On the Wind-Battered Staircase

for

Tuba-Euphonium Ensemble and Live Electronics

Nicholas Shaheed

2014

Performance Notes

Instrumentation

On the Wind-Battered Staircase is a piece for four euphonium parts, two tuba parts, and a single performer to control the electronics via MIDI controller. However, euphonium IV can be performed by tubas for a three euphonium, three tuba configuration. It is preferred to have 2-3 performers on each tuba/euphonium part.

Electronics

Equipment

The equipment required for *Staircase* are a quadrophonic (or stereo) speaker setup, a computer, and a midi controller (preferably a keyboard or a Korg nanoPAD2) capable of being connected to the computer. Optionally, microphones may also be used to feed the ensemble playing through to the speakers in order to allow for a better blend between the ensemble and the electronics.

Software

The electronics can be found in the accompanying Max patch, all digital sounds will be controlled from there.

Using the Max Patch After opening the program, to start the audio click on the box marked *Audio On/Off*. An *X* will appear in the box if the audio is on.

In order to configure the inputs and outputs of the program, double click on the box labled *dac~ 1 2 3 4* and click on the *I/O Mappings* button. The opened window allows you to map the internal channels to external channels. In order to downmix the output to stereo, set output channels 3 and 4 to the same outputs as 1 and 2, respectively.

To select the MIDI input device you will be using, double click on the box labled *notein.*

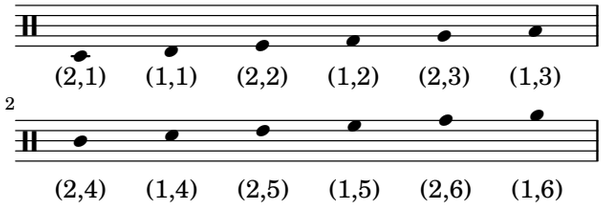
p quad_calibration is a tool that allows you to check and adjust the levels of your speakers, double click on the box to open it. Here, each individual channel's levels can be tested.

When opening the program, the patch is configured to start at the beginning. However, the electronics can be moved to any rehearsal mark using the drop down menu labled as such.

Reading the Score Controlling the electronics is configured two ways: for a keyboard style controller and for the Korg nanoPAD2. To select a configuration, use the *Control Selection* drop-down menu.

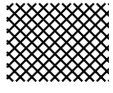
Keyboard To read the keyboard bindings, simply read the notes on the electronics part as if they were in treble clef.

Korg nanoPAD2 The bindings for the nanoPAD2 are shown below, where the coordinates are the button's distance from the top, left corner. For example, (1,2) would be the second button from the left in the top row.

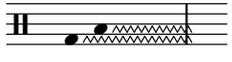


Graphic Notation

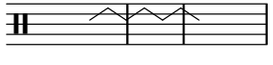
The graphic notation present in the electronic part is a visual descriptor of what is occuring in the electronics at that point in the score.



The crosshatching pattern indicates the presence of the noise soundscape - a collection of sounds that randomly glissando between pitches in the set used in the piece, with the range of pitches available changing throughout the piece. The height of the pattern indicates the range of pitches currently being used, and the vertical positioning of the pattern indicates the register of the pitches.



The zigzags indicate the presence of a "frozen" fragment of audio at that point in time. The lower note is a tuba sample and the upper note is a mix of a euphoium and a dulcimer.



The large zigzag indicates the presence of the collection of swooping frozen mix samples.

The arrow indicates the direction of the pitch-shift used on the mixed sample.

