

# Time's Echo

*for solo viola and electronics*

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Mathew Solomon | Istanbul, Türkiye, 2026

Duration: 8 minutes

Electronic accompaniment are a combination of live processing and fixed media

Written for the 2026 Sonified Festival in Istanbul, Türkiye, hosted by Arter and Istanbul Technical University's Center for Advanced Studies in Music (MIAM). Viola performance by Mark Menzies.

*Time's Echo* is inspired in part by Jeremy Eichler's 2023 book of the same name, a historical meditation on music's power to capture memory and memorialize. While thematically applicable beyond any individual moment or cultural experience, Eichler's book reflects on music written surrounding the Second World War, and the many ways Jewish experiences influenced composers using music to understand that time in history. In this spirit, the following music was written.

## **Technical Setup**

Viola should be mic'd fairly closely for a clear, warm, direct sound. A direct close microphone on a stand is ideal to pick up the diversity of timbres of the instrument.

The electronic effects and accompaniment are sequenced forward at each rehearsal marking in the score. These sequence markers correspond to equivalently labeled "scenes" in the Ableton Live session controlling the signal flow.

These scene transitions can be triggered either by a second performer at the computer or by the violist via a foot pedal.

## **Performance Notes**

### **Tempi and Timing**

mm. 1 - 96: Timing is flexible. Electronics are sequenced forward at rehearsal markings according to the violist

mm. 97 - 149: Strictly in tempo, given by the electronics accompaniment

mm. 150 - 192: Timing is flexible

mm 199 - 225: "Canon 1-4" lengths are determined by the length of the first recorded chant (mm. 192-198)

mm. 226 - 238: Strictly in tempo, given by electronics accompaniment

mm. 239 - end: Timing is flexible

### **Ornamentation**

X-notehead grace notes should be played at the end the bowing of the previous note, with a barely-perceptible pitch. This immitates the Klezmer ornamentation "krekhts", which is akin to a hiccup or a singer's voice breaking

### **Tempo at Rehearsal [12]**

This meter and irregular tempo is a representation of the Romanian Jewish Klezmer rhythm of a Hora, or Zhok dance. This dance is a slow 3 beat rhythm with emphasis on beats 1 and 3, with an elongated liltng 3rd beat. Similar to swung rhythms in jazz, there is no standardized proportionality of the timing between these beats; individual performances vary. Attempts to exactly quantize this rhythm using complex meters sacrifices the simple liltng feeling of the rhythm. Thus, this rhythm has been noted simply as 3 beats, where the 3rd beat is at a slower tempo. The first 4 measures in the accompaniment demonstrate the irregular tempo before the soloist joins.

## **Electronic Effects and Accompaniment**

### **Dynamic Reverb**

A live processed reverb chain on the viola signal, whose length and density is inversely proportional to the input amplitude of the viola. In other words, quiet viola playing reverberates longer and more richly, and louder viola playing is dryer, sharper sound with a much tighter reverb.

### **Pizzicato and Col Legno Echo**

Pizzicato and col legnos notes captured from the viola are repeated back sparsely and chaotically.

### **Glass Synths**

Live processing of the viola, fed through a series of granular synthesizers set to defined pitches. These arrays of granular synthesizers create atmospheric pads of varying density depending on the viola input.

### **Effectuated Looping**

The viola performance is captured and looped (with applied effects).

### **Fixed Media**

Fixed media audio files are triggered throughout the score, as both sound effects and musical accompaniment to the viola.

# Time's Echo

for solo viola and electronics

Mathew Solomon

Written for Sonified 2026 and Mark Menzies

Freely (♩ = 52-60)

Viola

Electronics

1 intro atmospheric sfx dynamic reverb

sul tasto flautando

ppp like a whisper

-----5-10 seconds-----

4 sul pont. tr mf ppp mf > ppp ppp < ff > ppp ppp < 5 p

7 arco ord. (III) sul pont. col legno p p mf pp p p f ppp 2 echo input

11 pizz. mf > p mf mp p > pp pp 3 subtle echos of col legno and pizz in the background turn off echo input echos continue in background

15 sul tasto sul pont. 6 mp 6 f 3 ord. V p sub. <>

17 sul pont. ord. p sub. <> mf < ff mp < fff p sub. <> 4 shimmer synth input (P1, P8) chords built from live processed viola

Ghostly (♩ = 52-60)

20

*pp*

5 turn off shimmer synth input  
shimmering chords continue

26

30

col legno pizz. sul pont. arco

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

6 fade out shimmer synth  
echo input

7 turn off echo input, echos of col legno and pizz continue

33

accel..... Faster (♩ = 80)

*mf* *f* *p sub.* *mf* *p*

echos become more dense

35

slow gliss

*f* *ff* *mp sub.* *ff* *p* *sfz* *p* *mf* *f* *ff* *mp*

echos become more dense

38

Faster (♩ = approx. 84)

sul pont. ord. sul pont. sul pont. pizz.

