Machine Language
for violin, 6-string electric violin (or viola), cello, percussion

in memory of Allen Sapp
percussion list:

* three cymbals
* bongos
* three toms, widely spread in pitch
* plastic shaft yarn mallets

note about the electric violin:

Machine Language was originally written for 6-string electric violin, amplified with a small spherical speaker to enable blending with the acoustic instruments. However, the part is easily playable on viola with a few octave modifications, indicated in the score here.

program notes:

In the study of genetic algorithms, computer scientists create virtual species with virtual genetic codes and allow for spontaneous mutations within some kind of Darwinian "survival of the fittest" context. These species reproduce and evolve, doing in minutes what has taken many millions of years for "real" creatures to do, often resulting in an unexpected beast who survives alone, victorious. In one particular case, the test for survival was a wrestling match; generation after generation, virtual wrestlers would tangle, mutate, and (if they survived) reproduce, their bodies evolving into highly optimized wrestling machines. One notably successful (and amusing) species that emerged was an enormous tall, wide and skinny creature that simply fell flat on top of its opponent, smothering it.

Coming in at just under 20 minutes and moving with geological--as opposed to computational--swiftness, Machine Language is in part an imagination of the sounds of the languages these virtual species might speak, or perhaps of the music they might make. There is, I think, a sense of undirected evolution in the piece, but rather than gradual evolution, we have "punctuated equilibra"--discrete moments of change followed by lifetimes of relative stasis. And, rather than admiring a celebrating victor, we finish with harmonious (for lack of a better word) cooperation.
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dan trueman

\( \mathcal{f} = 120 \)
neutral, minimal vibrato, flat, on the string

Violin

Electric Violin

Viola

Cello

Cymbals

Drums

rotating brushes on high tom--rotate 180 degrees per beat, with accents where indicated.

bongos on top two lines
toms below

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(effect is achieved with a single stroke, bouncing on the rim of the drum)
slight pont., at tip, staccato, but gentle

slight pont., at tip, staccato, but gentle

slight pont., at tip, staccato, but gentle

(open)
\[ \text{Vln.} \quad \text{Evn.} \quad \text{Vla.} \quad \text{Vc.} \quad \text{Cym.} \quad \text{Drm.} \]

\( \text{181} \)

\[ \text{Vln.} \quad \text{Evn.} \quad \text{Vla.} \quad \text{Vc.} \quad \text{Cym.} \quad \text{Drm.} \]

\( \text{p} \)

\( \text{F} \)

\[ \text{Vln.} \quad \text{Evn.} \quad \text{Vla.} \quad \text{Vc.} \quad \text{Cym.} \quad \text{Drm.} \]

\( \text{183} \)

\[ \text{Vln.} \quad \text{Evn.} \quad \text{Vla.} \quad \text{Vc.} \quad \text{Cym.} \quad \text{Drm.} \]

\( \text{p} \)

\( \text{f} \)
188

Vln.

Evn.

Vla.

Vc.

Cym.

Drm.

195

Vln.

Evn.

Vla.

Vc.

Cym.

Drm.
201 6-7 seconds pizz. (l.v.)

Vln.

Evn.

Vla.

Vc.

Cym.

Drm.

209

Vln.

Evn.

Vla.

Vc.

Cym.

Drm.

pizz. (l.v.)

mp

pont.

pont.

medium yarn mallets
Vln.  
Evn.  
Vla.  
Vc.  
Cym.  
Drm.  

\[ \text{387} \]

\[ \text{pp} \]

\[ \text{390} \]

\[ \text{pizz.} \]

\( \text{hold down both notes and let vibrate as much as possible} \)

rim trem., with plastic stick of soft mallet
enter very gently, very smooth, gradually become fuller

...niente

hard sticks
barely brush the D-string

smooth, unaccented

8vb low D on open string, barely brushed

yarn
Vln.  
Evn.  
Vla.  
Vc.  
Cym.  
Drm.  

\[ \text{A tempo rit.} \]  

\[ q = 70 \]