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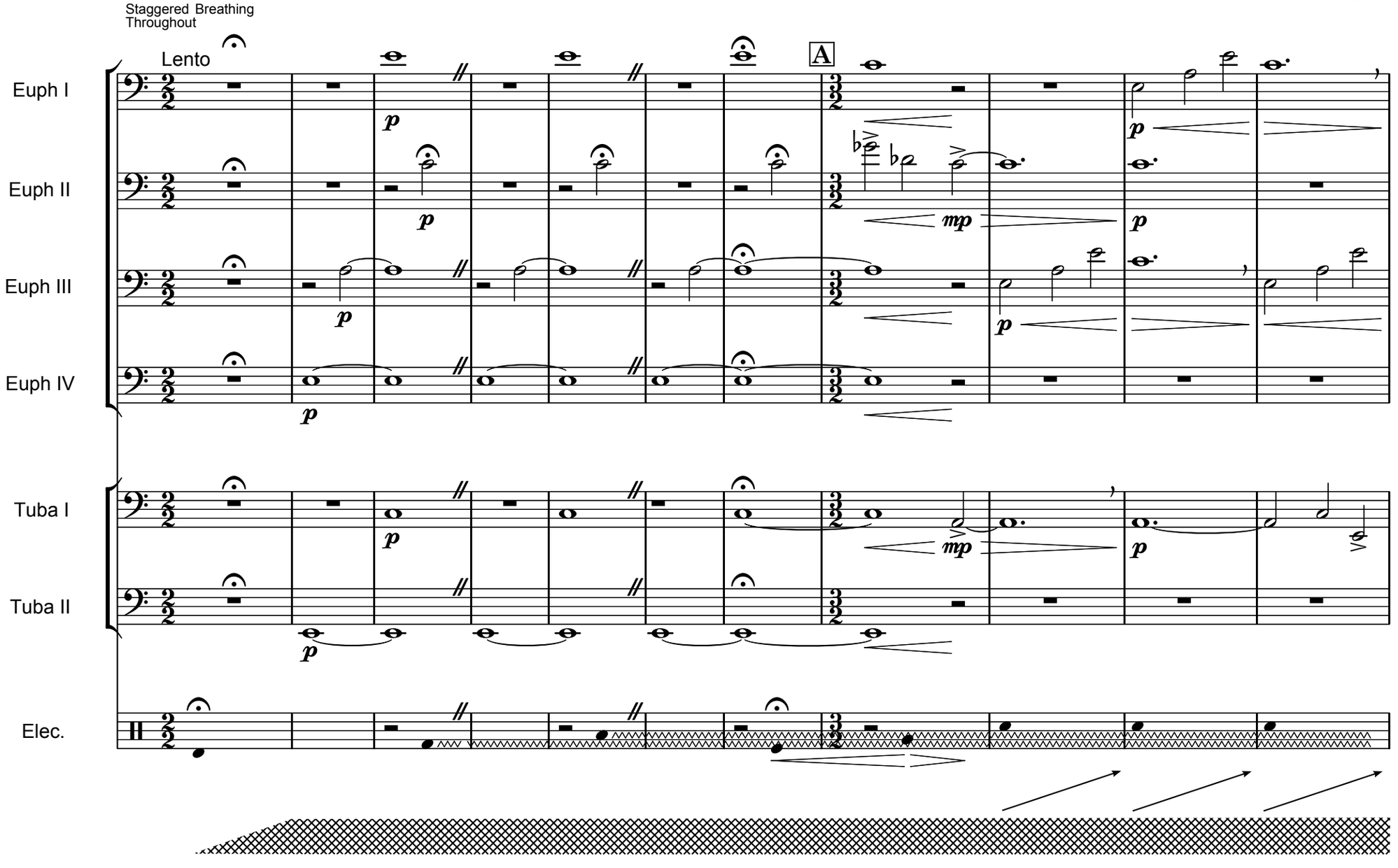
