Jesper Pedersen

ELECTRIC LIGHT ORCHESTRA

concerto for harp, orchestra and lights

- instructions, tech rider and orchestra parts -

for Katie

Instructions

The piece was commissioned by the Iceland Symphony Orchestra and was premiered at the Tectonics Festival 2012 in the Harpa Concert Hall, Reykjavik, Iceland. A documentation of the premiere can be found here: http://youtu.be/uJjBk-PbBko

Structure

The piece has a beginning, end and three parts (or movements) surrounded by silence and darkness (lights are off). The silence and darkness is the cue for the members of the orchestra to go to the next part og the piece.

Start (0:05) | Part 1 (3:30) | Silence (0:45) | Part 2 (3:30) | Silence (0:30) | Part 3 (3:30) | Silence (0:10) | End

The piece has duration of ca 12 minutes and 17 seconds.

Notation

The piece uses a mixture of realtime visual cues, animated graphical notation and paper notation. The players in the orchestra are to take cues from their stand-light that will turn on and off. On means PLAY the instruction that is notated on the piece of paper that is placed on the music-stand in front of them. Off means STOP PLAYING and wait for the light to turn on again. Each player has three (3) different instructions corresponding to each of the piece's movements (Part 1-3). Each part ends in a period of silence. This silence is also the cue for the orchestra to advance to next instruction.

The harp soloist is playing from a combination of realtime animated graphic notation and reactive light notation run from custom computer software and hardware. Part 1 and Part 2 is to be read directly off the screen of a laptop. Part 3 is read off the light array placed on the soundboard of the harp. A video rendering of Part 1 and Part 2 can be found here: http://vimeo.com/50299808 and here: http://vimeo.com/50395028. Part 3 uses the custom light array as notation.

The harp soloist

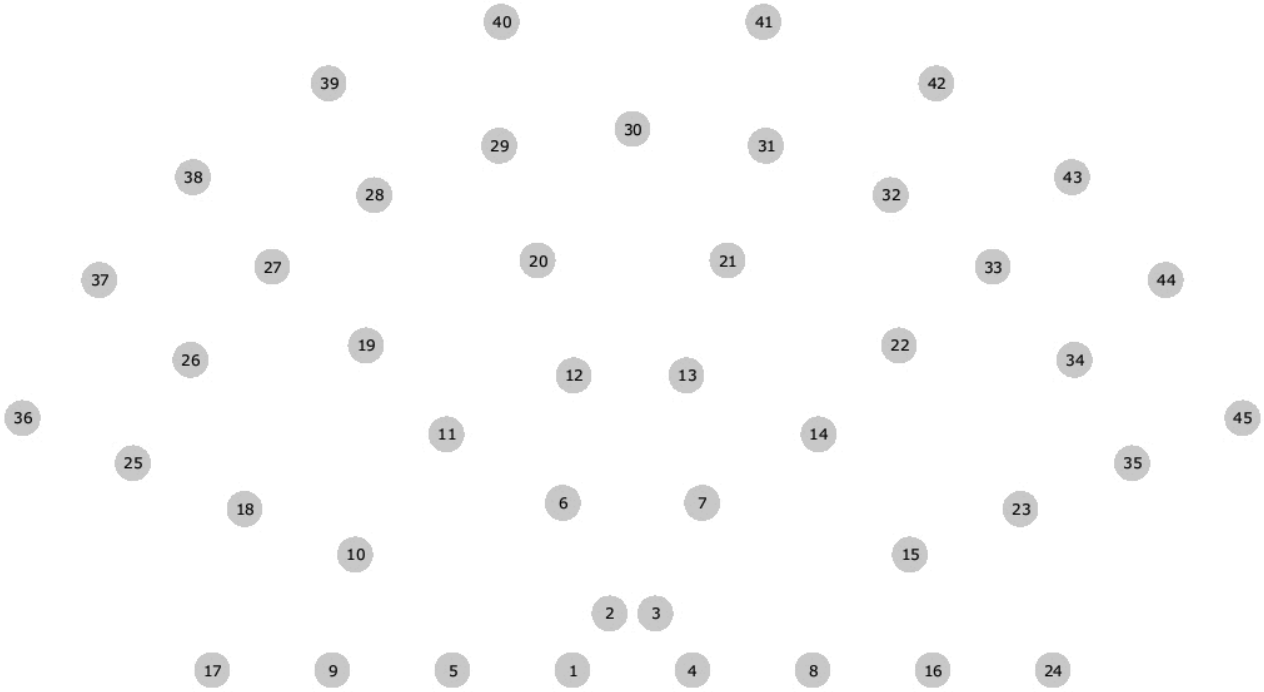
The soloist will have three harps on stage; one for each part of the piece.
Harp 1 is a pedal harp prepared with baking paper in between the strings. Harp 1 is slightly amplified with a microphone on the base of the instrument and a microphone on the strings. The loudspeaker should be on the same vertical level as the instrument. The animated score is read of a computer screen.
Harp 2 is an electric lever harp that is laying on a flat surface like a table or a box. The harp is amplified with a separate amplifier and is run through a distortion pedal. It is to be played with a rubber hose and a friction mallet. The animated score is read off a computer screen.
Harp 3 is a pedal harp prepared with a custom light notation array. It is to be played with two wooden mallets standing behind the instrument. The animated score is read off the custom light array placed on the soundboard.
By each harp on the floor is placed a little lamp that the soloist turns on before each movement begins and turns it off again when the movement is over. This is repeated for each harp for each movement.

The conductor

The piece does not require a human conductor since it is controlled by a computer.

The stage setup

The orchestra is to be seated in a traditional manner forming concentric half circles. Violins I and II, violas and cellos are sitting in desks.



