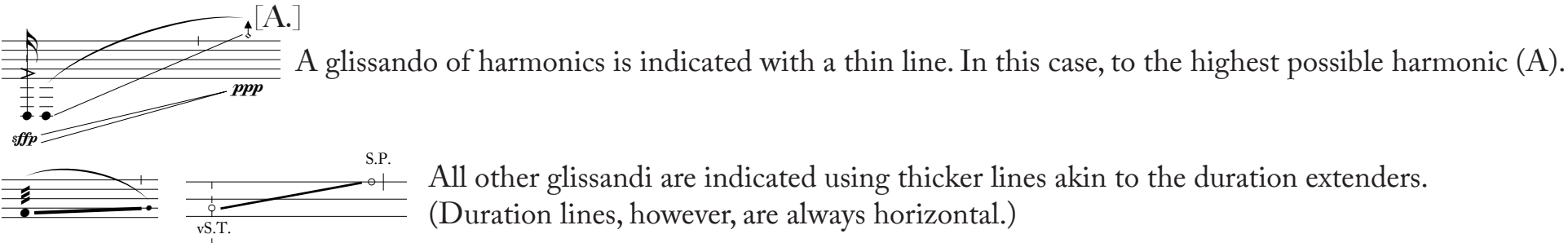


All notes should be executed as extremely short pitch events, unless their durations are extended by any of the means demonstrated above. Duration is indicated with the combined effects of beams (A), extension bars, and slurs (B). It should be understood that in a series of notes grouped under a single slur (C), the final pitch in should always be extremely short as in un-slured notes, unless of course this final note’s duration is also extended (D).

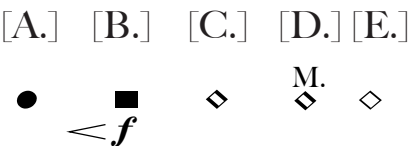
Notehead size does *not* indicate duration, dynamics, or the relative prominence of pitched events. Smaller noteheads are used purely to facilitate horizontal proportions between notes. In the example above (E), about 10 pitches should occur in the space of one second, and it would be nearly impossible to represent this using regularly-sized noteheads. Their size, however, should not affect their relative dynamics or duration.

Perfomance parts are printed on 11” x 14” — Ideally performers should not read from smaller printings, such as 9” x 12”, precisely because of the need to use smaller noteheads. The examples above are already smaller than the actual size of the parts / score, and might suggest what it would be like to read from a smaller printing.

[ *Glissandi* ]




[ *Noteheads + Articulations* ]

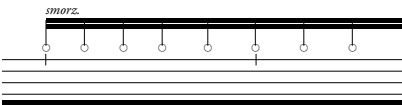


Normal notehead indicating pure pitch and rhythm (A).  
Tongue ram, always preceded by a slight crescendo of pure air (B).  
Diamond notehead indicating harmonic sound (C).  
Diamond notehead with “M” indicating a multiphonic sound (D).  
A larger, thinner diamond indicating aeolian sounds on the flute (E).

[ *performance notes* (cont.) ]



*Fluttertongue* — *alveolar* and *uvular* methods may be used interchangeably where appropriate, depending on the tessitura of the instrument, etc.



*Smorzato* — produced either with the jaw or the diaphragm. The lower beam indicates the duration of the note event; the upper beam indicates the length of the smorzato.

[ *Gradual transitions* ]

[A.]      [B.]      [C.]

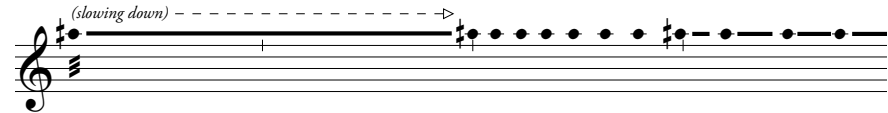
○ —→ ● —→ ●

Full air sound (A).