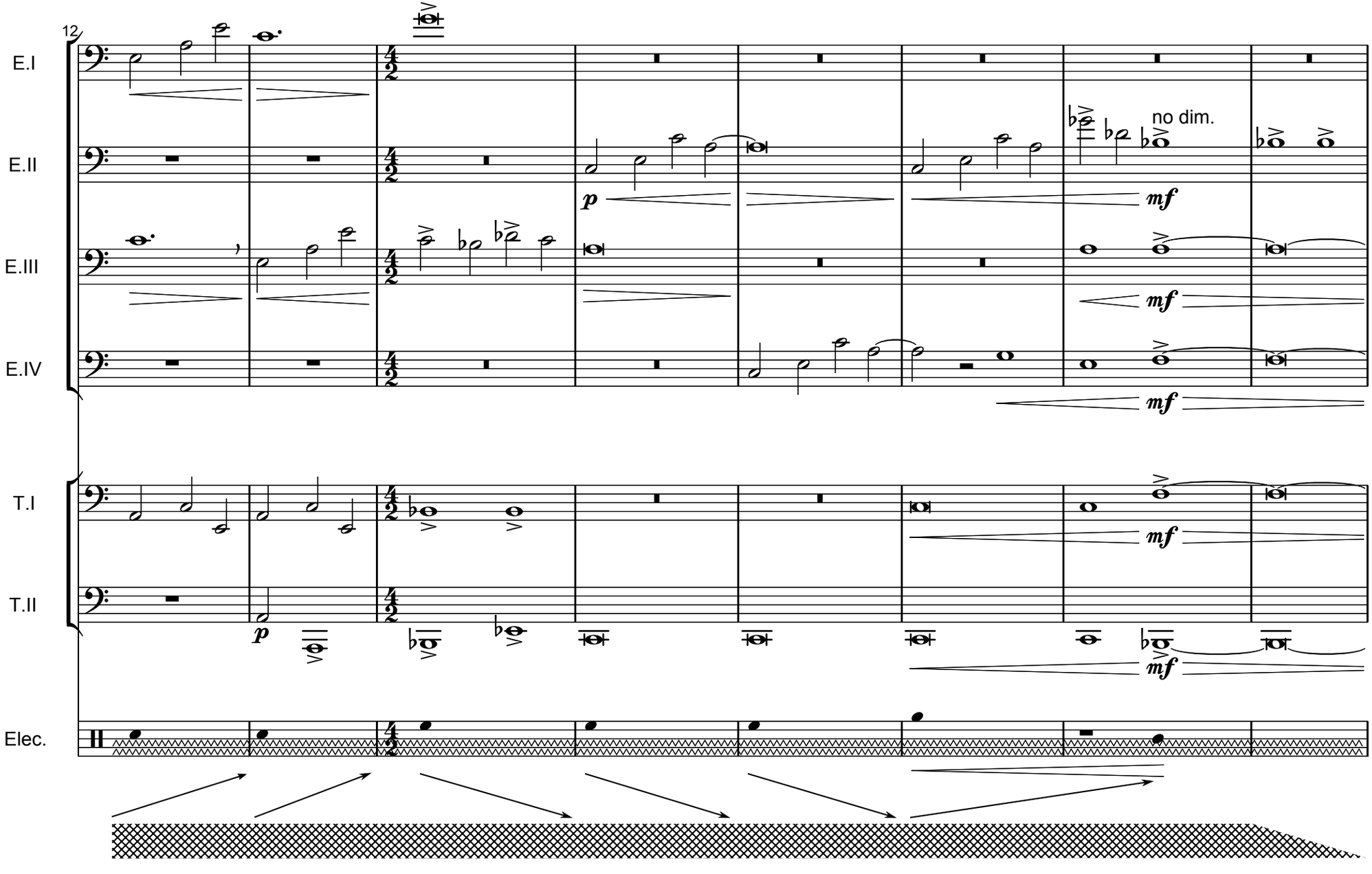