Violin I desk 1-6:	1, 5, 9, 17, 10, 18
Violin II desk 1-6:	4, 8, 16, 24, 15, 23
Viola desk 1-4:	3, 7, 13, 14
Cello desk 1-4:	2, 6, 12, 11
Bass 1-4:	26, 25, 37, 36
Piccolo:	19
Flute:	20
Oboe:	21
English horn:	22
Bass clarinet:	30
Clarinet:	31
Bassoon:	32
Contra bassoon:	33
Horn 1-3:	29, 28, 27
Trumpet 1-2:	34, 35
Trombone:	43
Bass trombone:	44
Tuba:	45
Electric bass langspil:	38
Celesta:	39
Percussion 1-3:	40, 41, 42

The three harps are placed symmetrically in the front with the electric harp in the center lying on a box or small table.

Instrument remarks

Horns: Part 2 is played on a simple double reed made from a plastic drinking straw placed inside the mouthpiece. There is a lot of documentation online on how to make these reeds.

Electric bass langspil: the instrument is custom built for the piece by the composer. It is an electric monochord that has one low C harp wire string and a pickup. It is amplified through a good quality bass amplifier and played with a drum stick with rubber binding.

Celesta: Uses a plastic credit card to scrape back and forth on the wire mesh on top of the instrument in part 2.

Percussion: Each has a kit consisting of:
Part 1. log drum or other wooden drum.
Part 2. a larger drum with a victorian synthesizer (which I will provide) placed face down on the head. The drum is to act as a resonator for the synthesizer. Construction of the victorian synthesizer can be found in: 'Handmade Electronic Music: The Art of Hardware Hacking' by Nicolas Collins.
Part 3. a wind gong or similar non pitched metal object capable of producing a fair amount of sustained "noise", played on the edge with a thinner stick for maximum noise.
The three kits should sound slightly different from each other.

Tech rider

45 bright music stand lights that runs off 230 V that can handle being turned on and off multiple times during the performance of the piece. They should preferably all be the same type.

Power block for lights (only on/off is required) with minimum 45 channels.

Light controller with MIDI IN for control of 45 individual fader channels e.g. ETC Congo.

45 individual electrical connectors between the stand lights and power block.

3 extra stand lights - placed on the floor by each harp - that is turned on and off manually by the harpist.

2 OSC networked laptops (preferably Macs) running Pd-extended and the patches that controls the piece.

USB MIDI interface connected to light controller.

1 Arduino and custom light array for the harp placed on Harp 3*

1 modified electric fan sitting on a microphone stand and acting as a drone machine on the lowest wire strings on Harp 3*

Amplification for Harp 1 an 3 with two good condenser microphones.

Amplification for Harp 2 (electric harp) through good quality active DI box.

Wedge monitor speaker (e.g. Meyer Sound wide coverage stage monitor) for harps (mono is sufficient) should be placed on stage and in such a manner that a good sound diffusion and acoustic blend is obtained.

* the composer will provide this for the performance and details how to set it up.

Orchestra parts

Electric Light Orchestra

Jesper Pedersen

Violin I - desk 1/6, lamp 1

1: 

Knock chin-rest

Knock 1 time first increase by 1 knock each time.

// *Silence*

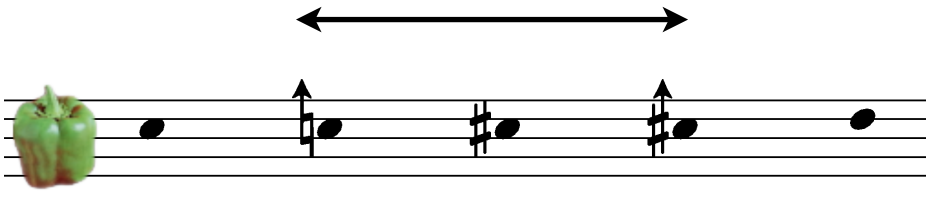
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin I - desk 2/6, lamp 5

1: Tap chin-rest

Tap 1 time first increase by 1 tap each time.

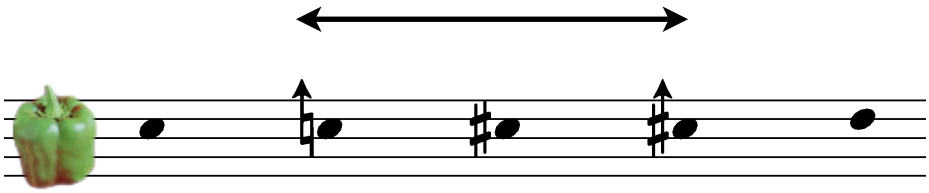
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin I - desk 3/6, lamp 9

1: Move chair softly

Just enough to make a sound.

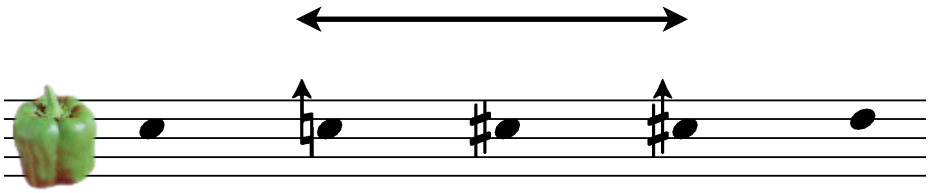
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin I - desk 4/6, lamp 17

1: Knock chin-rest

Knock 1 time first increase by 1 knock each time.

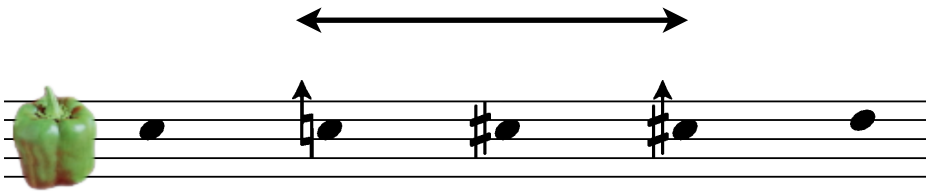
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin I - desk 5/6, lamp 10

1: Tap chin-rest

Tap 1 time first increase by 1 tap each time.

