

# עץ הדעת

## Ets HaDa'at

### (The Tree of Knowledge)

For flute, clarinet, bassoon, violin, violoncello, piano,  
soprano and electronics

לחליל, קלרנית, בסון, כינור, צ'לו, פסנתר, סופרן  
ואלקטטרוניקה

*for Ensemble Meitar*

לאנסמבל מיתר

Approximate duration: 12:30

משך משוער: 12:30

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## עין הדעת

מְאַזִּין...  
לְקָרְיאֹת,  
אֲנָחֹת, עַקְוֹת,  
קוֹלוֹת שֶׁכֹּל.

פעם,  
שְׁמֻעַתִּי רַק יִידִישׁ, עַבְרִית.

הַיּוֹם,  
פְּרִי הַדַּעַת פֶּקַח אָזְנוֹ;  
דְּמָמָה עֲרֵבִית בְּנֵבֶל פְּלִסְטִין  
עוֹלָה מִמְּחַפְּרָת כְּפָרִים.  
גָּעָרָה בְּלָתִי גְּרָאִית,  
פַּת-קְרָקְעִית,  
מַתְעַרְבֵּלֶת עִם סְבִּל עַבְרִי.

וְאַתֶּם,  
יְלִילּוֹת רְפָאִים: 'גַּעֲקָרִים' נוֹכָחים;  
אֲנָחוֹת הַגּוֹן הַעֲולֹות  
מִפְּיוֹת סְגָסּוֹגֶת בְּרִזְלָל, בְּטוֹן, בָּשָׂר;  
חַלְלֵי תְּפִתְחָת חֲגוּרָה,  
תְּפִתְחָת מְכוֹנִית,  
תְּפִתְחָת מְסֻוק וּמְטוֹסָס,  
תְּפִתְחָת טִיל  
תְּפִתְחָת טְנָק...  
שְׁנִינְיהם שׂוֹגִים לְמַעַשָּׂה.

מִתְנוֹדָא:  
צָעֵר הוּא צָעֵר,  
כָּאָב הוּא כָּאָב.  
קִיְשָׁגִיב, לוֹבִיא,  
גַּבְיוֹן, שְׁדָרוֹת.  
גַּמְ אָמ אַתְעַלְם,  
וּבְזֹו גַּמְ הַק.

מִבְין:  
את חַוָּה  
את אָדָם וּבָחָש.  
כִּיצְדָּה וּמִדְוע  
אֲזָרְחוֹת לְגַמְצָא וּלְגַעֲדָר.  
לְכָאָרָה אָזָק.  
אֲזָק מְבָדִיל  
שָׁלָם.  
בֵּין זֶה שְׁנוֹלֵד כָּאָנו  
וְזֶה שְׁפָאָנוּ נוֹלֵד.  
שְׁנִינְיהם שׂוֹגִים לְמַעַשָּׂה.

כֵּל עוֹד בְּלִכְבָּב פְּנִימָה  
גַּפְשׁ יְהוָה הַוְמִיחָה<sup>1</sup>,  
הַתְּזִכְרָה גַּפְשׁ מְוֹרֶשֶׁת?  
וְאַתְבָּתָה לְרַעַךְ כְּמוֹזָק<sup>2</sup>,  
מַה שְׁשַׁנוֹא עַלְיכָא לְפָעַשָּׂה...<sup>3</sup>  
הַתְּשִׁמְעָה יִשְׂרָאֵל?  
הַיְגָל כְּפִים מְשֻׁפְט  
יְצָקָה כְּנַחַל אַיִתָן?<sup>4</sup>  
הַנִּקְפָּר חָק לְאַזָּק?  
וְעַכְשָׁיו,  
מִשְׁׁטָעָמָת, טָעַמָּת:  
גַּם אָמ נְתַעַלְמָם,  
עַבְדָה, עֲוֹדָנוּ יוֹדָעִים!  
עַז הַדַּעַת עַמִּיק יְומִין,  
אַינוּ מְפִיר בָּאֵי יִדְיעָה;  
אַינוּ מוֹתִיר שְׁגָגָה.  
עַז הַדַּעַת אַינוּ מְסָגֵל  
לְמַהְל.

ירח פישמן - אוגוסט 2008 (Rajmil Fischman)

<sup>1</sup> תחילת "התקופה", המנון מדינת ישראל.

<sup>2</sup> וִיקְרָא, יט, יח.

<sup>3</sup> רב היל הוזן, ראה למשל ירhom שמשובץ, <http://www.kipa.co.il/pash/show.asp?id=149> .[http://he.wiktionary.org/wiki/העשה\\_להברך\\_אל\\_עליך\\_עליך](http://he.wiktionary.org/wiki/העשה_להברך_אל_עליך_עליך) – עמוס, ה, כד

English commentary in Schlesinger G. 2004. 'A Central Theistic Argument'. In Sample R. J., Mills C. W., Sterba J. P. (eds.) *Philosophy: The Big Questions*, 155-166. Blackwell Publishing: Oxford. - page 157

<sup>4</sup> יַגְלֵל כְּפִים מְשֻׁפְט וְצָקָה כְּנַחַל אַיִתָן – עמוס, ה, כד



# The Tree of Knowledge

*Yodea*<sup>5</sup>:  
I cannot ignore,  
deny what I do know.

*Mevin*<sup>6</sup>:  
understand  
Adam, Eve  
and the snake,  
their sin and their curse.  
The price of knowledge  
was paid!

*Mitvade*<sup>7</sup>:  
Sorrow is sorrow,  
grief is grief.  
Kishinev, Lubya,  
Jenin, Sderot.  
Some smitten with fires  
And some hit by laws.  
  
*Mishpat*<sup>8</sup>,  
laid down by law:  
lands and laws, covenants,  
aliens in their own land,  
present absentees.  
Evident justice.  
But justice that splits  
those who were born here  
from those who were here born.  
For they are not quite the same.

*Maazin*...<sup>9</sup>  
I listen to cries,  
sighs, screams,  
mourning calls.  
I used to hear  
only Yiddish, Hebrew.  
Today,  
the fruit of knowledge  
has gaped my ears:  
an Arabic stillness  
of Palestinian tinge,  
so silent and still,  
emerges from towns in the deep.  
It fuses with old Hebrew grief.  
  
They are one,  
choirs of ghostly wails:  
presence of found absentees;  
shrill emanations of pain  
uttered by mouths that are  
alloys of steel, cement and flesh;  
victims of hellish belts,  
hellish cars,  
helicopters and planes,  
missiles' hell  
tanks' hell.

*Kol od balevav p'nimah*  
*Nefesh Yehudi homiyah*<sup>10</sup>  
Will the soul respect its legacy?  
*Thou shalt love thy neighbour*  
*as thyself*<sup>11</sup>  
*Whatever is hateful to you*  
*do not do...*<sup>12</sup>  
Will you hear O Israel?  
*Will judgement run down as waters,*  
*and righteousness as a mighty stream?*<sup>13</sup>  
Will you turn law into justice?  
  
And now,  
you have tasted knowledge's fruit:  
you cannot ignore,  
deny whatever you know.  
*Ets HaDa'at*<sup>14</sup>,  
the ancient tree,  
does not permit to err by mistake;  
does not forgive;  
*Ets HaDa'at*<sup>14</sup> cannot...  
will not forget.

Rajmil Fischman, August 2008. English: May 2009

<sup>1</sup> Hebrew: *I know*.

<sup>2</sup> Hebrew: *I understand*.

<sup>3</sup> Hebrew: *I confess*.

<sup>4</sup> Hebrew: *Judgement, jurisprudence*.

<sup>5</sup> Hebrew: *I listen*.

<sup>6</sup> Hebrew: *As long as deep in the heart, the soul of a Jew yearns*. Beginning of *Hatikvah* (The Hope), Israel's national anthem.

<sup>7</sup> Leviticus 19:18.

<sup>8</sup> Rabbi Hillel (the old). English commentary in Schlesinger G. 2004. 'A Central Theistic Argument'. In Sample R. J., Mills C. W., Sterba J. P. (eds.) *Philosophy: The Big Questions*, 155-166. Blackwell Publishing: Oxford. - page 157.