Half-air sound (B).

Full tone (C).

[D.]



----->

A dotted line indicates gradual rearticulation and is usually accompanied by the note “*speeding up*” or “*slowing down*,” following the transition between an unmeasured fluttertongue or tremolo to a rapid rearticulation of the tongue or bow (D). The exact point of transition between the rapid, unmeasured tremolo and the tongue / bow is left to the discretion of the performer.

[ *Alto flute* ]

[A.]      [B.]

[t]      [t,k]

≡≡≡      ≡≡≡

◇      ◇◇

Aeolian sounds usually appear with bracketed sibilant consonants, to be spoken with a burst of air into the instrument — a single attack (A) or a group of consonants sounds to be freely permuted as the attacks for a range of localized aeolian noteheads (B).

The particular consonant sounds used are —

- [t] as in “toy”

[s] as in “sit”

[sah] a longer version, as in “Samedi”

[k] as in “kite”
- [sh] as in “shout”

[ch] as in “chew”

[f] as in “follow”
- [p] as in “paw”

[ps] as in “Psst! Are you there?”

≡

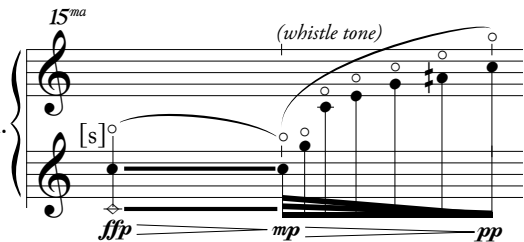
●

◇

A notehead with a diamond articulation indicates a sharp breath attack — without tongue.

This might be considered a semi-pitched sound.


Alto Fl.



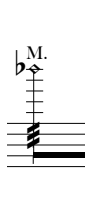
*Balayage d'harmonie* — Whistle tone sweep of partials on a given fundamental. Indicated partials may be approximate.

[ *Alto flute multiphonics* ]

[A.]



[B.]



Two types are employed — The first involves a sharp articulation on a low fingering, producing audible spectra above it, such as the example low C above (A). Bands of partials to focus on are notated above the diamond fundamental. The second type involves *underblowing* fingerings in the 3rd octave of the instrument (B). Underblowing in this way easily produces multiphonics such as the following (the pitches contained in the multiphonics below are approximate) —

[ performance notes (cont.) ]

fing.

15va

weaker upper partials —————> (mostly air?)

[ Bass clarinet ]

Semi-pitched slap tongue.

Harmonic glissando produced by lowering the jaw.

[ Bass clarinet multiphonics ]

Multiphonics in the bass clarinet part are taken from Harry Sparnaay's *The Bass Clarinet: A Personal History*. The multiphonics chosen are known to be quite stable, but if any of these cannot be executed as intended, the performer is encouraged to find similar multiphonics that approach the tone quality and character of those in the score. They have been notated as: M.1, M.2, and M.3. The fingerings used are —

[M.1]

[M.2]

[M.3]

Since M.2 and M.3 are separated by only one change of finger, this makes it possible to trill between them, as in this example from 5:26 —

M.2

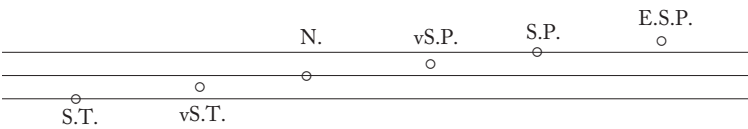
M.3

*sf*

*ppp*

[ *performance notes* (cont.) ]

[ *Cello bowing* ]



The bowing clef indicates movement between the following positions —

- |                         |                                 |
|-------------------------|---------------------------------|
| S.T. — sul tasto        | vS.P. — verso sul ponticello    |
| vS.T. — verso sul tasto | S.P. — sul ponticello           |
| N. — normale (ordinato) | E.S.P. — extreme sul ponticello |