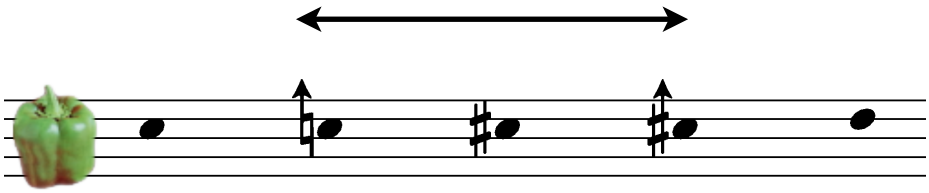
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin I - desk 6/6, lamp 18

1: 

Move chair softly

Just enough to make a sound.

// *Silence*

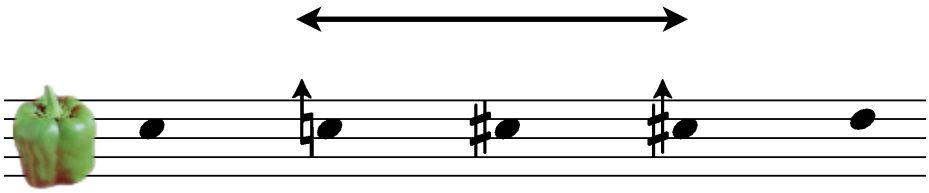
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin II - desk 1/6, lamp 4

1: Knock chin-rest

Knock 1 time first increase by 1 knock each time.

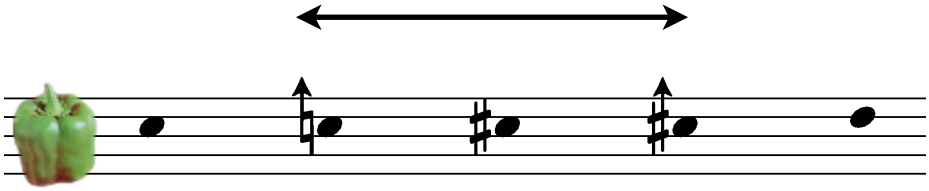
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin II - desk 2/6, lamp 8

1: Tap chin-rest

Tap 1 time first increase by 1 tap each time.

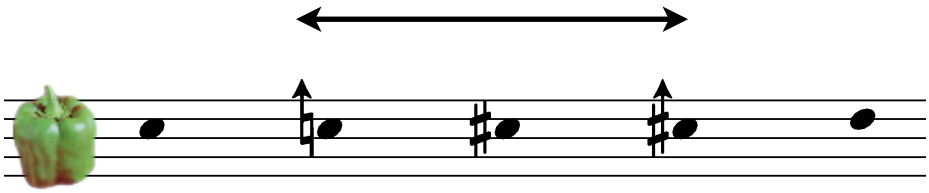
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin II - desk 3/6, lamp 16

1: Move chair softly

Just enough to make a sound.

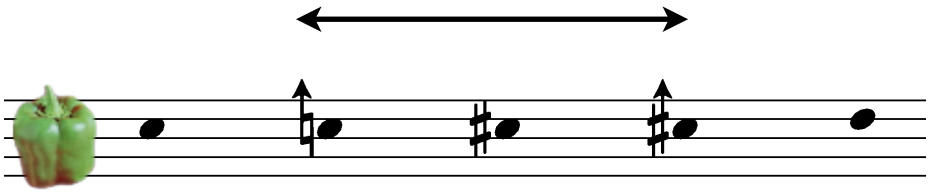
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin II - desk 4/6, lamp 24

1: 

Knock chin-rest

Knock 1 time first increase by 1 knock each time.

// *Silence*

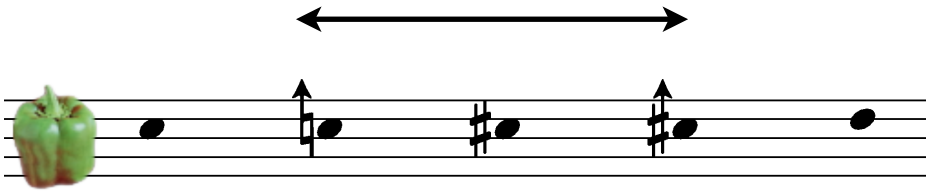
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin II - desk 5/6, lamp 15

1: Tap chin-rest

Tap 1 time first increase by 1 tap each time.

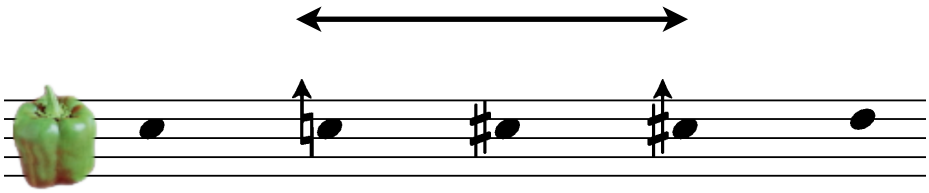
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Violin II - desk 6/6, lamp 23

1: Move chair softly

Just enough to make a sound.