<sup>9</sup> *But let judgement run down as waters, and righteousness as a mighty stream* (Amos 5: 24).

<sup>10</sup> Hebrew: *the Tree of Knowledge*.



# Notation

## General

1. Score in C.

2. Pauses

⌚ standard pause.

⌚ shorter pause.

## 3. Accidentals

3.1. Accidentals affect notes until the end of a bar.

3.2. Quarter tone notation

$\frac{3}{4}$  tone sharp ♯

$\frac{1}{4}$  tone sharp ♮

$\frac{1}{4}$  tone flat ♭

$\frac{3}{4}$  tone flat ♪

## 4. Dynamics

4.1. cresc. from silence (*niente*) ○—————

4.2. dim. to silence (*niente*) —————○

## 5. Vibrato

5.1. Slow regular vibrato ♯—————

5.2. Slow irregular vibrato ♯—————

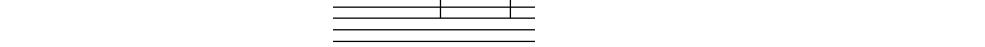
5.3. Progressively wider/narrower fast vibrato ♯—————

## 6. Other Notation

6.1. Unmeasured tremolo and tremolando



6.2. Highest possible pitch



6.3. Gradual transition between effects.

For example,

*tasto* -----> *pont*

indicates a transition from bowing a string instrument near the fingerboard to bowing near the bridge

## Woodwinds

### 1. Fluttertongue (*frullato*)

1.1. Fluttertongue on single notes

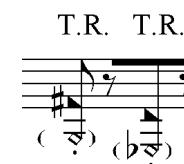


1.2. Fluttertongue on more than one note

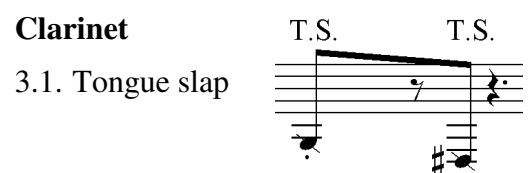
is indicated using the abbreviation *flttzg.*

### 2. Flute

2.1. Tongue ram: sounds a major seventh lower  
(indicated by a diamond shaped note)

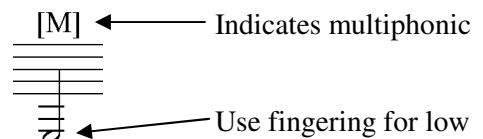


### 3. Clarinet



Clarinet multiphonics required in this work (bars 251-252) are obtained by increasing lip pressure and changing the embouchure using traditional fingerings (first type multiphonics).

For example:



If a multiphonic is not viable in a particular instrument, the performer may play another multiphonic with pitch/timbral content as close as possible to the original (i.e. the harmonics of the indicated pitch).

### 4. Bassoon Multiphonics

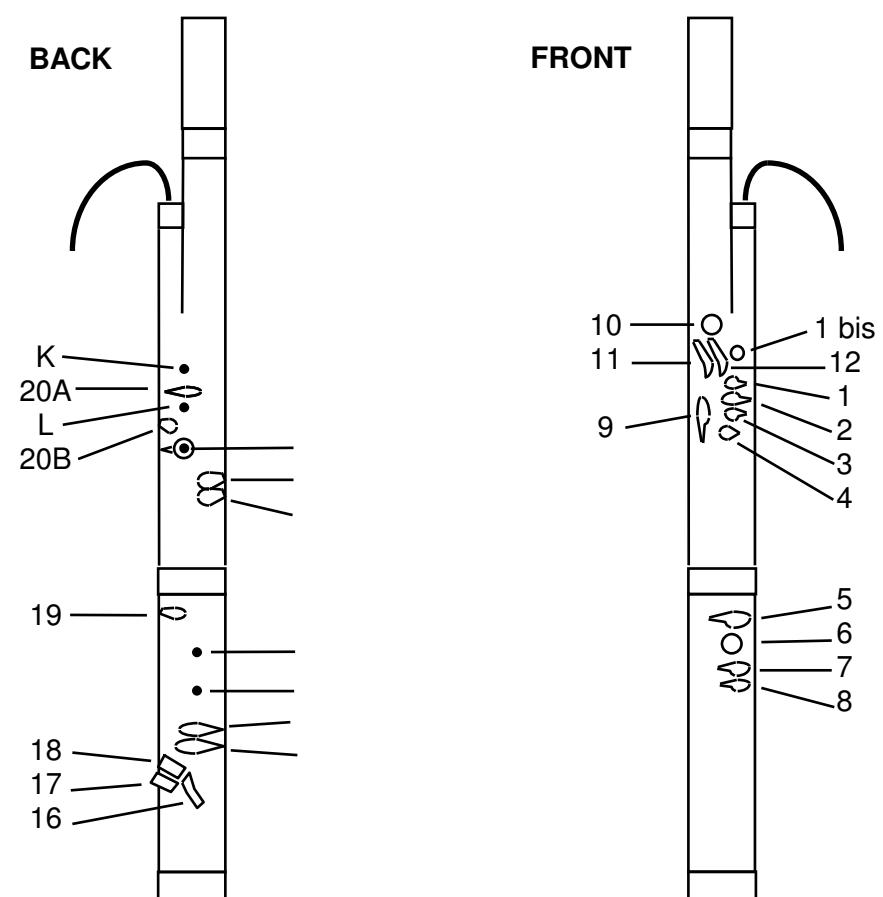
The fingerings for bassoon multiphonics given below are taken from Bartolozzi<sup>15</sup>.

If a multiphonic is not viable in a particular instrument, the performer may play another multiphonic with pitch/timbral content as close as possible to the original.

Bsn

bar 251      bar 252

### Bassoon



<sup>15</sup> Bartolozzi B. 1967. *New Sounds for Woodwind*. London: Oxford University Press.

## Strings

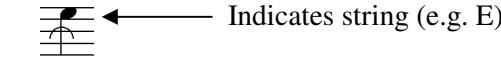
1. *flautando* - play *sul tasto* with no vibrato



2. Unmeasured off-the-string bounce (*jetté*)



3. Play behind the bridge on indicated string



4. Scratching noise

4.1. Fortissimo tone with scratching noise

4.2. Gradual *cresc.* to fortissimo tone with scratching noise

5. *ord.* - play (*arco* or *pizz*) ordinarily (cancels *pont.*, *tasto*, *col legno*, etc.).

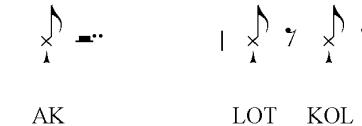
## Soprano

1. Grace note with falsetto an octave above (harmonic) followed by immediate transition to the following non-falsetto note, resulting in a 'moan' characteristically produced by some Ashkenazi Jewish cantors.



2. Speech

- 2.1. Rhythmic speech



AK

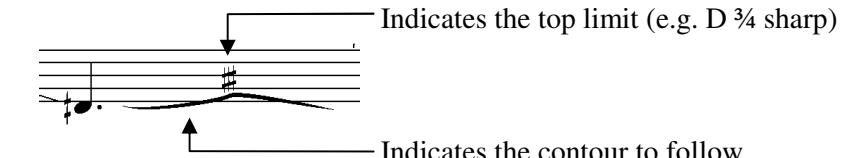
LOT KOL

- 2.2. Change from singing to speech



TO - SS

3. Portamento/pitch bend



Indicates the top limit (e.g. D ¾ sharp)

Indicates the contour to follow

4. Gradual transition between phonemes

For example, bar 239: a gradual transition between the syllables 'MI' and 'YA' half way through the duration of the first note (E quarter flat).