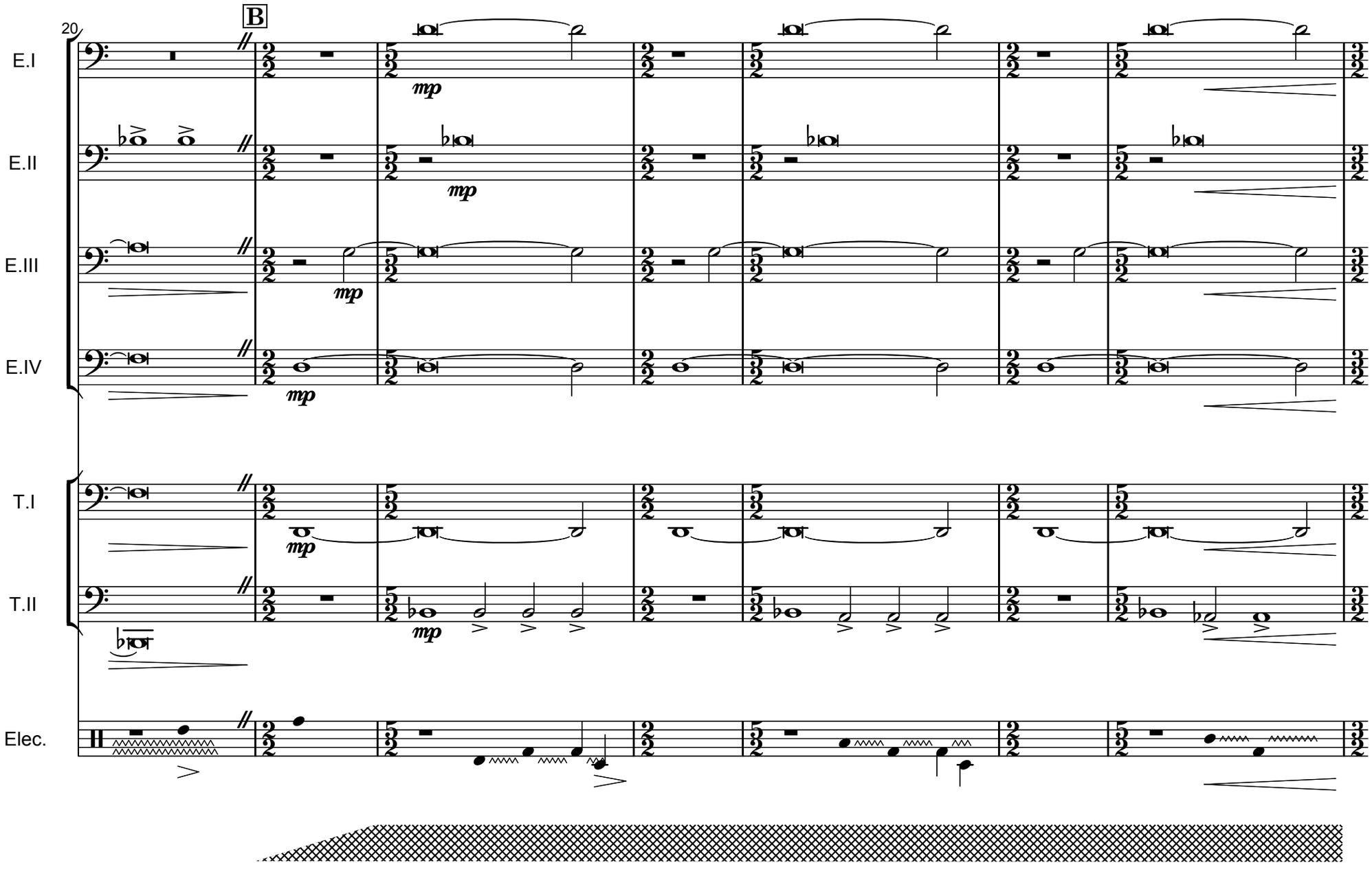
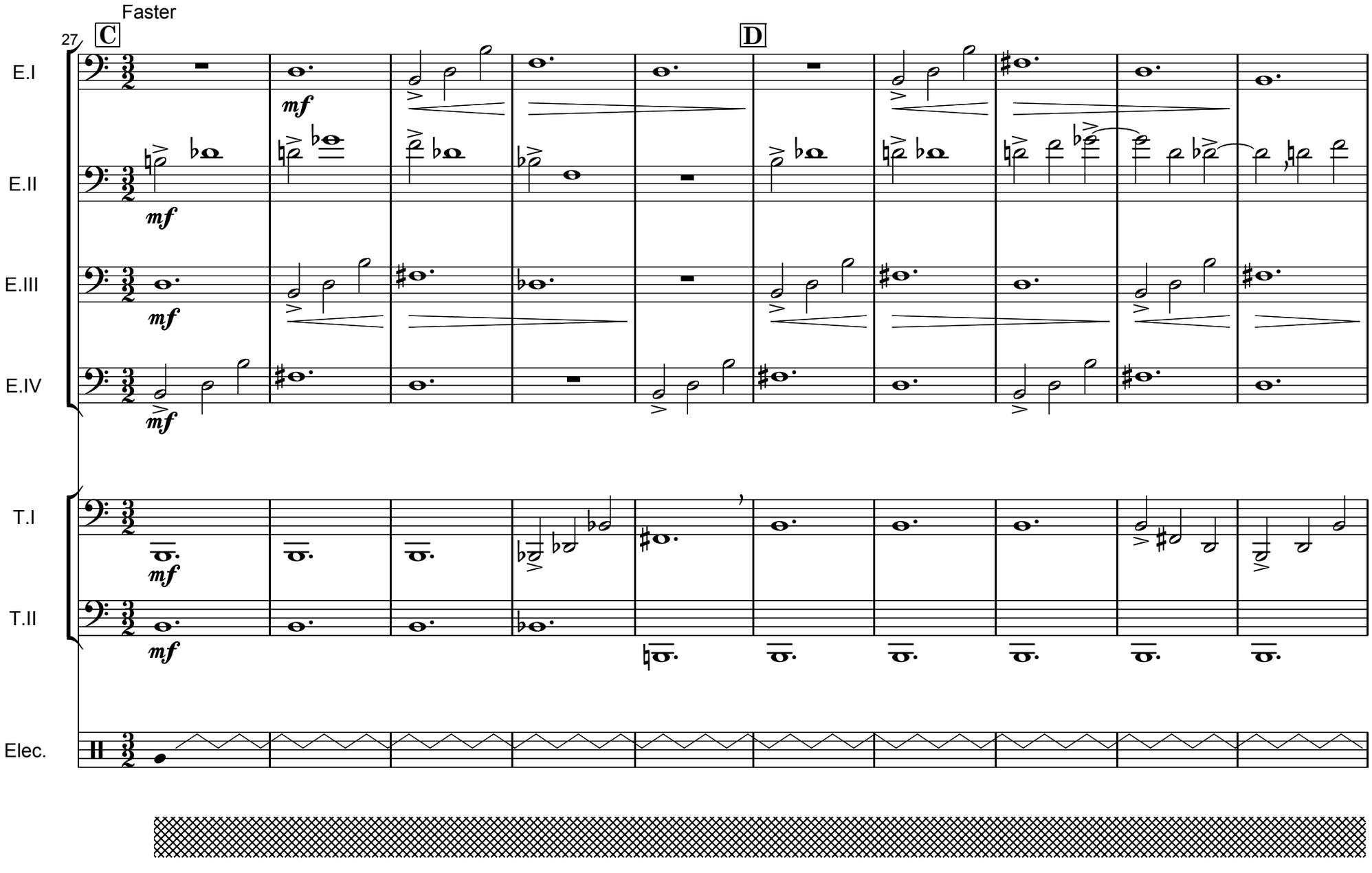
