Translucency II

for

Fixed media and Live image processing

2013-14

Haruka Hirayama

Programme note

The live audio-visual work *Translucency II* was composed to explore the sound and abstract visual meanings or implications of ‘translucent’, following the work *Translucency I* for bass clarinet and live electronics. The original instrumental sounds which are fundamental components of this work are by a collaboration with a specialist of the bass clarinet, Marij van Gorkom. In this piece, the recordings of raw bass clarinet sounds were subdivided, transformed by computer, and stored on hard disk. ‘Playing’ this work means that a performer types letters on a computer keyboard to recall the pre-stored sound information. Moreover, the information of typed keys along with audio signal created is visualized instantly. This real-time processed image must be projected to the screen on the stage. Hereby, the interactive relationship between sound output, image processing and the action of a performer is constructed and presented to audience. A performer is required some improvisational behaviour, especially regarding tempi and a choice of typing letters. However, most of the elements are predetermined by the composer and notated in the score, which a performer has to follow.

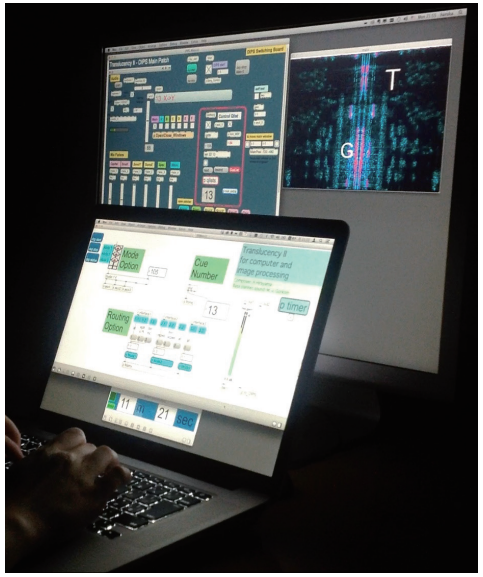
ライブ音映像作品の*Translucency II* は、*Translucency I* に引き続き「translucent= (光のみを通す) 半透明」な音の世界、さらには抽象的なイメージの世界を探求している。基となったバスクラリネットの音は、オランダのバスクラ奏者Marij van Gorkomの協力によるものである。この曲では、録音された生の楽器の音は、作曲家によって細分化や変質され、それによって生成された多くの音のマテリアルは、コンピュータのディスクにあらかじめ保存されている。それ故に、この曲を「演奏する」という事は演奏家がコンピュータのキーボード打つことで、それらの音情報を順次呼び出すことを意味する。さらには、タイピングしたキー情報、およびそれによって発せられた音情報は即座に映像化され、そこでは音と映像とパフォーマンスにおけるインタラクティブな関係を構築し、オーディエンスに提示される。演奏家は特にテンポやタイピングのキーにおいてわずかなインプロを含むものの、多くの要素はあらかじめ作曲家によって決められており、演奏者は楽譜を追って演奏することが求められている。

2014

[Required environment]

- Two Macintosh Computers
  - 1 computer (main) for audio and triggering: Max/MSP 6.1 is required.
  - 1 computer for image processing: Max/MSP 6.1, DIPS, and JOGL 1.1.2 are required.

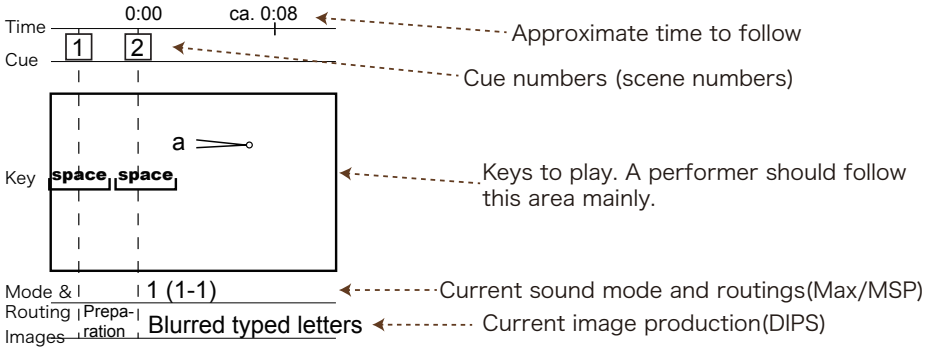
  Note: if both processings are possible to run on a solo computer, the second computer is not required. Otherwise, two computers must be connected via Ethernet or WIFI for OSC communication.
  DIPS is available from http://dips.kcm-sd.ac.jp
- Audio Interface (Sound card) (48kHz/24bit)
- Max/MSP and DIPS files for Translucency II
- Mixer
- Projector (720 × 480) and Screen
- Speaker system *2 (and above)



(An image of performance)

[Instructions]

Computer



a g k	Tap in suggested keys (small letters.)
Ⓔ	Tap in suggested keys (capital letters.)
c	A crucial key, normally it is placed bofore changing a scene.
	Wait until current sound disappears completely.
//	A brief, silent pause.
type = ♩ ca.55	Press keys at the tempo M.M. 55 approximately.
space	Press a space key to move a cue number forward.