MI --> YA

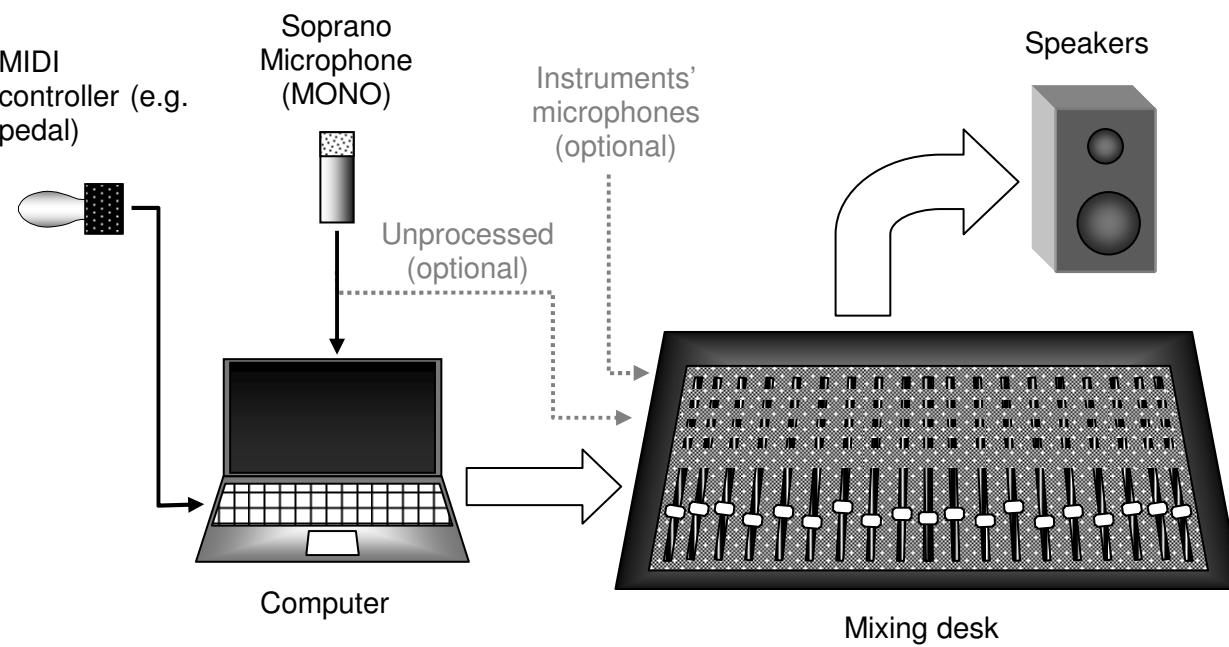
5. Bar 236

The International Phonetic Alphabet symbol 'ɛ' is used to denote a vowel midway between 'open' mouth (similar to 'a') and 'open-mid', and produced in the central palate. For more information see the website of the International Phonetic Association (<http://www.arts.gla.ac.uk/ipa/ipa.html>).

## Electronics

Electronics process the voice of the soprano, which is captured by means of a microphone. Processing is carried out using a MAX/MSP patch, which includes presets with the parameters and actions required in this work.

### 1. Connections



### 2. Microphone

- 2.1. The microphone must minimise capture of sounds other than the soprano's voice. Otherwise, louder passages may produce clipping and distortion.
- 2.2. The values of the **processing parameters** for the presets in this piece have been designed assuming a gain level of around -3 dB<sup>16</sup> for the output signal of the microphone amplifier feeding the computer. However, it is possible to make adjustments to input and output levels using the sliders available in the MAX/MSP main patch in order to adjust to different microphone gains.
- 2.3. Depending on the room characteristics and speakers' system, and in order to achieve satisfactory balance and timbral blending with the electronics, it may be desirable to route the unprocessed signal of the microphone directly to the mixing desk (indicated by the gray dotted line). For this reason, the MAX/MSP patch provides an additional output that clones the unprocessed microphone input, bypassing all processing.
- 2.4. For the same reasons, it may also be desirable to use microphones to amplify the instrumental ensemble.

<sup>16</sup> 0 dB in this case is the maximum input signal level that does not produce clipping; for instance an amplitude of 32,767 at 16 bit resolution.

### 3. Computer

This may be a desktop or a laptop with the following requirements:

- 3.1. Sufficient processing power to run the MAX/MSP patches efficiently in real time: this can be tested through the 'CPU Utilisation' panel in the MAX/MSP patch as follows:

- 3.1.1. Check that the 'Poll' box is ticked (if not, click on it to tick it).

- 3.1.2. Turn the audio on by clicking



- 3.1.3. Check the CPU utilisation: this should be less than 50%.

- 3.2. A high quality audio card.

- 3.3. Although it is not a requirement, a 'MIDI IN' inlet is highly desirable. This allows the use of a pedal to trigger the presets (see item 5 below).

### 4. MAX/MSP

- 4.1. The software provided includes a full MAX/MSP patch, including sources (must be run using the full version of *MAX/MSP*), as well as a self-contained runtime version, which can be run with the freely available *MAX/MSP Runtime*.

- 4.2. A set of files storing the presets used in this work is also provided. The procedure to load the presets into the MAX/MSP patch is explained below (see item 5).

- 4.3. Unless the processing capabilities restrictions of the computer do not allow it, MAX/MSP should be used with the following parameters

I/O Vector Size = 1024 or smaller.

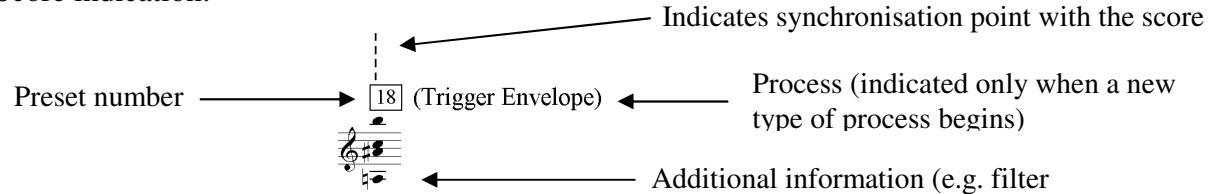
Signal Vector Size = 16 or smaller.

These can be set in the MAX/MSP DSP Status dialogue by clicking on the '...' button in the **main** MAX/MSP patch (bottom left, next to 'CPU Utilization').

## 5. Presets and MIDI Controller

- 5.1. The presets are contained in the file *Ets HaDa'at*, together with a set of files named *Ets HaDa'at\_Pxxx*, ('xxx' can be letters or numbers).
- 5.2. The presets should be loaded automatically when the MAX/MSP patch is opened. However, if for some reason it is necessary to load them manually, please follow the procedure below:
  - 5.2.1. Click on the 'LOAD' button in the **main** MAX/MSP patch.  
A file selector should appear.
  - 5.2.2. Navigate to the directory where the presets are stored, select the file *Ets HaDa'at* and click on 'Open'.  
The presets should be ready to use.
- 5.3. The presets are designed to carry out all the necessary operations automatically the moment they are triggered. Therefore, all the operator needs to do is trigger the presets sequentially at the precise moment indicated by the score.

### 5.4. Score indication:



### 5.5. Presets can be triggered sequentially in one of three ways:

- 5.5.1. Tapping a MIDI controller (e.g. MIDI pedal connected to the computer).
  - 5.5.2. Pressing on the right triangle under the preset number in the MAX/MSP patch.
  - 5.5.3. Pressing 'k' in the computer keyboard.
- 5.6. Because of the nature of some processes, which require synchronised recording of specific soprano utterances, it is highly recommended that the soprano herself triggers the presets using a MIDI controller.

## 6. QList

Preset 32 requires a QList for use in the **granulator** sub-patch. This should be loaded automatically when the main MAX/MSP patch is opened. However, if for some reason it is necessary to load them manually, please follow the procedure below:

### 6.1. Select the **granulator (4 outputs)** process in the **main** MAX/MSP patch menu

### 6.2. Click on 'LOAD' in the **granulator** sub-patch.

A file selector should appear.

### 6.3. Navigate to the directory where the QList file *EtsHaDa'atQlist.txt* is stored, select this and click on 'Open'.

The QList should be ready to use.