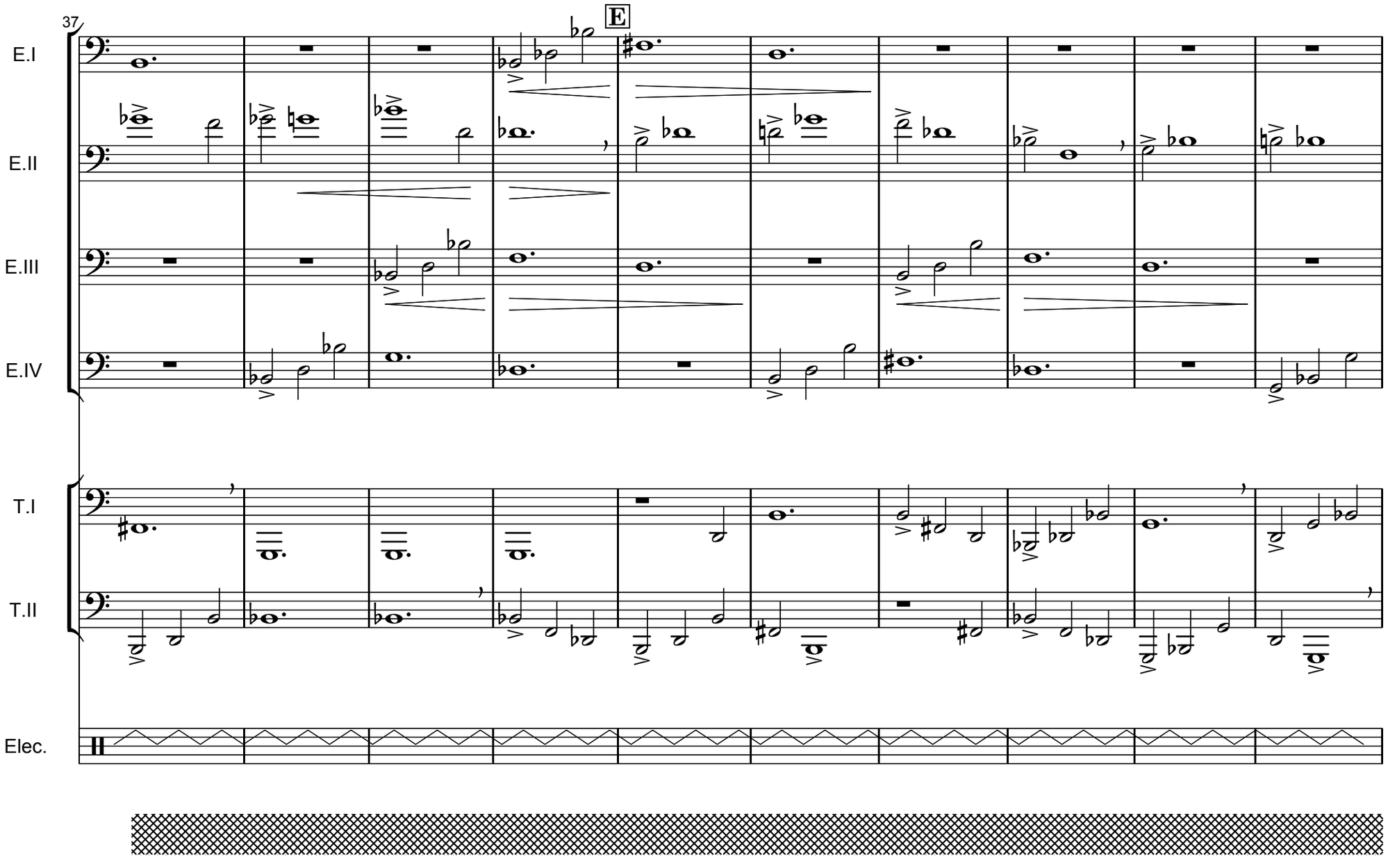
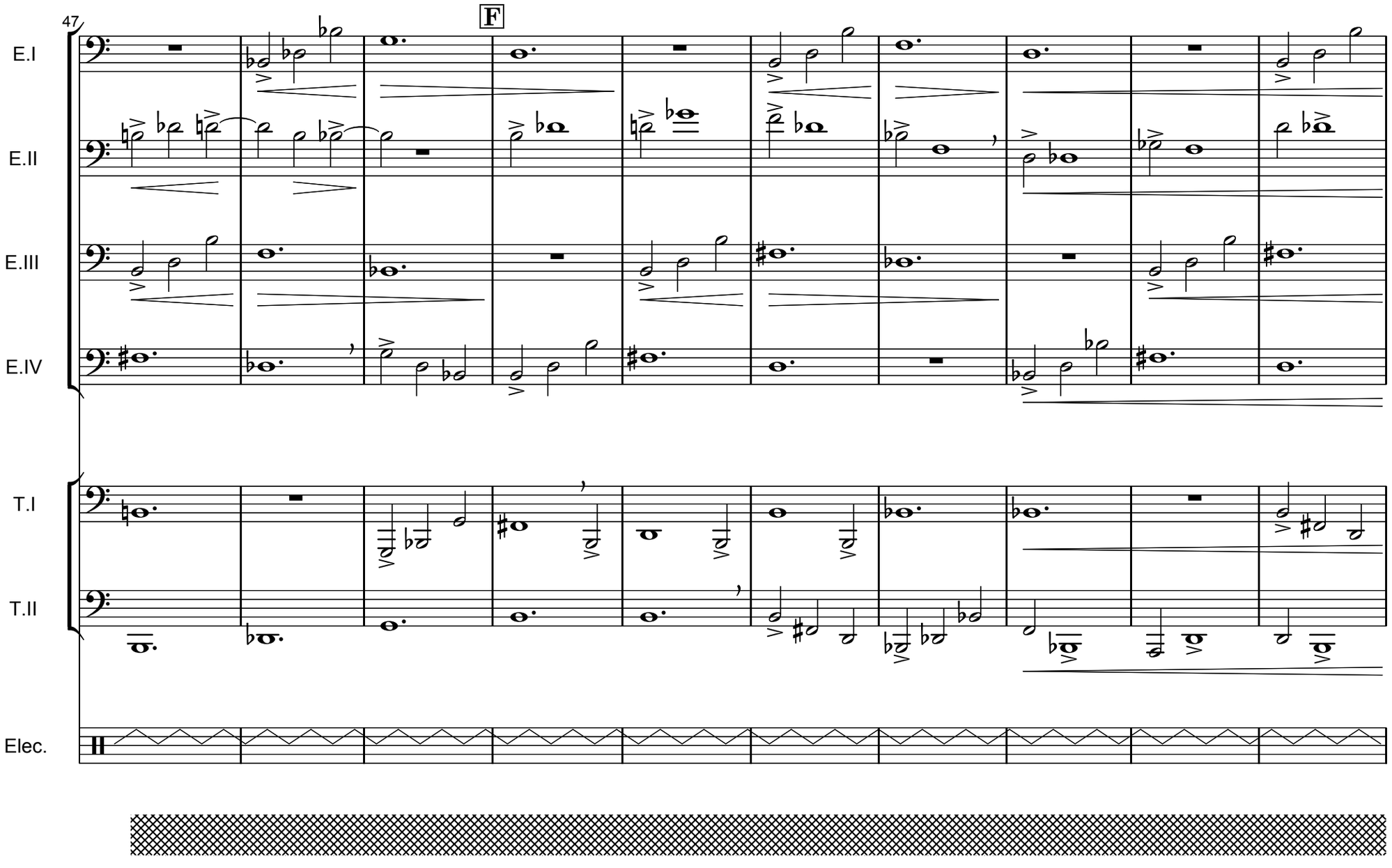