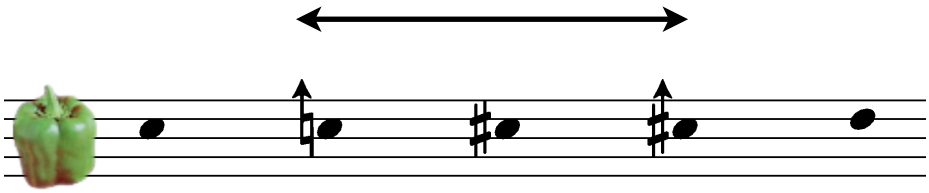
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Viola - desk 1/4, lamp 3

1: Knock chin-rest

Knock 1 time first increase by 1 knock each time.

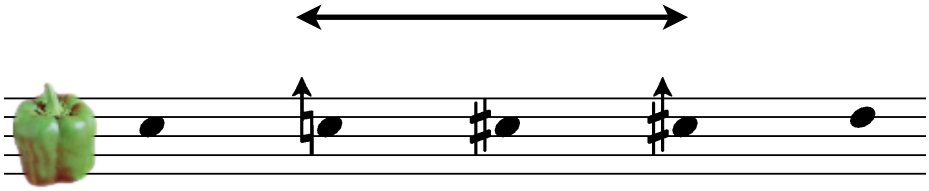
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Viola - desk 2/4, lamp 7

1: Tap chin-rest

Tap 1 time first increase by 1 tap each time.

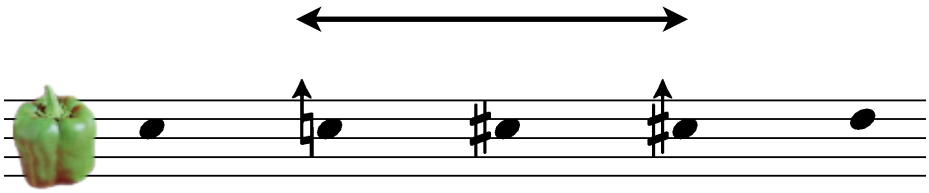
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Viola - desk 3/4, lamp 14

1: Move chair softly

Just enough to make a sound.

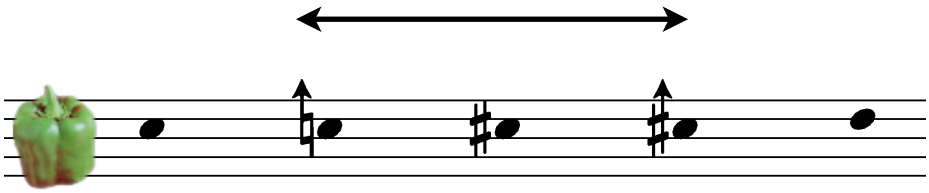
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Viola - desk 4/4, lamp 13

1: Knock chin-rest

Knock 1 time first increase by 1 knock each time.

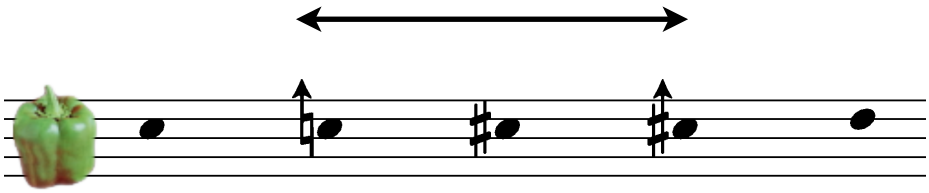
// *Silence*

2: Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3:



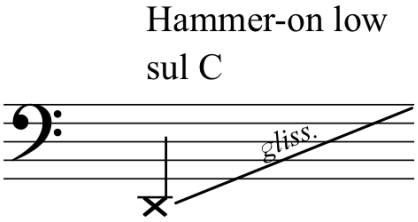
Any note in any transposition read in any direction.
Bow notes vertically from behind the bridge to ord with pressure.

Electric Light Orchestra

Jesper Pedersen

Cello - desk 1/4, lamp 2

1: 



// *Silence*

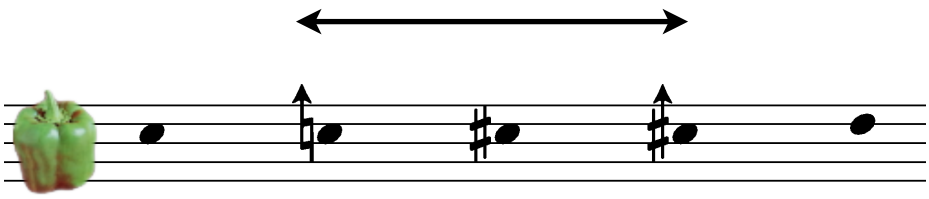
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



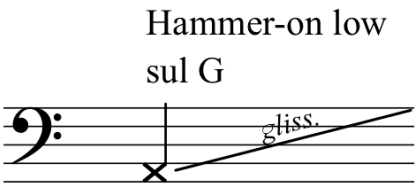
Any note in any transposition read in any direction.
Bow notes vertically from ord to behind the bridge with pressure.

Electric Light Orchestra

Jesper Pedersen

Cello - desk 2/4, lamp 6

1: 



// *Silence*

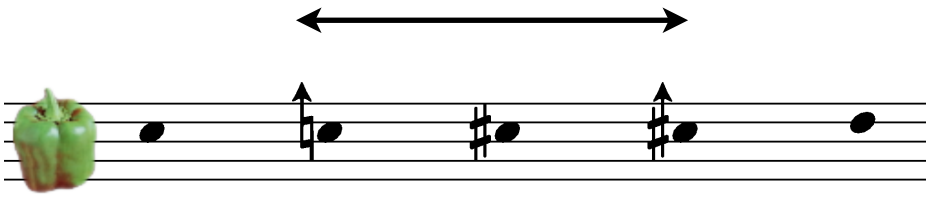
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



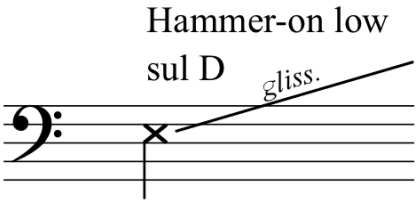
Any note in any transposition read in any direction.
Bow notes vertically from ord to behind the bridge with pressure.