## 7. Speakers

7.1. Although the output of the MAX/MSP patch has a limited number of channels (e.g. stereo, etc.), it is desirable to use a multi-speaker system to diffuse the sound effectively and cater for the characteristics of the particular performance space.

7.2. Care should be taken to position the speakers so that no feedback is produced due to the microphone(s).

## Processing Parameters

The values of the processing parameters have been designed assuming a gain level of -2 to -3 dB<sup>17</sup> for the microphone signal feeding the input of the computer audio card:  
Please note that it is possible to make adjustments to input and output levels using the sliders available in the MAX/MSP main patch.

Preset Number	Process		Parameters	Location in score
1	Granulator + Comb	Granulator	Density = 3 – 14.88 grains/sec Grain duration = 2 – 6 ms Position = 700.05 ms Wander = 700.05 ms Gain = -3 dB Sample dur. = 1.5 sec Cloud envelope duration = 10 sec <b>Mode= Trigger REC</b> Cloud envelope = fade in (4.33 sec) – steady state (2.08 sec) - fade out (3.6 sec); exponential Grain envelope = Chant (Attack = 5 ms, Decay=5 ms, BW = 1500 Hz)	Bar 63
		Comb	Filter 1 = E4 Filter 2 = F#4 Filter 3 = C5 Filter 4 = F5 Intensity = 0.914 Rand LFO = 0.6 Hz Max LFO scatter = 50 % LFO phase shift = 0.1 Output gain = -3 dB Envelope = half sine	
		MAIN	Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	
2	Granulator + Comb	Granulator	Density = 3 – 14.88 grains/sec Grain duration = 2 – 6 ms Position = 700.05 ms Wander = 700.05 ms Gain = -3 dB Sample dur. = 1.5 sec Cloud envelope duration = 10 sec <b>Mode= Trigger Envelope</b> Cloud envelope = fade in (4.33 sec) – steady state (2.08 sec) - fade out (3.6 sec); exponential Grain envelope = Chant (Attack = 5 ms, Decay=5 ms, BW = 1500 Hz)	Bar 67
		Comb	Filter 1 = E4 Filter 2 = F#4 Filter 3 = C5 Filter 4 = F5 Intensity = 0.914 Rand LFO = 0.6 Hz Max LFO scatter = 50 % LFO phase shift = 0.1 Output gain = -3 dB Envelope = half sine	
		MAIN	Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	

<sup>17</sup> 0 dB in this case is the maximum input signal level that does not produce clipping; for instance an amplitude of 32,767 at 16 bit resolution.

Preset Number	Process		Parameters	Location in score
3	Granulator + Comb	Granulator	Density = 28 – 43.88 grains/sec Grain duration = 473 – 969 ms Position = 30.03 ms Wander = 30.03 ms Gain = -4 dB Sample dur. = 1.1 sec Cloud envelope duration = 10 sec <b>Mode = Trigger REC and Envelope</b> Cloud envelope = fade in (2.06 sec) – steady state (3.54 sec) - fade out (4.4 sec); exponential Grain envelope = Hanning	Bar 74
		Comb	Filter 1 = B4 Filter 2 = C#5 Filter 3 = D5 Filter 4 = F5 Intensity = 0.725 Rand LFO = 0.1 Hz Max LFO scatter = 53 % LFO phase shift = 0.47 Output gain = -4.8 dB Envelope = half sine	
		MAIN	Pan/ Doppler Rate = 4 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	
4	stharms1~		<b>Input ON</b> OUT 1 transp = -95 cnts OUT 1 window size = 598 ms OUT 1 delay = 613 ms OUT 1 output = 120 OUT 2 transp = 55 cnts OUT 2 window size = 878 ms OUT 2 delay = 991 ms OUT 2 output = 120 global feedback = 0.64 global volume = 127	Bar 90
			Pan/ Doppler Rate = 3 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	
5	stharms1~		<b>Input OFF</b> OUT 1 transp = -95 cnts OUT 1 window size = 598 ms OUT 1 delay = 613 ms OUT 1 output = 120 OUT 2 transp = 55 cnts OUT 2 window size = 878 ms OUT 2 delay = 991 ms OUT 2 output = 120 global feedback = 0.64 global volume = 127	Bar 91
			Pan/ Doppler Rate = 3 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
6	Granulator + Comb	Granulator	Density = 28 – 43.88 grains/sec Grain duration = 473 – 969 ms Position = 503.03 ms Wander = 492.03 ms Sample dur. = 1.1 sec Gain = -8 dB Cloud envelope duration = 8.2 sec <b>Mode= Trigger Envelope</b> Cloud envelope = fade in (3.37 sec) – steady state (1.44 sec) - fade out (3.39 sec); exponential Grain envelope = Hanning	Bar 105
		Comb	Filter 1 = D#5 Filter 2 = F#5 Filter 3 = G5 Filter 4 = A5 Intensity = 0.984 Rand LFO = 0.1 Hz Max LFO scatter = 53 % LFO phase shift = 0.47 Output gain = -6 dB Envelope = half sine	
		MAIN	Pan/ Doppler Rate = 3 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	
7	Settle's stchorus1~	stchorus1~	LFO speed = 1.37076 LFO depth = 115 output level = 117	Bar 112
		MAIN	Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	
8	Granulator + Comb	Granulator	Density = 46 – 79.88 grains/sec Grain duration = 56 - 73 ms Position = 60 ms Wander = 100 ms Gain = -2.5 dB Sample dur. = 0.5 sec Cloud envelope duration = 3 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 1: fade out exponential Grain envelope = Hanning	Bar 119
		Comb	Filter 1 = A2 Filter 2 = G3 Filter 3 = G#3 Filter 4 = D#4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -5.4 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
9	Granulator + Comb	Granulator	Density = 46 – 79.88 grains/sec Grain duration = 56 - 73 ms Position = 60 ms Wander = 100 ms Gain = -2.5 dB Sample dur. = 0.5 sec Cloud envelope duration = 3 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 1: fade out exponential Grain envelope = Hanning	Bar 120
		Comb	Filter 1 = A2 Filter 2 = G3 Filter 3 = G#3 Filter 4 = D#4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -5.4 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	
10	Granulator + Comb	Granulator	Density = 46 – 79.88 grains/sec Grain duration = 56 - 73 ms Position = 60 ms Wander = 100 ms Gain = -4.5 dB Sample dur. = 0.5 sec Cloud envelope duration = 3 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 1: fade out exponential Grain envelope = Hanning	Bar 121
		Comb	Filter 1 = A2 Filter 2 = G3 Filter 3 = G#3 Filter 4 = D#4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -5.4 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
11	Granulator + Comb	Granulator	Density = 46 – 79.88 grains/sec Grain duration = 56 – 73 ms Position = 60 ms Wander = 100 ms Gain = -2.5 dB Sample dur. = 0.5 sec Cloud envelope duration = 3 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 1: fade out exponential Grain envelope = Hanning	Bar 121
		Comb	Filter 1 = F2 Filter 2 = C#3 Filter 3 = D#3 Filter 4 = D4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -7.2 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 1.3 Speaker dist. = 10 m	
12	Granulator + Comb	Granulator	Density = 84 – 134.88 grains/sec Grain duration = 73 - 173 ms Position = 1000 ms Wander = 935.2 ms Gain = -7.5 dB Sample dur. = 2 sec Cloud envelope duration = 15 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = fade in (3.6 sec) – steady state (7.4 sec) - fade out (4 sec); exponential Grain envelope = Hanning	Bar 123
		Comb	Filter 1 = C#3 Filter 2 = G#3 Filter 3 = A3 Filter 4 = C4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -8.4 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 5 pts/sec Max Pan = 1.5 Speaker dist. = 3 m	