[Electronics]

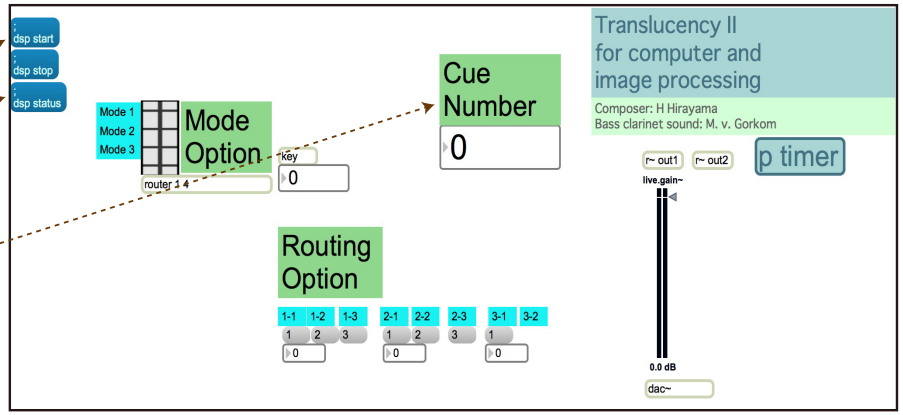
Max/MSP patch: TLII_MaxMSP_ver13

When the Max/MSP patch is opened, a main window (A) appears.
The timer window (B) should be displayed as well by double clicking 'p timer' object in the main patch.

Click 'DSP status' button to set up audio input and output, and check the sampling rate. Then, click 'DSP start' button to test the audio signal flow.

Tap Space-key to progress cues. When the cue comes to number 2, the timer starts automatically. Return-key is for resetting and initializing parameters including the timer.

(A): Main window

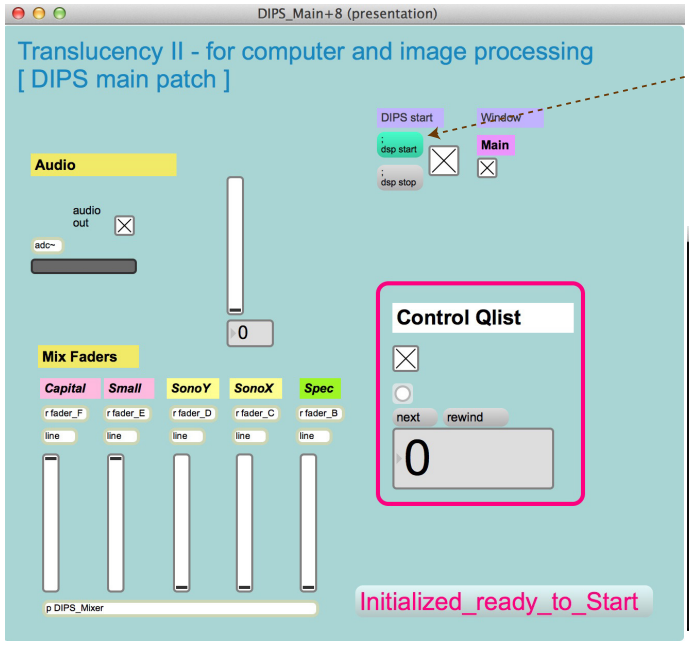


udpsend 127.0.0.1 7400
udpreceive 7400

To send (control) data from one computer (main) to the other (image processing), set the IP address of the receiver (port 7400 is assigned as default) in 'udpsend' object in Max/MSP patch.