Movement between these positions may be —

- |  |  |
|--|--|
|  | <i>linear; consistent</i>                        |
|  | circular ( <i>small</i> , frequent)              |
|  | circular ( <i>larger</i> , wider, less frequent) |
|  | <i>random, irregular</i>                         |

[ *Cello multiphonics* ]

Multiphonics in the cello part are taken from [www.cellomap.com](http://www.cellomap.com). The multiphonics chosen are known to be quite stable — they are from the collection of eight “*pure*” multiphonics available on each string — but if any of these cannot be executed as intended, the performer is encouraged to find similar multiphonics that approach the tone quality and character of those in the score. They are notated like so (example taken from 5:03 in the score) —

A musical score example for cello multiphonics. The score is for a cello (Vc.) and a bow. The bow part has a single line with a bowing clef. The Vc. part has three staves: a treble clef staff with a 15<sup>ma</sup> (15th fret) marking, a bass clef staff, and a double bass clef staff. The bowing clef indicates movement between positions S.P. (sul ponticello), N. (normale), and S.P. (sul ponticello). The Vc. part shows duration lines for the multiphonics, with labels [A.], [B.], and [C.] indicating different positions and overpressure levels. The [C.] label is used to indicate overpressure, with a line that thickens from left to right. The [A.] and [B.] labels are used to indicate different positions, with diamond noteheads indicating the specific string and partials. The [A.] label is used for the lower position, and the [B.] label is used for the upper position. The [C.] label is used for the overpressure indication. The score also includes dynamic markings: *sub mp*, *f*, and *p*.

IV [ 7+13+16 ] identifies the string and the component partials contained in the multiphonic. There are two positions available for each multiphonic — one on the upper half and the other on the lower half of the string — indicated by the diamond noteheads. The lower of the two (A) is always larger and recommended, but the upper position (B) could be just as useful. It is possible that varying amounts of pressure (touch, half-press, etc.) need to be explored in order to achieve stability and reliability.

The overpressure indications (C) are used to distort the multiphonic, and indicate movements from little-to-no pressure (where the line is at its thinnest) to as much pressure as possible (where thickest). As the line thickens the bow should also slow down to enhance distortion.

Unlike the example provided, cello multiphonics in this piece usually begin from overpressure and move toward pure tone. This allows the performer more time to adjust her / his finger position and find the multiphonic through the event.

Duration lines suggest an approximate envelope for the other pitches in the multiphonic, but by no means are they definitive.

composed for NOMOS

# The Fiction of Time Destroyed

[ Bass Clarinet in B $\flat$  ]

[ *dur. ca. 8:25* ]

*Desbaratada la Ficción del Tiempo*  
[ for alto flute, bass clarinet, cello, and electronics ]

First draft<sup>†</sup> — 20 May 2015  
— *for Tim* —

Louis GOLDFORD (2015)

Luminous [ MM. = ca. 60 ]<sup>††</sup>

2 4

Bass Clarinet in B $\flat$

Electronics

0:00 0:01 0:02 0:03 0:04 0:05 0:06 0:07 0:08 0:09

B. Cl.

Elec.

0:10 0:11 0:12 0:13 0:14 0:15 0:16 0:17

B. Cl.

Elec.

0:18 0:19 0:20 0:21 0:22 0:23 0:24 0:25

3 2

B. Cl.

Elec.

0:26 0:27 0:28 0:29 0:30 0:31 0:32 0:33

(V.S.)

<sup>†</sup> Notation of the Electronics in this draft includes cue numbers only. Descriptions of the electronic sounds & processes will be finalized and published in a later draft.  
Electronics include *fixed* and *live* components. For more information or for software requests, contact [ljgoldford@gmail.com](mailto:ljgoldford@gmail.com).

<sup>††</sup> Time is flexible; not absolutely strict. Each "measure" may be stretched slightly, but phrase durations should be preserved as best as possible.