Preset Number	Process		Parameters	Location in score
13	Granulator + Comb	Granulator	Density = 46 – 79.88 grains/sec Grain duration = 56 – 73 ms Position = 60 ms Wander = 100 ms Gain = -4.5 dB Sample dur. = 0.5 sec Cloud envelope duration = 5 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 1: fade out exponential Grain envelope = Hanning	Bar 126
		Comb	Filter 1 = G2 Filter 2 = F#3 Filter 3 = G#3 Filter 4 = F4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -5.4 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 1.0 Speaker dist. = 10 m	
14	Granulator + Comb	Granulator	Density = 46 – 79.88 grains/sec Grain duration = 56 – 73 ms Position = 60 ms Wander = 100 ms Gain = -5 dB Sample dur. = 0.5 sec Cloud envelope duration = 3 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 1: fade out exponential Grain envelope = Hanning	Bar 127
		Comb	Filter 1 = C3 Filter 2 = A#3 Filter 3 = B3 Filter 4 = F#4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -5.4 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2.5 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
15	Granulator + Comb	Granulator	Density = 46 – 79.88 grains/sec Grain duration = 56 – 73 ms Position = 60 ms Wander = 100 ms Gain = -5.5 dB Sample dur. = 0.5 sec Cloud envelope duration = 5 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 1: fade out exponential Grain envelope = Hanning	Bar 127
		Comb	Filter 1 = C3 Filter 2 = A#3 Filter 3 = B3 Filter 4 = F#4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -6.6 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 3 pts/sec Max Pan = 1.3 Speaker dist. = 10 m	
16	Granulator + Comb	Granulator	Density = 84 – 134.88 grains/sec Grain duration = 73 - 173 ms Position = 1300 ms Wander = 650 ms Gain = -7.5 dB Sample dur. = 2 sec Cloud envelope duration = 14 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = fade in (2 sec) – steady state (9 sec) - fade out (3 sec); exponential Grain envelope = Hanning	Bar 128
		Comb	Filter 1 = G#2 Filter 2 = G3 Filter 3 = A#3 Filter 4 = A4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -8.4 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 6 pts/sec Max Pan = 1.65 Speaker dist. = 3 m	

Preset Number	Process		Parameters	Location in score
17	Granulator + Comb	Granulator	Density = 124 – 171.88 grains/sec Grain duration = 56 - 73 ms Position = 60 ms Wander = 100 ms Gain = -6 dB Sample dur. = 0.5 sec Cloud envelope duration = 5 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 1: fade-out exponential Grain envelope = Hanning	Bar 132
		Comb	Filter 1 = F#2 Filter 2 = F3 Filter 3 = D4 Filter 4 = C#5 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -6.6 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 5 pts/sec Max Pan = 1.7 Speaker dist. = 5 m	
18	Granulator + Comb	Granulator	Density = 124 – 171.88 grains/sec Grain duration = 56 - 73 ms Position = 60 ms Wander = 100 ms Gain = -12 dB Sample dur. = 0.5 sec Cloud envelope duration = 11.05 sec <b>Mode= Trigger Envelope</b> Cloud envelope = fade in (4.95 sec) – fade out (6.1 sec); exponential Grain envelope = Blackman-Harris	Bar 144
		Comb	Filter 1 = A2 Filter 2 = A#3 Filter 3 = C4 Filter 4 = B4 Intensity = 0.945 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = 0 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 2 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
19	Settle's stchorus1~	MAIN	LFO speed = 0 LFO depth = 107 output level = 114	Bar 156
			Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 2 Speaker dist. = 10 m	
20	Settle's stchorus1~	MAIN	LFO speed = 3.2851 Hz LFO depth = 112 output level = 114	Bar 157
			Pan/ Doppler Rate = 7 pts/sec Max Pan = 2 Speaker dist. = 0 m	
21	None			Bar 167
22	Settle's stchorus1~	MAIN	LFO speed = 8.84603 LFO depth = 122 output level = 113	Bar 172
			Pan/ Doppler Rate = 10 pts/sec Max Pan = 1.5 Speaker dist. = 0 m	
23	Settle's stharms1~	MAIN	<b>Input ON</b> OUT 1 transp = 93 cnts OUT 1 window size = 528 ms OUT 1 delay = 613 ms OUT 1 output = 127 OUT 2 transp = -322 cnts OUT 2 window size = 1098 ms OUT 2 delay = 1322 ms OUT 2 output = 127 global feedback = 0.76 global volume = 118	Bar 176
			Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 2 Speaker dist. = 10 m	
24	Settle's stharms1~	MAIN	<b>Input OFF</b> OUT 1 transp = 93 cnts OUT 1 window size = 528 ms OUT 1 delay = 613 ms OUT 1 output = 127 OUT 2 transp = -322 cnts OUT 2 window size = 1098 ms OUT 2 delay = 1322 ms OUT 2 output = 127 global feedback = 0.46 global volume = 118	Bar 187
			Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 2 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
25	Settle's stharms1~		<b>Input ON</b> OUT 1 transp = 93 cnts OUT 1 window size = 528 ms OUT 1 delay = 613 ms OUT 1 output = 127 OUT 2 transp = -397 cnts OUT 2 window size = 1098 ms OUT 2 delay = 1322 ms OUT 2 output = 127 global feedback = 0.76 global volume = 118	Bar 205
			MAIN Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 2 Speaker dist. = 10 m	
26	Settle's stharms1~		<b>Input OFF</b> OUT 1 transp = 93 cnts OUT 1 window size = 528 ms OUT 1 delay = 613 ms OUT 1 output = 127 OUT 2 transp = -397 cnts OUT 2 window size = 1098 ms OUT 2 delay = 1322 ms OUT 2 output = 127 global feedback = 0.76 global volume = 118	Bar 212
			MAIN Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 2 Speaker dist. = 10 m	
27	Granulator + Comb	Granulator	Density = 124 – 171.88 grains/sec Grain duration = 56 - 73 ms Position = 60 ms Wander = 100 ms Gain = -6.5 dB Sample dur. = 0.5 sec Cloud envelope duration = 7 sec Mode= Trigger REC and Envelope Cloud envelope = preset 1: fade-out exponential Grain envelope = Hanning	Bar 218
			Comb Filter 1 = B2 Filter 2 = A3 Filter 3 = A#3 Filter 4 = G#4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -12 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 2 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
28	Granulator + Comb	Granulator	Density = 28 – 43.88 grains/sec Grain duration = 473 - 969 ms Position = 30.03 ms Wander = 30.03 ms Gain = -4 dB Sample dur. = 1.1 sec Cloud envelope duration = 9 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = fade in (2.06) – steady state (2.52) - fade out (4.42); exponential Grain envelope = Hanning	Bar 225
		Comb	Filter 1 = E2 Filter 2 = D#3 Filter 3 = F4 Filter 4 = G5 Intensity = 0.647 Rand LFO = 0.1 Hz Max LFO scatter = 53 % LFO phase shift = 0.47 Output gain = -2.4 dB Envelope = half sine	
		MAIN	Pan/ Doppler Rate = 4 pts/sec Max Pan = 1.1 Speaker dist. = 3 m	
29	Granulator + Comb	Granulator	Density = 3 – 14.88 grains/sec Grain duration = 2 – 6 ms Position = 700.04 ms Wander = 700.04 ms Gain = 0 dB Sample dur. = 1.1 sec Cloud envelope duration = 10 sec <b>Mode= Trigger Envelope</b> Cloud envelope = fade in (4.33 sec) – steady state (2.08 sec) - fade out (3.6 sec); exponential Grain envelope = Chant (Attack = 5 ms, Decay=5 ms, BW = 1500 Hz)	Bar 229
		Comb	Filter 1 = E4 Filter 2 = F#4 Filter 3 = C5 Filter 4 = F5 Intensity = 0.914 Rand LFO = 0.6 Hz Max LFO scatter = 50 % LFO phase shift = 0.1 Output gain = 0 dB Envelope = half sine	
		MAIN	Pan/ Doppler Rate = 1.5 pts/sec Max Pan = 1.1 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
30	Granulator + Comb	Granulator	Density = 124 – 171.88 grains/sec Grain duration = 56 - 73 ms Position = 100 ms Wander = 100 ms Gain = -1 dB Sample dur. = 0.5 sec Cloud envelope duration = 8 sec <b>Mode= Trigger Envelope</b> Cloud envelope = steady state (0.8 sec) fade-out (7.2 sec) ; exponential Grain envelope = Hanning	Bar 235
		Comb	Filter 1 = B3 Filter 2 = C4 Filter 3 = C#4 Filter 4 = A#4 Intensity = 0.984 Rand LFO = 11.6 Hz Max LFO scatter = 4 % LFO phase shift = 0.23 Output gain = -10.2 dB Envelope = blip preset	
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 2 Speaker dist. = 10 m	
31	Granulator	Granulator	Density = 3-6 grains/sec Grain duration = 999-2000 ms Position = 809.7 ms Wander = 179.7 ms Gain = -11 dB Sample dur. = 3 sec Cloud envelope duration = 6 sec <b>Mode= Trigger REC and Envelope</b> Cloud envelope = preset 2: fade-in exponential Grain envelope = Hanning <b>Qlist ON</b> List ID 1 <b>Qlist content</b> 0 1 densityValue1 3, 33 10000; densityValue2 6, 48 9900; durationValue1 999, 79 9800; durationValue2 2000, 136 9850; position 809.7, 1400.1 10300; wander 179.7, 1400.1 10400; gaindB -11, -15 7000;	Bar 239
		MAIN	Pan/ Doppler Rate = 2 pts/sec Max Pan = 2 Speaker dist. = 10 m	