Electric Light Orchestra

Jesper Pedersen

Cello - desk 3/4, lamp 11

1: 



// *Silence*

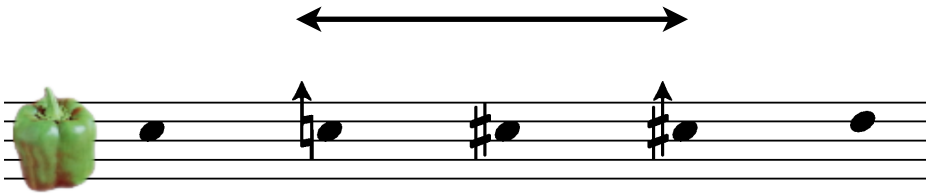
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



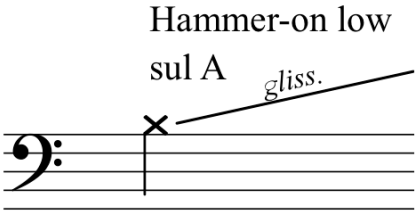
Any note in any transposition read in any direction.
Bow notes vertically from ord to behind the bridge with pressure.

Electric Light Orchestra

Jesper Pedersen

Cello - desk 4/4, lamp 12

1: 



// *Silence*

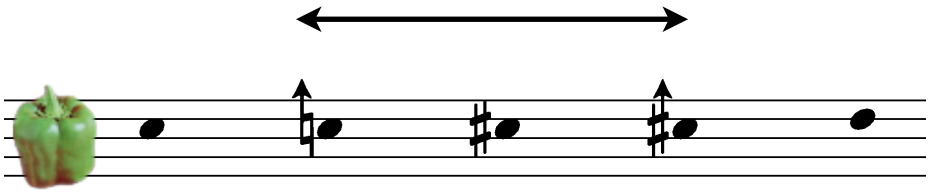
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



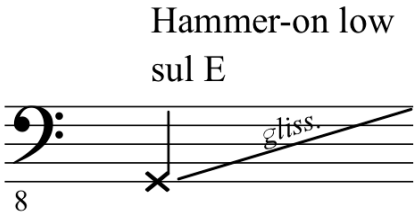
Any note in any transposition read in any direction.
Bow notes vertically from ord to behind the bridge with pressure.

Electric Light Orchestra

Jesper Pedersen

Bass - 1/4, lamp 26

1: 



// *Silence*

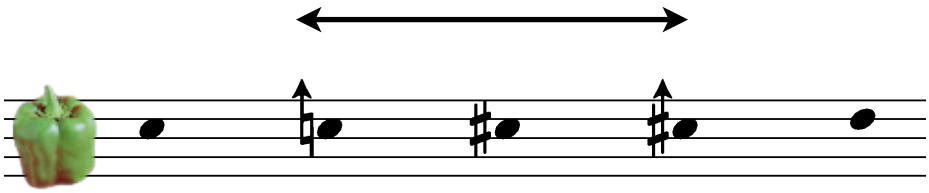
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



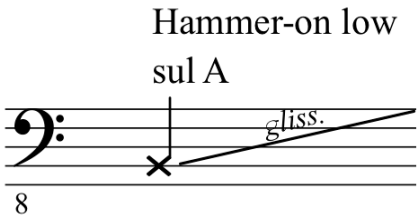
Any note in any transposition read in any direction.
Bow notes vertically from ord to behind the bridge with pressure.

Electric Light Orchestra

Jesper Pedersen

Bass - 2/4, lamp 25

1: 



// *Silence*

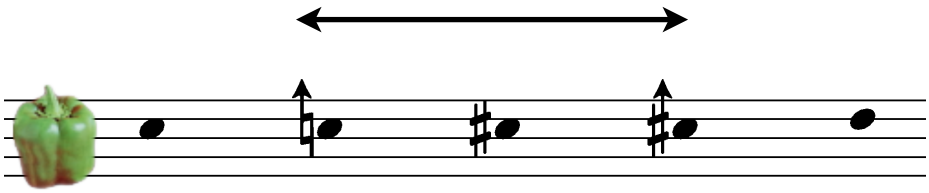
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



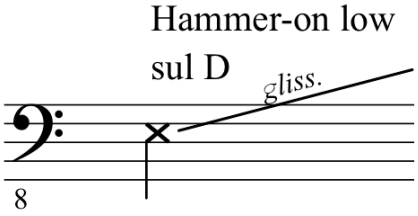
Any note in any transposition read in any direction.
Bow notes vertically from ord to behind the bridge with pressure.

Electric Light Orchestra

Jesper Pedersen

Bass - 3/4, lamp 37

1: 



// *Silence*

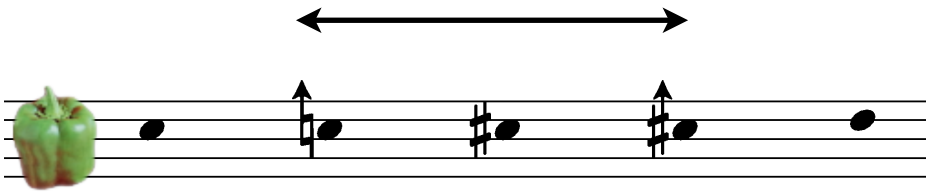
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



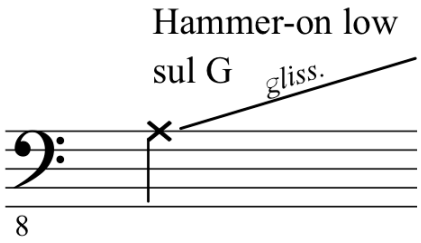
Any note in any transposition read in any direction.
Bow notes vertically from ord to behind the bridge with pressure.