*pp* *f* *ppp* *sf* *sfz* *sfz* *ff* (still *ff*)

8 additional echo input

arco ord. sul pont. sul pont. ord. ord. sul pont. sul pont.

41

9 | turn off echo input, dense chaotic echos continue

sul pont. ord. slow gliss

45

p sub. 6 fff mp f p

echos become more dense

ord. → sul pont. molto rit..... pizz. arco pizz. arco

48

mp fff ppp mf mp pp

10 | turn off echos shimmer synth input (P1, P5, P8) | 11 | turn off synth input shimmering chords continue

Glass-like, incredibly delicate (♩ = 68-76) senza vibrato

Moving forward, drunkenly light bowing, loose messy articulation

52

ppp < p ppp mp < mf

shimmering chords continue

58

mp mf f mp mf p < f

shimmering chords continue

62

mf < f mf f ff

shimmering chords continue

\* X-notehead grace notes should be played at the end the bowing of the previous note, with a barely-perceptible pitch. This imitates the Klezmer ornamentation "krekhts", which is akin to a hiccup or a singer's voice breaking

A touch faster, with more confidence (♩ = 80)

66 arco *mf* pizz. *f* arco *mf* 5 5

shimmering chords continue

70 *f* 5 sul pont. molto accel.....

shimmering chords continue

74 *cresc.* ord. *pp sub.* *f* (III) (II)

fade out shimmering synth  
pulsing airy sfx

77 ord. sul pont. sul pont. pizz. *p* *sfz* *sfz* *sfz* *ff*

80 arco ord. sul pont. sul pont. ord. Suddenly slowed (♩ = 50-60) *sfz* 13 14 turn off synth input, shimmer synth input (P1, m6, P8)

84 sul tasto flautando *p* 5 *gliss.* *molto vib.* ord. *ppp* sul tasto flautando *p* 5 *mf* 5 *p*

shimmering chords continue

88 *accel.*.....*molto rit.*.....  
*sul tasto* → *ord.* *molto accel.*.....

15 fade out shimmer synth

90 *sul tasto* → *sul pont.* *ord.*

16 short shimmer synth burst (P5, m6, P8, m9)

92 *p sub.* *f* *p* *pp* *ord.*

17 short shimmer synth burst (P5, m6, P8, m9)

18 Hora Rhythm Enters\*

97 ♩ = 148 ♩ = 120 ♩ = 148 ♩ = 120 irregular tempo continues...

18 4 measure accompaniment loop starts

101 *pizz.* *mf*

19 loop repeats

105

20 loop repeats, adding previously, played viola parts

\* This irregular tempo is a representation of the Romanian Jewish Klezmer rhythm of a Hora, or Zhok dance. This dance is a slow 3 beat rhythm with emphasis on beats 1 and 3, with an elongated lilting 3rd beat. Similar to swung rhythms in jazz, there is no standardized proportionality of the timing between these beats; individual performances vary. Attempts to exactly quantize this rhythm using complex meters sacrifices the simple lilting feeling of the rhythm. Thus, this rhythm has been noted simply as 3 beats, where the 3rd beat is at a slower tempo.

The first 4 measures in the accompaniment demonstrate the irregular tempo before the soloist joins

109 col legno

*p*

loop repeats, adding previously, played viola parts

113 19 turn off loop input

*playful*  
*arco*  
*mf*  
3

loop repeats, adding previously, played viola parts

118

3

123

*f* *mf*  
3

128

*pizz.* *arco* *molto vibrato*  
*p sub.* *f*

Slightly faster  
*dolce, molto espressivo*

133

*mp* *mf*  
4

chords start changing

137

*f*

142

*molto dolce*

*mp* *f* *mf*

[146]

*p sub.* *mf*

150

*sul pont.* |---approx. 3 seconds---|

*p sub.* *f* *pp*

**20** | accompinament stops  
dissonant D Major ghost chord... | extreme dynamic reverb

Pushing (♩ = 104-124)  
(sul pont.)

155

*cresc.*

158

*p* *mf*

162

*sff*

**21** | ghost chord attack, airy atmosphere sustains

165

*ff*

Musical notation for measures 165-168. The piece is in a minor key with a key signature of one flat. The time signature changes from 8/16 to 18/16 and back to 8/16. The notation features a series of eighth notes with accents and slurs, ending with a quarter note chord marked with a plus sign.

169

Musical notation for measures 169-172. The notation continues with eighth notes and slurs, maintaining the same rhythmic and melodic patterns as the previous section.