4

B. Cl. Flz. *mp* *f* 5

Elec. 0:34 0:35 0:36 0:37 0:38 0:39 0:40 0:41

B. Cl. Flz. *fp* *sf* *mp* *f* *mp* *f*

Elec. 0:42 0:43 0:44 0:45 0:46 0:47 0:48 0:49

B. Cl. *pp* *f* *p sub. f* *p* *f* *p* *mf* *ff*

Elec. 0:50 0:51 0:52 0:53 0:54 0:55 0:56 0:57

B. Cl. *p* *fp* (*p*) *f* *p* *ff* (*ff*) *mp*

Elec. 0:58 0:59 1:00 1:01 1:02 1:03 1:04 1:05

B. Cl. Flz. *ff* (*ff*) *mp sub.* *f* *p*

Elec. 1:06 1:07 1:08 1:09 1:10 1:11 1:12 1:13

B. Cl. Flz. *mf* *p* 6

Elec. 1:14 1:15 1:16 1:17 1:18 1:19 1:20 1:21

3

1

B. Cl. *pp*

Elec. 1:22 1:23 1:24 1:25 1:26 1:27 1:28 1:29

2

3

B. Cl. *ff* 7 8

Elec. 1:30 1:31 1:32 1:33 1:34 1:35 1:36 1:37



5

B. Cl.

Elec.

1:38 1:39 1:40 1:41 1:42 1:43 1:44 1:45

*f* *ff*

3

5

B. Cl.

Elec.

1:46 1:47 1:48 1:49 1:50 1:51 1:52 1:53

9

4

B. Cl.

Elec.

1:54 1:55 1:56 1:57 1:58 1:59 2:00 2:01

*(slowing down)* *ff* 10

B. Cl.

Elec.

2:02 2:03 2:04 2:05 2:06 2:07 2:08 2:09

*p*

B. Cl.

Elec.

2:10 2:11 2:12 2:13 2:14 2:15 2:16 2:17

*poco mp poss.*

B. Cl.

Elec.

2:18 2:19 2:20 2:21 2:22 2:23 2:24 2:25

*(poco mp)*

B. Cl.

Elec.

2:26 2:27 2:28 2:29 2:30 2:31 2:32 2:33

*(poco mp)*

B. Cl.

Elec.

2:34 2:35 2:36 2:37 2:38 2:39 2:40 2:41

*(poco mp poss.)*

B. Cl.

Elec.

2:42 2:43 2:44 2:45 2:46 2:47 2:48 2:49

*(speeding up)* 11 *ff*

4 3 2 3

B. Cl.

Elec. 12 13

2:50 2:51 2:52 2:53 2:54 2:55 2:56 2:57

4

B. Cl.

Elec. 14

*mp*

2:58 2:59 3:00 3:01 3:02 3:03 3:04 3:05

B. Cl.

Elec. *ff*

3:06 3:07 3:08 3:09 3:10 3:11 3:12 3:13

B. Cl.

Elec.

3:14 3:15 3:16 3:17 3:18 3:19 3:20 3:21

1 4 3

B. Cl.

Elec. *mf* 15 16

3:22 3:23 3:24 3:25 3:26 3:27 3:28 3:29

5 3

B. Cl.

Elec. *ff* 17

3:30 3:31 3:32 3:33 3:34 3:35 3:36 3:37

4

B. Cl.

Elec.

3:38 3:39 3:40 3:41 3:42 3:43 3:44 3:45

B. Cl.

Elec. *pp*

3:46 3:47 3:48 3:49 3:50 3:51 3:52 3:53

B. Cl.

Elec.

3:54 3:55 3:56 3:57 3:58 3:59 4:00 4:01

B. Cl.

Elec.

4:02 4:03 4:04 4:05 4:06 4:07 4:08 4:09

B. Cl.

Elec.

4:10 4:11 4:12 4:13 4:14 4:15 4:16 4:17

Elec.