Electric Light Orchestra

Jesper Pedersen

Bass - 4/4, lamp 36

1: 



// *Silence*

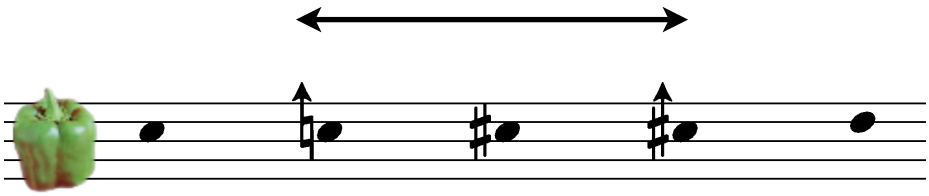
2: 

Noise for duration of light

Bow vertically up and down between ord and molto sul tasto with dampened strings. Medium speed and pressure.

// *Silence*

3: 



Any note in any transposition read in any direction.
Bow notes vertically from ord to behind the bridge with pressure.

Electric Light Orchestra

Jesper Pedersen

Electric bass langspil, lamp 38

1: 

Hit dampened string with stick

1 time first increment by 1 each time. Medium velocity.

// *Silence*

2: 

Scrape stick up and down string

Medium speed and pressure.

// *Silence*

3: 

Make some noise

Chaotic.

Electric Light Orchestra

Jesper Pedersen

Horn - 1/3, lamp 29

1: 

Hit mouthpiece with palm

1 time first increment by 1 each time. Medium velocity.

// *Silence*

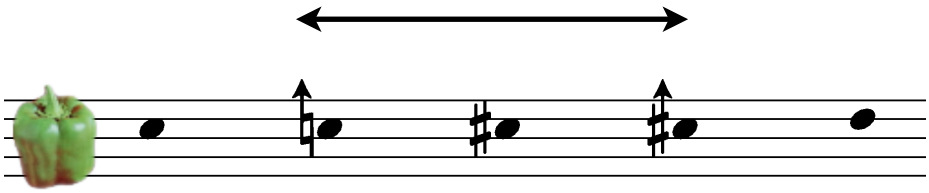
2: 

Play straw reed in mouthpiece

Irregular lower range pitches.

// *Silence*

3: 



Any note in any transposition read in any direction.

Electric Light Orchestra

Jesper Pedersen

Horn - 2/3, lamp 28

1: Hit mouthpiece with palm

1 time first increment by 1 each time. Medium velocity.

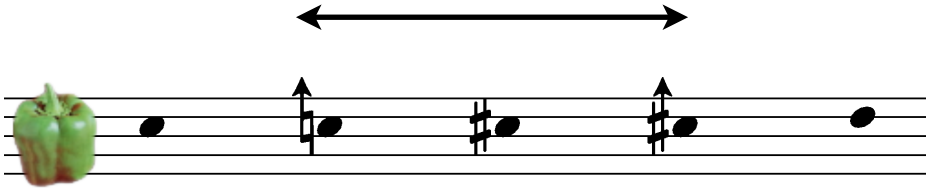
// *Silence*

2: Play straw reed in mouthpiece

Irregular lower range pitches.

// *Silence*

3:



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Horn - 3/3, lamp 27

1: Hit mouthpiece with palm

1 time first increment by 1 each time. Medium velocity.

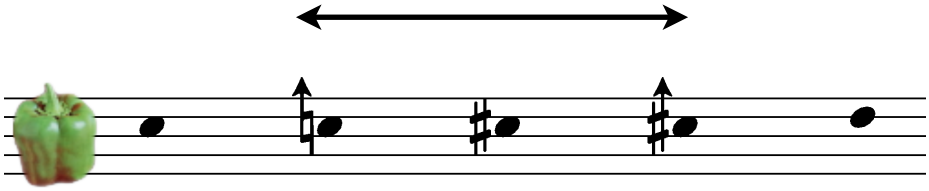
// *Silence*

2: Play straw reed in mouthpiece

Irregular lower range pitches.

// *Silence*

3:



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Piccolo, lamp 19

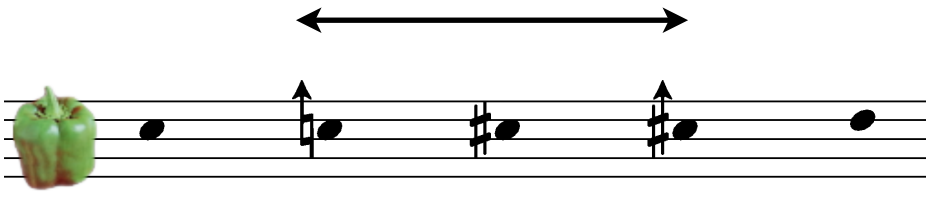
1:  **Slap tongue once on lowest note**

// *Silence*

2:  **Flutter tongue open air noise**

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Flute, lamp 20

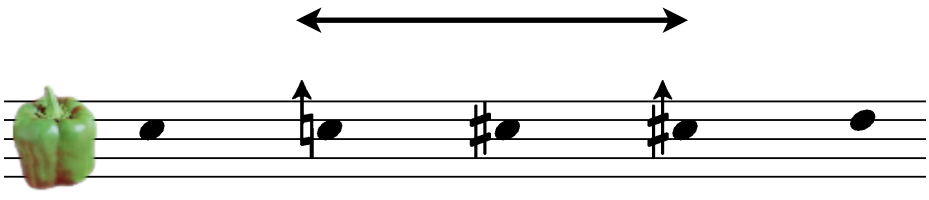
1:  **Slap tongue once on lowest note**

// *Silence*

2:  **Flutter tongue open air noise**

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Oboe, lamp 21

1: 

Move chair softly

Just enough to make a sound.