173

Musical notation for measures 173-176. The notation continues with eighth notes and slurs, showing a slight melodic shift in the final measure.

177

Musical notation for measures 177-180. The notation continues with eighth notes and slurs, ending with a quarter note chord marked with a plus sign.

181 (II)

Musical notation for measures 181-184. The notation features sixteenth notes with accents and slurs. The time signature changes from 3/4 to 6/16 and back to 3/4. The notation includes a first ending bracket labeled (I) and a second ending bracket labeled (II).

185

increasingly harsh and over the bridge

highest note

Musical notation for measures 185-188. The notation features sixteenth notes with accents and slurs. The time signature changes from 3/4 to 3/8 and back to 3/4. The notation includes a first ending bracket labeled (I) and a second ending bracket labeled (II). The notation ends with a quarter note chord marked with a plus sign and a dynamic marking of *fff*.

rich D major sonority, slowly fades into low sustain atmosphere

191 -----approx. 5 seconds-----

Spiritual, chant in canon

Not too slow (♩. = 48-54)

192 ord.

195

1st Canon

faint, wispy

sul pont.

199

recorded viola is played back, as a ghostly echo

202

2nd Canon

rich and full

ord. (III)

205

echo loop repeats

208

slow gliss fast gliss

*f* *p* *mf*

4

Detailed description: This system contains measures 208 and 209. The music is written for a double bass in 12/8 time. Measure 208 features a melodic line with a four-measure slur and a dynamic marking of *f*. Measure 209 continues with a dynamic of *p* and a four-measure slur, followed by a *mf* dynamic and a four-measure slur. The piece includes 'slow gliss' and 'fast gliss' markings. The bass line consists of eighth and sixteenth notes.

210

*f* *mp* *mp* *mf* *mp*

4

Detailed description: This system contains measures 210 and 211. Measure 210 starts with a dynamic of *f* and a four-measure slur. Measure 211 has dynamics of *mp*, *mp*, *mf*, and *mp* with a four-measure slur. The bass line continues with eighth and sixteenth notes.

3rd Canon  
dark, heavy

213

*mf* *mf* *f* *p sub.*

4

Detailed description: This system contains measures 213 and 214, marking the beginning of the '3rd Canon'. The tempo is 'dark, heavy'. Measure 213 has a dynamic of *mf* and a four-measure slur. Measure 214 has dynamics of *mf*, *f*, and *p sub.* with a four-measure slur. The bass line features eighth and sixteenth notes.

216

*mf* *mp* *mf* *f*

4

Detailed description: This system contains measures 216 and 217. Measure 216 has dynamics of *mf* and *mp* with a four-measure slur. Measure 217 has dynamics of *mf* and *f* with a four-measure slur. The bass line continues with eighth and sixteenth notes.

4th Canon  
aggitated, eratic

218

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

ord. sul pont. 5

4

Detailed description: This system contains measures 218 and 219, marking the beginning of the '4th Canon'. The tempo is 'aggitated, eratic'. Measure 218 has dynamics of *mf*, *f*, *ff*, and *mf* with a four-measure slur. Measure 219 has dynamics of *f* and *ff* with a five-measure slur. The piece includes 'ord.' and 'sul pont.' markings. The bass line features eighth and sixteenth notes.

221

*ff* *sff* *mf*

ord. sul pont. pizz. arco ord.

Detailed description: This system contains measures 221 and 222. Measure 221 has dynamics of *ff* and *sff* with a four-measure slur. Measure 222 has a dynamic of *mf* with a five-measure slur. The piece includes 'ord.', 'sul pont.', and 'pizz.' markings. The bass line continues with eighth and sixteenth notes.

223 *sul pont.* *ord.* (II) *ff* (exact timing is unimportant) (I) *f*

5th Canon, faster (♩ = 68)  
overtaken by swelling accompaniment

225 *mf* *p* *pp* *sul pont.*

deep accompaniment takes over chant

228 *ord.* *sul pont.*

*bowing can be adjusted*

*5 5 5 5 5 5 5 5* *mp*

*cresc.* *mf*

231 *ord.*

*cresc.* *5 5 5 5 5 6 6 6*

*cresc.*

233 *sul pont.* *molto espressivo*

*f* *6 6 6 6 6 6 6 6* *ff*

*f* *cresc.* *ff*

Freely, alone (♩ = approx. 60)

236 *sul tasto*

*3 3 5* *sffz* *molto* *fff* *p* *6* *pp*

*sffz*

Accompaniment abruptly cuts off, leaving viola alone

241

*ppp* *pp* *pizz.* *arco* *morendo*

26 extreme dynamic reverb

27 short shimmer synth (P1, P5, P8)