Preset Number	Process		Parameters	Location in score
32	Granulator	Granulator	<p>Density = 33-48 grains/sec        Grain duration = 79-136 ms        Position = 1400.1 ms        Wander = 1400.1 ms        Gain = -15 dB        Sample dur. = 3 sec        Cloud envelope duration = 6 sec  <b>Mode= Trigger Envelope</b>        Cloud envelope = preset 1: fade-out exponential        Grain envelope = Hanning  <b>Qlist OFF</b></p>	Bar 253
		MAIN	<p>Pan/ Doppler Rate = 2 pts/sec        Max Pan = 2        Speaker dist. = 10 m</p>	
33	Granulator + Combs + Settle's stharms1~	Granulator	<p>Density = 33-48 grains/sec        Grain duration = 79-136 ms        Position = 1400.1 ms        Wander = 1400.1 ms        Gain = -2.5 dB        Sample dur. = 3 sec        Cloud envelope duration = 6 sec  <b>Mode= Trigger REC and Envelope</b>        Cloud envelope = fade-in (1 sec; linear) fade-out (5 sec; exponential)        Grain envelope = Hanning</p>	Bar 299 .
		Comb	<p>Filter 1 = F#2        Filter 2 = F3        Filter 3 = E4        Filter 4 = D#5.        Intensity = 0.945        Rand LFO = 3.5 Hz        Max LFO scatter = 21 %        LFO phase shift = 0.54        Output gain = -1.8 dB        Envelope = half sine</p>	
		stharms1~	<p><b>Input ON</b>        OUT 1 transp = -20 cnts        OUT 1 window size = 528 ms        OUT 1 delay = 188 ms        OUT 1 output = 127        OUT 2 transp = 55 cnts        OUT 2 window size = 818 ms        OUT 2 delay = 267 ms        OUT 2 output = 127        global feedback = 0.76        global volume = 118</p>	
		MAIN	<p>Pan/ Doppler Rate = 2 pts/sec        Max Pan = 1.1        Speaker dist. = 10 m</p>	

**Fl.** *moltof*  
**Cl.** *moltof*  
**Bsn.**  
**S.**  
**Pno.** *moltof* *moltof* *f* *ff* *ff* *ff* *sffz* *sffz* *sffz* *sffz*  
**Vln.** *moltof* *tasto* *pont* *pizz. ord.* *ff* *f* *ff*  
**Vc.** *pont* *moltof* *fff* *ff*

♩ = 120      ♩ = 80

*f*

accel.

*f*

accel. A tempo

*sffz*      *sffz*      *sffz*      *f*      *fff*

*f*      *fff*      *p*      *mf* = *ppp*      *f*      *p*      *f*      *f*

*f*      *molto f*      *ff*

*YO-DE-'A*      *GAM - (M)*      *IM - - (M)*      *ET - 'A - LE - - - M*

*sffz*      *sffz*

*Ped.*      *Ped.*      *Ped.*

*(8)*      *f*      *fff*      *f*      *pizz.*      *arco*      *tasto senza vib.*      *ord.*      *pizz.*

*f*      *pont tr.*      *f*      *p*      *f*      *ord.*      *f*

*J=60*

Fl. *mp* 3" *mf* 5 *f* *p* *f* *mf* 3 *f*

Cl. *mp* 3" *mf* 5 *f*

Bsn. *mf* 3 *f*

*J=120*

*mf* 3" *molto f* *p* *f* *b* *f* *mf* 3 *f* *mf* 6 8 *f* *mf* 3 *f* *mf* 6 8 *f* *mf* 3 *f*

*mf* < > 3" *molto f* *mf* < > *mp*, *legato*

S. 'O - DE - NI YO - DE - 'A ME - VIN ET CHA - VA ET A - DAM VE - NA CHASH - (SH) KEI

Pno. *f* *p* *p* *p*

Vln. *mp* *mf* 5 *f* *pizz.* *ord.* *arco* *flautando* *ord.* *8va* *arco* *tasto* *pont.* *ord.* *8va* *p*

Vc. *mf* 5 *f* *pizz.* *ord.* *arco* *tasto* *pont.* *ord.* *p*

poco accel.      A tempo      accel. rit.

$\text{♩} = 50$        $\text{♩} = 120$        $\text{♩} = 80$

Fl.      Cl.      Bsn.

S.

TSA - D      U-MA - DU - 'A      ME-CHIR HA - DA-'A      T      SHU - LAM - - - (M)

Pno.

Vln.      Vc.

Detailed description: This is a page from a musical score. It features six staves of music for orchestra and piano. The vocal part (Soprano) has lyrics: 'TSA - D', 'U-MA - DU - 'A', 'ME-CHIR HA - DA-'A', 'T', 'SHU - LAM - - - (M)'. The piano part (Pno.) has a dynamic marking '(8)---' at the bottom of its staff. The violin (Vln.) and cello (Vc.) staves include performance instructions like 'flautando', 'pont.', 'arco pont.', 'tasto', '8va', and 'ord.'. The flute (Fl.), clarinet (Cl.), and bassoon (Bsn.) staves show various rhythmic patterns and dynamics like 'mp', 'p', 'fp', 'ff', 'moltof', 'tr.', and 'tr.----'. The soprano (S.) staff shows melodic lines with dynamics 'mf', 'ten.', 'mf', 'moltof', and 'mf'. The overall style is complex with frequent time signature changes and dynamic shifts.

Fl. *f*

Cl. *mf* T.S. T.S. *mf*

Bsn. *mf*

S. *poco f* MIT - VA - DE

Pno. *mf* *f*

Vln. *mf* arco pizz. arco *mf* pizz. arco *mf legato* *f*

Vc. *mf* arco pizz. *mf legato* *f*

Fl. T.R. T.R. T.R.

Cl. T.S. T.S.

Bsn.

S. TSA - 'AR HU TSA - 'AR KE - EV HU KE - E V

Pno.

Vln. pizz. arco pizz. arco mf f moltof ff

Vc. f ff ppp -- ff jetté ord ff

*[1] (gran.+comb: Trigger REC)  
Record only - no output*

*[2] (Trigger Envelope)*

68

Fl.

Cl.

Bsn.

*ff*

T.S.

*ff*

*mf*

*f*

*molto f*

68

68

68

68

68

68

(spoken solemnly and sadly)

KISHINIEV

LUBIYA

JENIN

SDEROT

BE - ZO HIK-TAH

Pno.

*15ma*

*f*

pizz. ord.

arco au talon  
jetté

pizz. arco tasto --> pont.

ord. sul D -----

Vln.

*f*

pizz.strum arco

jetté *sfz*

pizz.strum arco

*ppp* *ff*

*mp* *ff*

*ppp*

pizz.

Vc.