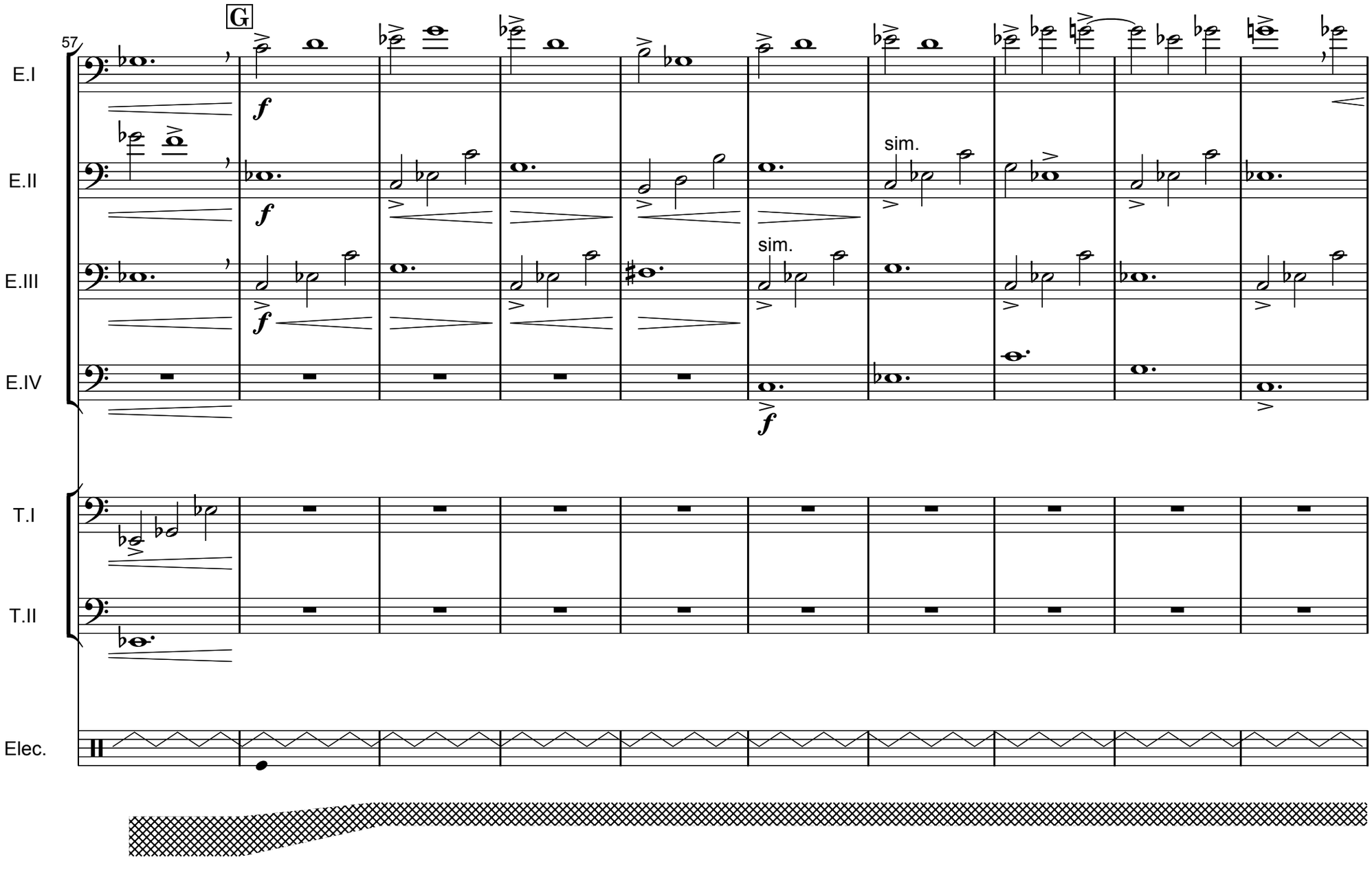

12
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.
no dim.
p
mf
mf
mf
p
mf
mf