// *Silence*

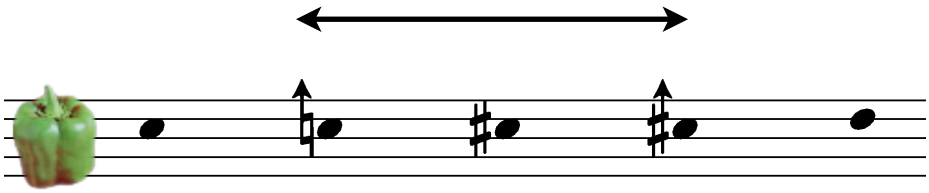
2: 

Irregular squeaking on reed only

As high pitch as possible.

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

English horn, lamp 22

1: 

Move chair softly

Just enough to make a sound.

// *Silence*

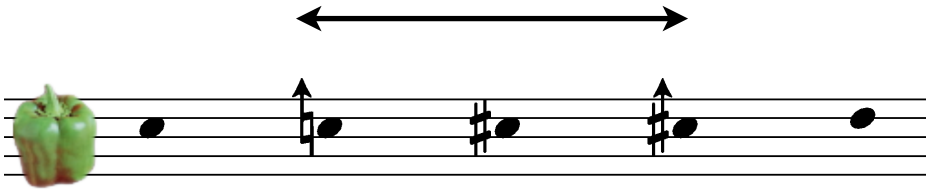
2: 

Irregular squeaking on reed only

As high pitch as possible.

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Bass clarinet, lamp 30

1:  **Slap tongue once on lowest note**

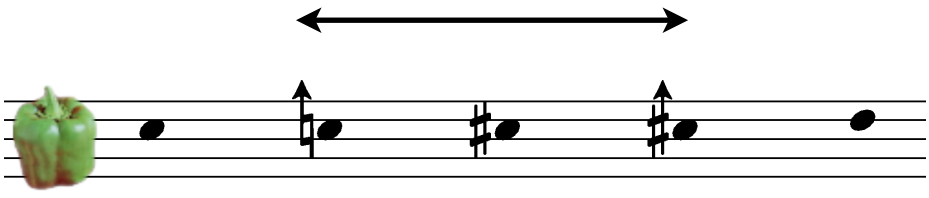
// *Silence*

2:  **Squeak as high as possible**

Irregular pitch but not too loud.

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Clarinet, lamp 31

1: 

Slap tongue once on lowest note

(or similar short attack noise)

// *Silence*

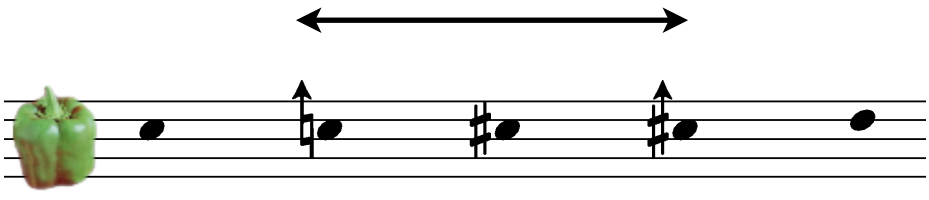
2: 

Squeak as high as possible

Irregular pitch but not too loud.

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Bassoon, lamp 32

1:  **Slap tongue once on lowest note**

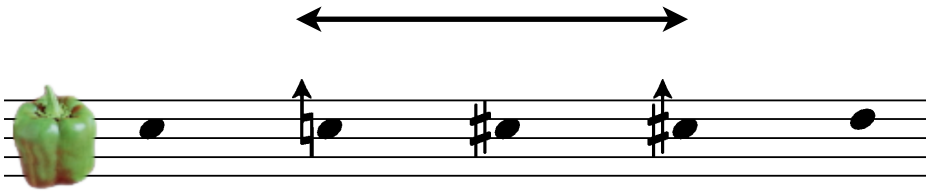
// *Silence*

2:  **Irregular squeaking on reed only**

As high pitch as possible.

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Contrabassoon, lamp 33

1: 

Slap tongue once on lowest note

// *Silence*

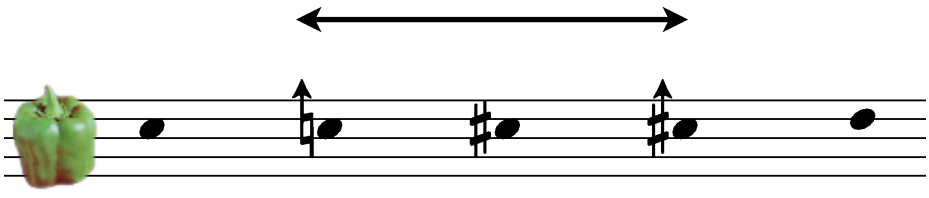
2: 

Irregular squeaking on reed only

As high pitch as possible.

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Trumpet 1/2, lamp 34

1: **Hit mouthpiece with palm**

1 time first increment by 1 each time. Medium force and velocity.

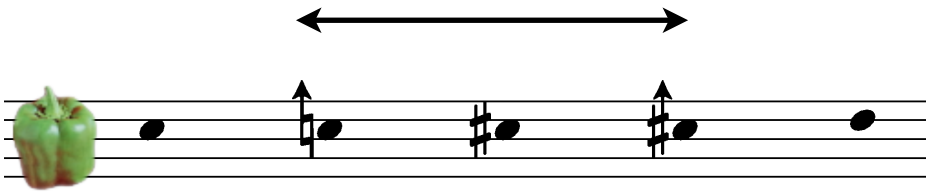
// *Silence*

2: **HRAUN**

Make a low back of the throat gurgling sound into the instrument.