*tr*

15ma

*sfz*

*ppp* *ff*

*mp* *ff*

*ppp*

*ff*

*tr*

flttzg

Fl. 74 f flttzg ord.  $\#$

Cl. 6 8

Bsn. 6 8

S. 6 8 f

E - - - - SH - - - - (SH) U - BE -

3 (Trigger REC and Envelope)

Pno. 6 8 f

Vln. 6 8 pizz.

Vc. 6 8 pizz. f

Fl. *ord.* *moltof* *fff f* *ff f* *ff f* *ff f* *f*

Cl. *(tr)* *moltof* *fff f* *ff f* *ff f* *T.S. T.S.* *mf*

Bsn. *ff ff* *f*

S. *f*

ZO GAM CHO - - - K MISH - PAT CHOK HA-MA - KOM

Pno. *moltof* *f sffz ff f* *ff f* *ff f* *mf*

Vln. *arco* *pont au talon* *tasto 8va pont* *pizz. ord.* *arco* *ff f* *pizz.* *tr*

Vc. *moltof arco pont* *fff f ff f*

Fl. T.R. *mf* *ff* *f*

Cl. *mf* *ff* *f*

Bsn. *mf* *ff* *sffz* *sffz*

S. *fff* *ff*

KAR - KA - 'OT A-MA - NOT EZ-RA-CHUT LA NIM - TSA VE-LANE - 'E - DA - - - - - R LICH - O - RA

[4] (sthatms1: Input ON) [5] (Input OFF)

Pno. *mf* *ff* *sffz* *sffz*

Vln. *pizz.* *mf* *ff* *pont. au talon*  
arco *tr* *mf* *ff* *pont. au talon*

Vc. *mf* *ff*

Fl. *ff*

Cl. *ff*

Bsn.

S. *fff* *moltof*

TSE-DEK ACH TSE-DEK MAV - DI - - - L BEIN ZESHE NO LAD KA - - - N VE ZE SHE

Pno. *sffz* *sffz* *8va* *8va* *f* *15ma* *ff*

Vln. *sffz* *sffz* *f* *pizz.* *arco* *pizz.*

Vc. *sffz* *sffz* *f* *pizz.* *arco* *pizz.*

rit.                  A tempo

104

Fl.              Cl.              Bsn.

ff              moltof              fff f

S.

KAN NO LA D  
[6] (gran.+comb: Trigger Envelope)

(15)              15ma

Pno.

mf              ff              moltof              f Ped.

arco              flautando              pont au talon              tasto pont ord. pizz.  
arco              mf legato              ff              fff f  
arco              flautando              arco pont              ord.  
p              mf legato              ff              moltof              fff f  
ord.              3

Vln.

Vc.

*=60*

112

Fl. Cl. Bsn.

*poco f*      *mf*      *mf*      *mf*      *f*

S. SHNEI-HEM SHO-NIM LE-MA -'A- SEH MA - A- ZIN KRI NACH  
 7 (stchorus1) (gran.+comb: Trigger REC and Envelope) 8 9

Pno. *ppp*      *mf*      *mf*      *mf*      *mf*      *mf*      *mf*

Vln. Vc.

*ff*      *pp* to *mf* ad lib

*mf*      *pp*

*Meno Mosso*  
*=54*

**A Tempo** ( $\text{♩}=60$ )

121

Fl. Cl. Bsn.

*f* *sfz* *sfz* *sfz* *sfz* *moltof*

*mp* *pp* *mp dolce* *f* *mf* *moltof*

ZA CHOT SH MA-A-ZIN LE-KRI - OT AK LOT CHOL SH - - - SHCHOL

[10] [11] [12] [13] [14] [15] [16]

Pno.

*p* *f* *sfz* *sfz* *sfz* *sfz* *mf* *moltof* *p=f*

*8va* *8va* *8va*

*Ped.* *Ped.* *Ped.* *Ped.*

Vln. Vc.

*pont.* *ord.* *pont.* *ord.*

*mp* *sfz* *sfz* *mp* *mp* *moltof*

*pont.* *ord.* *pont.* *ord.*

*mp* *sfz* *sfz* *mp* *mp* *moltof*

130

Fl. *f*

Cl. *f*

Bsn.

*sffz mf*

*sffz mf*

*sffz mf*

*sffz* (shout)

SH CHOL SH CHOL

SH CHOL

Pno. *sffz* *sffz* *sffz*

*f* *ped.* *ppp*

Vln. *f*

Vc. *sffz*

This musical score page contains six staves. The top three staves are for woodwind instruments: Flute (Fl.), Clarinet (Cl.), and Bassoon (Bsn.). The bottom three staves are for strings: Piano (Pno.), Violin (Vln.), and Cello (Vc.). The score begins with a dynamic *f*. The Flute and Clarinet play eighth-note patterns, while the Bassoon provides harmonic support. The piano part features sustained notes and eighth-note chords. The violin and cello provide harmonic support with sustained notes. Measure 130 concludes with a dynamic *sffz*. The score then transitions to measure 132, which starts with a dynamic *f* and includes a vocal instruction "shout". The piano part continues with eighth-note chords. Measure 132 ends with a dynamic *ped.* (pedal) and a dynamic *ppp*. The final measure, starting with a dynamic *f*, includes a dynamic *sffz* for the strings.

137

Fl. *ff*

Cl. *ff*

Bsn. *ff*

(spoken) *poco f*

*3*

MAAZIN ... LEKRIOT, ANACHOT, ZA'AKOT, KOLOT SHCHOL

18 (Trigger Envelope)

Pno. *ff* *f* *pp* *ff*

15<sup>ma</sup>

Vln. pont. *ff* *ppp* < *ff* *pizz. ord.* *f* *sfz* *arco au talon jette* *ord.* *pizz.* *sfz* *arco au talon jette* *ord. sul D* *ord.*

Vc. *ff* *ppp* < *ff* *ppp* < *ff* *f* = *p* = *ff* *ppp* < *ff* *ppp* = *ff* *f* = *p* = *ff* *mp* < *ff* = *pp*

← ♫ = ♫ → (♩=66)

**146 T.R.**

Fl. *moltof*

Cl. *moltof*

Bsn. *moltof*

riten. A tempo Più mosso ♩=90

Meno Mosso ♩=54

S. *mf*

PA'-AM SHA-MA-TI RAK YI-DISH 'I - VRIT HA - YOM PRI HA-DA-'AT PA-KACH OZ -

*ff*

*mf pesante*

(15) Pno. *pp*

Pno. *pp*

Vln. *pizz.*

Vc. *moltof*

*ff*

*ff*

*ff*

**A tempo (♩=66)**

**Fl.** 155 **Cl.** **Bsn.** **S.** **Pno.** **Vln.** **Vc.**

**T.R.** **T.S.**

**NAY** **A** **DMA-MA 'A - RA - VI - T** **BE - NI** - - IV **BE-NIV** **PA-LES - TI** - IN I - - IN

19 (stchorus1) 20

**8va** **8vb** **Ped.** **ord.** **pizz.** **pizz.** **arco**

Fl. *p*      Cl. *p*      Bsn.

*accel.*      =126      *tr.*      *sffz sffz sffz*

S.      <> <> => *pp*      (shout) *ff*

Pno.      DMA - MA      [21] (None)      DMA - MA      [22] (stchorus1)

Vln.      Vc.

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176

Fl.

Cl.

Bsn.

S.

'O - LA MI-MACH-TE RET KFA - RIM GA-'A - RA BIL - TI NIR - ET TAT-KAR KA - 'IT MIT 'AR - BE-LET 'IM SE-VEL'I - VRI MIT-'AR - BE-LET 'IM SE-VEL 'I - VRI MIT 'AR - BE-LET 'IM SE VEL

[23] (stharms1: Input ON)

Pno.

Vln.

Vc.

187

Fl. *p*

Cl. *p*

Bsn.