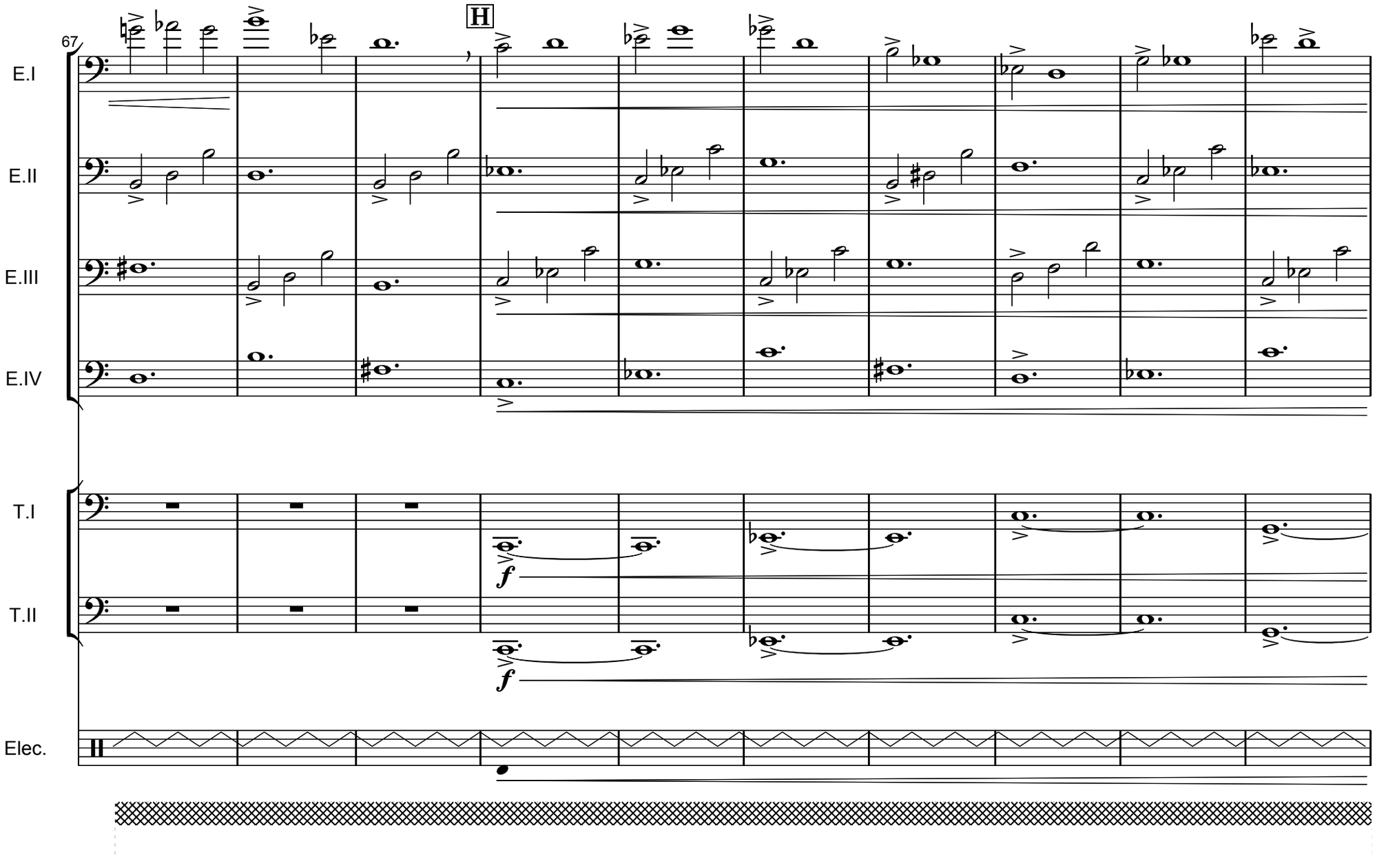

20
B
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.
mp

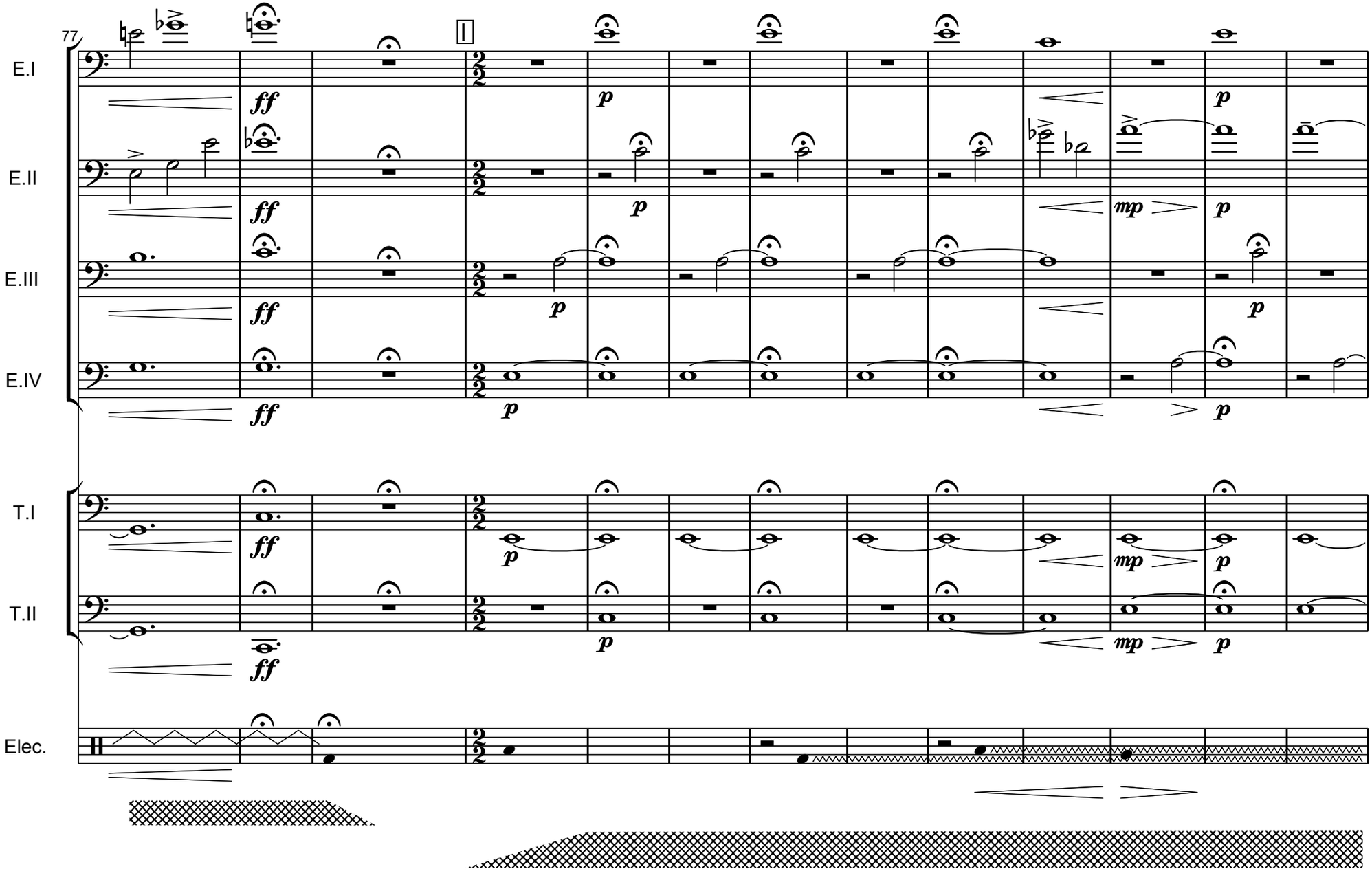

Faster
27
C
D
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.
mf

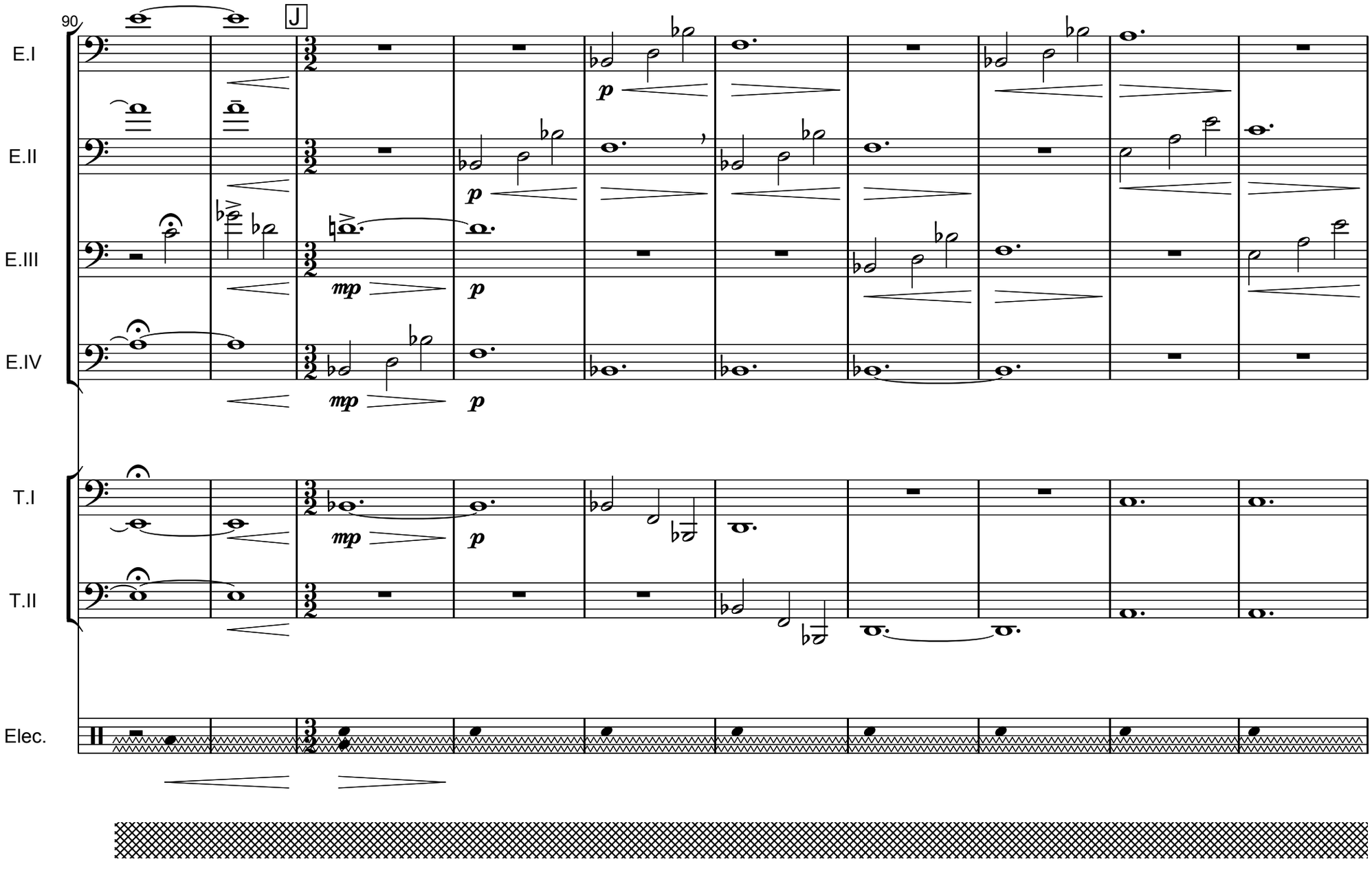

37
E
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.

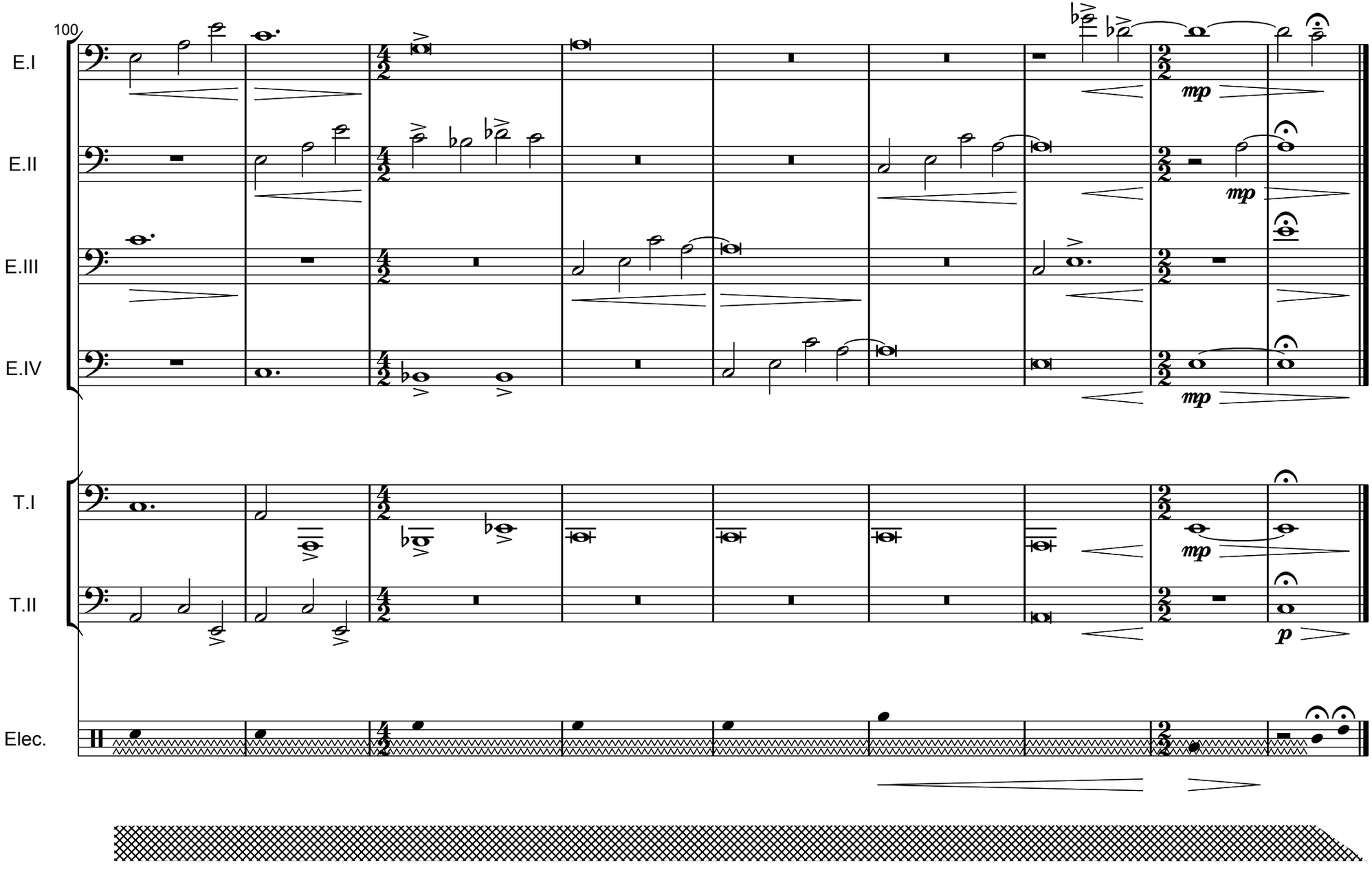

47
F
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.


57
G
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.
f
sim.
sim.


67
H
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.
f
f


77
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.
ff
p
mp


90
J
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.
p
mp


100
E.I
E.II
E.III
E.IV
T.I
T.II
Elec.
mp
mp
mp
p