// *Silence*

3:



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Trumpet 2/2, lamp 35

1: **Hit mouthpiece with palm**

1 time first increment by 1 each time. Medium force and velocity.

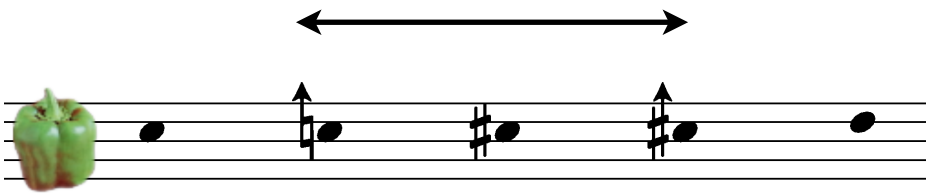
// *Silence*

2: **HRAUN**

Make a low back of the throat gurgling sound into the instrument.

// *Silence*

3:



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Trombone, lamp 43

1:

Hit mouthpiece with palm

1 time first increment by 1 each time. Medium force and velocity.

// *Silence*

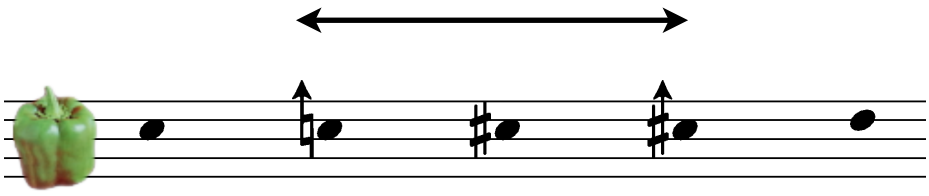
2:

HRAUN

Make a low back of the throat gurgling sound into the instrument.

// *Silence*

3:



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Bass trombone, lamp 44

1: 

Hit mouthpiece with palm

1 time first increment by 1 each time. Medium force and velocity.

// *Silence*

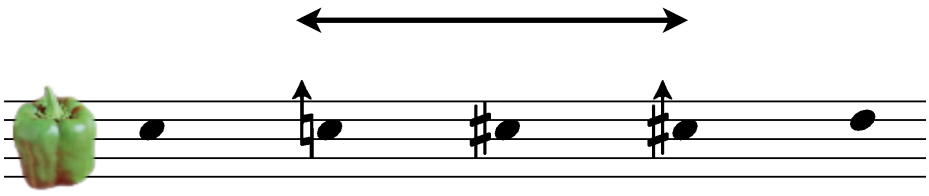
2: 

HRAUN

Make a low back of the throat gurgling sound into the instrument.

// *Silence*

3: 



Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Tuba, lamp 45

1: 

Hit mouthpiece with palm

1 time first increment by 1 each time. Medium force and velocity.

// *Silence*

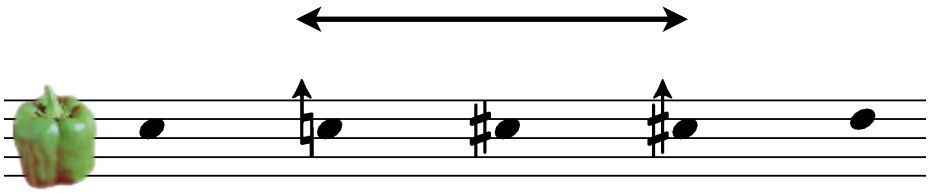
2: 

HRAUN for duration of light

Make a low back of the throat gurgling sound into the instrument.

// *Silence*

3: 



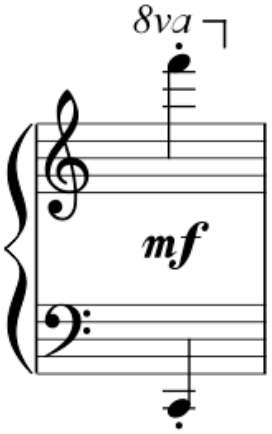
Any note in any transposition read in any direction.
Accent freely.

Electric Light Orchestra

Jesper Pedersen

Celesta, lamp 39

1: 



// *Silence*

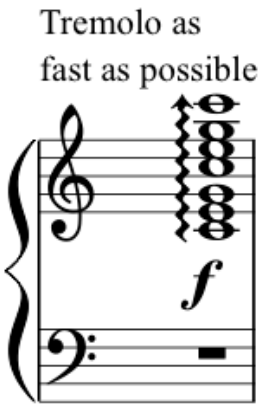
2: 

Scrape on top of celesta

Scrape credit card back and forth with medium pressure and speed.

// *Silence*

3: 



Electric Light Orchestra

Jesper Pedersen

Percussion 1/3, lamp 40

1:  Log drum 

// *Silence*

2:  **Victorian synthesizer**

On head of bass drum.

// *Silence*

3:  **Wind gong *mf (vary dynamics)***

On edge. Noisy.

* The three kits in the percussion section should sound slightly different from each other.

Electric Light Orchestra

Jesper Pedersen

Percussion 2/3, lamp 41

1:  Log drum 

// *Silence*

2: 

Victorian synthesizer

On head of larger tom tom.

// *Silence*

3: 

Wind gong *mf (vary dynamics)*

On edge. Noisy.

* The three kits in the percussion section should sound slightly different from each other.

Electric Light Orchestra

Jesper Pedersen

Percussion 3/3, lamp 42

1: 

Log drum 

// *Silence*

2: 

Victorian synthesizer

On head of medium tom tom.

// *Silence*

3: 

Wind gong *mf (vary dynamics)*

On edge. Noisy.

* The three kits in the percussion section should sound slightly different from each other.