4:18- 4:29

12

B. Cl.

Elec.

4:30 4:31 4:32 4:33 4:34 4:35 4:36 4:37

(V.S.)

2 4 3

B. Cl.

*f* *mp*

Elec.

4:38 4:39 4:40 4:41 4:42 4:43 4:44 4:45

22

5 3

B. Cl.

*f* *f* *mp*

Elec.

4:46 4:47 4:48 4:49 4:50 4:51 4:52 4:53

23

4

B. Cl.

*f* *mp* *sub.mp*

Elec.

4:54 4:55 4:56 4:57 4:58 4:59 5:00 5:01

24

3 5

B. Cl.

*f*

Elec.

5:02 5:03 5:04 5:05 5:06 5:07 5:08 5:09

25

4 3

B. Cl.

*mp* *sffp* *ppp*

Elec.

5:10 5:11 5:12 5:13 5:14 5:15 5:16 5:17

26 27

53

B. Cl.

Elec.

5:185:195:205:215:225:235:245:25

5

B. Cl.

Elec.

5:265:275:285:295:305:315:325:33

6

B. Cl.

Elec.

5:345:355:365:375:385:395:405:41

4

B. Cl.

Elec.

5:425:435:445:455:465:475:485:49

B. Cl.

Elec.

5:505:515:525:535:545:555:565:57

B. Cl.

Elec.

5:585:596:006:016:026:036:046:05

2

B. Cl.

Elec.

6:066:076:086:096:106:116:126:13

(V.S.)

4

B. Cl.

Elec.

6:14 6:15 6:16 6:17 6:18 6:19 6:20 6:21

*pp*

B. Cl.

Elec.

6:22 6:23 6:24 6:25 6:26 6:27 6:28 6:29

B. Cl.

Elec.

6:30 6:31 6:32 6:33 6:34 6:35 6:36 6:37

B. Cl.

Elec.

6:38 6:39 6:40 6:41 6:42 6:43 6:44 6:45

*ff*

B. Cl.

Elec.

6:46 6:47 6:48 6:49 6:50 6:51 6:52 6:53

*(ff)*

B. Cl.

Elec.

6:54 6:55 6:56 6:57 6:58 6:59 7:00 7:01

*(ff)* Flz.

B. Cl.

Elec.

7:02 7:03 7:04 7:05 7:06 7:07 7:08 7:09

Flz.

Detailed description: This page contains the musical score for measures 6:14 through 7:09. It is divided into six systems, each with a B. Cl. (Bass Clarinet) staff and an Elec. (Electric) staff. The B. Cl. staves use a treble clef and contain various musical notations including quarter notes, eighth notes, sixteenth notes, and rests, often with slurs and ties. The Elec. staves are mostly empty, with some horizontal lines indicating sustained sounds or specific articulation marks. Dynamics such as *pp* (pianissimo) and *ff* (fortissimo) are indicated. There are also articulation marks like accents and breath marks. The time signature is not explicitly shown but appears to be common time (C). The overall layout is clean and professional, typical of a musical score.

B. Cl.

Elec.

7:10 7:11 7:12 7:13 7:14 7:15 7:16 7:17

B. Cl.

Elec.

7:18 7:19 7:20 7:21 7:22 7:23 7:24 7:25

B. Cl.

Elec.

7:26 7:27 7:28 7:29 7:30 7:31 7:32 7:33

Flz.

B. Cl.

Elec.

7:34 7:35 7:36 7:37 7:38 7:39 7:40 7:41

B. Cl.

Elec.

7:42 7:43 7:44 7:45 7:46 7:47 7:48 7:49

B. Cl.

Elec.

7:50 7:51 7:52 7:53 7:54 7:55 7:56 7:57

B. Cl.

Elec.

7:58 7:59 8:00 8:01 8:02 8:03 8:04 8:05

32

ppp