S. *mf* *f*  
VE-I - TA A A A - M YE-LA-LOT RE FA - I I - - - M NE -E -DA-RIM NO-CHA - CHIM

[24] (Input OFF)

Pno. (8)-----

Vln. arco *ff* *p*

Vc. *ff* *p*

205

Fl. *ff*

Cl. *ff*

Bsn. *ff* → *f*

S. *poco f*

TSVACHOT HA-YA-GON HA'-O- LOT ME-PI - YOT SAG-SO-GOT BAR-ZEL BE-TON BA-SAR TSVACHOT HA-YA-GON HA'-O- LOT ME-PI - YOT SAG-SO-GOT BAR - ZEL

[25] (Input ON) [26] (Input OFF)

Pno. *ff*

Vln. *ff*

Vc. *ff* → *f* pizz.

*8<sup>b</sup>*  
*2ed.*

arco

*tr* ↗ *tr* ↗ *tr* ↗ *6*

*sfz*

Fl. 215 *tr.*

Cl.

Bsn.

S. *fff* *sfffz*

BE - TON BA - SARRR - - RA [27] (gran.+comb: Trigger REC and Envelope) CHA - LE - *f*

Pno. *ff* (8) *f* *8vb* *ped.*

Vln. 5 *ff* *pp* *f*

Vc. 5 *ff*

220

Fl.

Cl.

Bsn.

S.

LEY \_\_\_\_\_ TO - FET CHA - GU - RA TO - FET - - - ME - CHO -

Pno.

(8)....]

Vln.

Vc.

This musical score page contains six staves of music. The top three staves (Flute, Clarinet, Bassoon) play eighth-note patterns in 6/8 time. The Soprano staff includes lyrics: 'LEY \_\_\_\_\_ TO - FET CHA - GU - RA' on the first measure and 'TO - FET - - - ME - CHO -' on the second. The Piano staff shows two measures of rests followed by two measures of eighth-note chords. The bottom three staves (Violin, Cello) play eighth-note patterns in 6/8 time. Dynamic markings 'f' (fortissimo) are placed under the bassoon's eighth-note pattern in the first measure and under the violin's eighth-note pattern in the second measure. A trill symbol is placed above the bassoon's eighth-note pattern in the second measure. Measure numbers 220 are at the top left.

Fl. *b tr*

Cl. *f tr*

Bsn. *f*

S. *ffff*

NIT TO - FET MA - SOK U - MA - TO - SS

Pno. *f*

Vln. *v tr ff*

Vc. *sul A tr*

Fl.

Cl.

Bsn.

S. (shout) ***fff*** (until electronics are faint) ca. 8"

ANK [29] (Trigger Envelope)

Pno. 15<sup>ma</sup> TO- FET! [30]

Vln. tasto → pont. pizz. ord. arco au talon jetté 8<sup>va</sup> pizz. arco tasto → pont. ord. ff

Vc. ppp → ff f pizz. strum arco sfz jetté 3 pizz. strum arco mp → ff = ppp ff

*=60*

236 colla parte

Fl.

Cl.

Bsn.

wailing voice, Middle Eastern intonation and style  
molto rubato

S.

tenuto, pesante -----|

*p < mf*    < ==    == *poco f p*    < *poco f* == *pp*    2" *mf*    == *mp* == *ppp* 2" *p < mf*    == == == == == == *p* 2"

KO ->L    'OD BA - LE - VA - e-A - - - V    PE - NI - MA    NE - FESH YE - HU - DI - - - YI    YI

Pno.

Vln.

Vc.

riten.

A tempo (♩=60)

accel. rit.

♩=50

239

Fl.

Cl.

Bsn.

Soprano (S.)

Pno.

Vln.

Vc.

tenuto, pesante -----+ piu leggiero, Eastern European (Ashkenazi) Jewish intonation and style

HO - MI --> YA HA - TIZ - KOR NE - FESH MO - RE - SHET

[31] (gran: Trigger REC and Envelope)

*ped.*

*8va* -----

*mp* *mp* *f*

*mp* *f*

*mp* *f*

245

A tempo (♩=60)      poco accel.      A tempo      accel.      riten.      A tempo      riten.      A tempo

Fl.      colla parte      *mf*      *p* < *mf*      > *p*

Cl.      *mf*      *p* < *mf*      > *p*

Bsn.      -      *mf*

S.      *mf*      < = *f*      < > *mf*      MA SHE SA - NU      'A - LE - CHA' AL TA - A - SE

Pno.      VE - A - HAV - TA LE - RE - 'A - CHA      KA - MO - CHA      molto *f*      tenuto -----

(8)

Vln.      pizz.      arco      *pp*      *p*      arco      *p*      pizz.

Vc.      pizz.      arco      *p*

[32] (Trigger Envelope)

249

Fl. 5 *mf* — *moltof*

Cl. 5 [M] *mf*

Bsn. 5 1) *mf*

S. *moltof*  
HA-TISH-M'A IS RA-E - - - EL?  
HA-YI-GAL KA-MA- YIM\_ MISH-PAT U-TSDA-KA KE-NA CHAL EI - TAN?

Pno. (8) *moltof* 5 *f*

Vln. 5 *mf* — *moltof* 5 *f* pizz. arco *tr.*

Vc. 5 *mf* — *moltof* 5 *f*

accel.

Fl. Cl. Bsn. S. Pno. Vln. Vc.

254 *tr* *tr*

*f* T.S. *f* *f* *ff* *ff* *fff*

*sffz sffz sffz sffz sffz sffz*

*ff* HA - YA - HA - FOCH - CH CHOK LE - TSE - DE - - EK

*8va* *8va*

*f* *pont. au talon* *ord.* *pont. au talon* *ord.* *pont. au talon* *ord.*

*f* *pont. au talon* *pizz. ord* *arco pont. au talon* *ord.* *tr* *b* *tr* *b*

*pizz. ord* *arco pont. au talon* *ord.* *tr* *b* *tr* *b*

Fl.

Cl.

Bsn.

S.

Pno.

Vln.

Vc.

*semperf<sup>fff</sup>*

VE-'ACH SHAV ME-SHE-TA- 'AM - TA - TA -

pp ff f ff sffz sffz sffz sffz

8va pizz. arco 8va

Fl. *f* *fff* *f* *p* *f* *mf* *f* *moltof*

Cl. *f* *fff* *f* *p* *f* *mf* *f* *moltof*

Bsn. *sffz* *f* *mf* *f* *moltof*

S. *moltof* *ff*

'A - - - AMT GAM - (M) IM - (M) NIT -'A - LE - M 'UV - DAH

Pno. *fff* *f* *mf* *f* *ff*

Vln. *f* *fff* *f* *arco* *tasto senza vib.* *ord.* *mf* *f* *moltof*

Vc. *f* *f* *pont* *tr* *pizz.* *arco* *mf* *f* *moltof*

Fl. 287 (tr) *mf*

Cl. *mf*

Bsn. *mf*

S. 'O-DE NU YOD - 'I - - - - 'IM ETS HA - DA - 'AT 'A - TIK YO - MIN EI-NO MA - KI - -

Pno. *mf*

(8)-

Vln. flautando *f* ord. *mf*

Vc. pont. ord. *mf*

Fl. *moltof*

Cl. *moltof*

Bsn. *moltof*

S. 6.25" *f* *=mf* *legato*

Pno. *moltof* *fff* *p*

Vln. *moltof* *mf* *fff* *tasto* *p*

Vc. *moltof*

*R* *EI - NO MA - KI* *R* *BE-I* *YE-DI* *'A* *EI-NO MO - TI - R* *SHGA - GA*

[33] (gran.+comb+stharms: Trigger REC and Envelope)

*15ma*

*2ed.* *arco pont* *tasto* *pont* *8va*

*2ed.* *pont au talon* *tasto*

accel. rit.       $\text{♩} = 50$

312

Fl.      *p*

Cl.      *p*

Bsn.      *p*

S.      *mp*      *ppp*

ETS HA - DA 'AT EI - NO ME SU - GAL      LIM - CHOL

Pno.      *mp*      *p*      until piano fades out

(8)-----

Vln.      *p*      *pp*      *ppp*      *ppp*      *p*      *p*

Vc.      *p*      *pp*      *ppp*      *ppp*      *p*      *p*

Keele, 5 September 2008