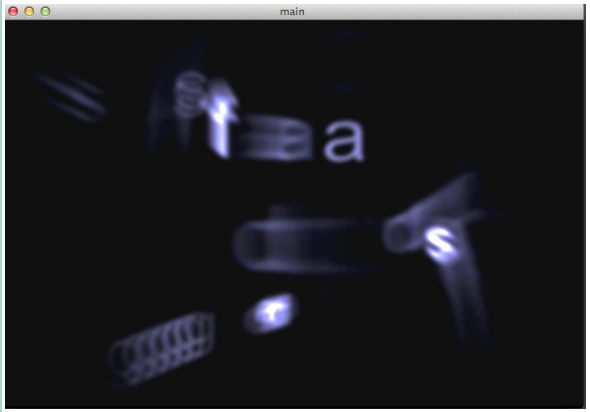
(B): Timer window

DIPS patch: _DIPS_Main +8



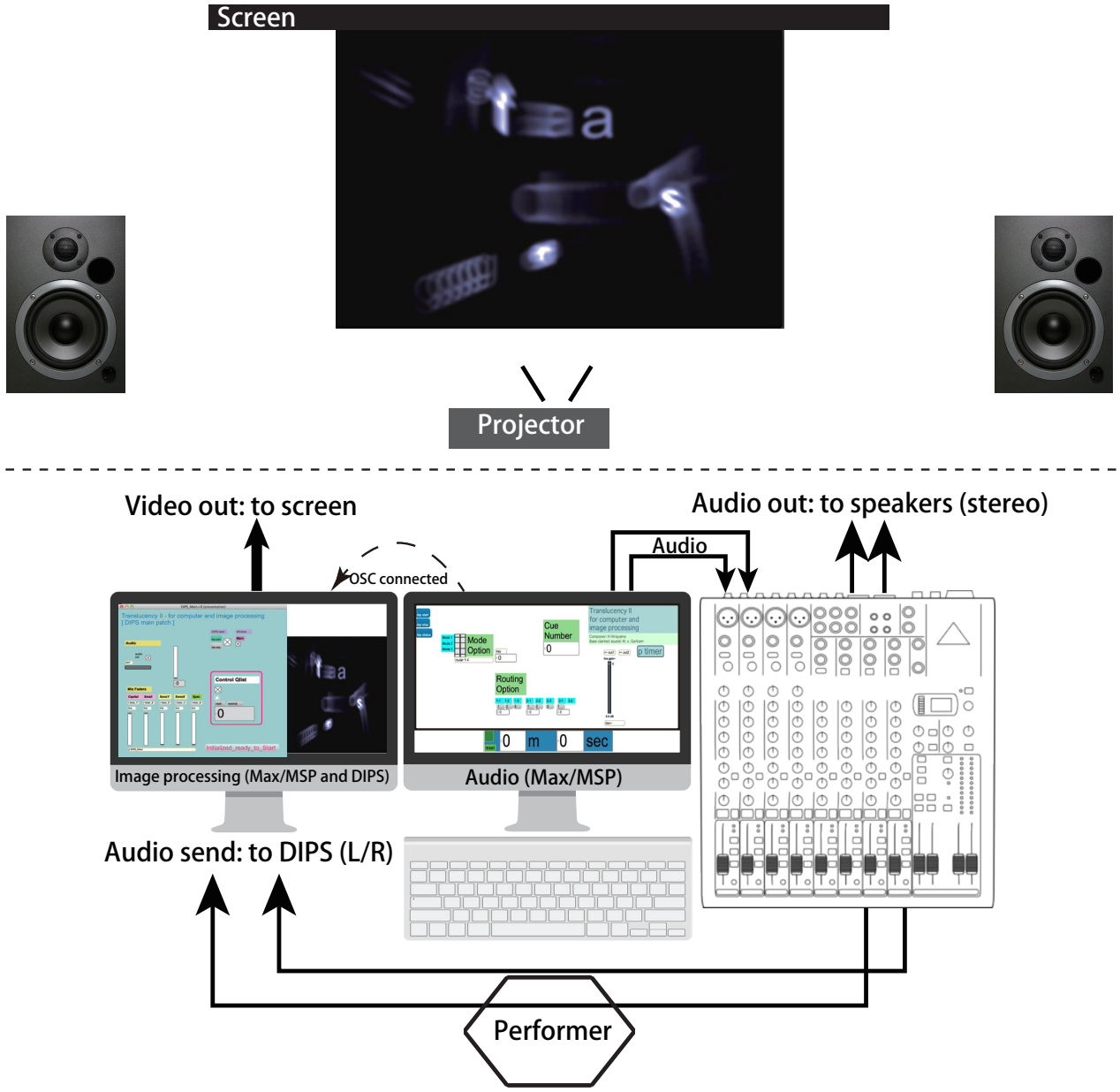
When the DIPS patch is opened, it appears along with a 'main' window, which is projected to the screen on stage. Click the 'DSP start' button, then it is ready to start.

As long as udpsend/udpreceive objects are set up correctly, the DIPS patch can be controlled from the main computer simultaneously. The 'main' window (720 x 480 pixels) shows the result of image processing, and is sent to the projector.



Duration: ca. 16 minutes

[Diagram for setup]



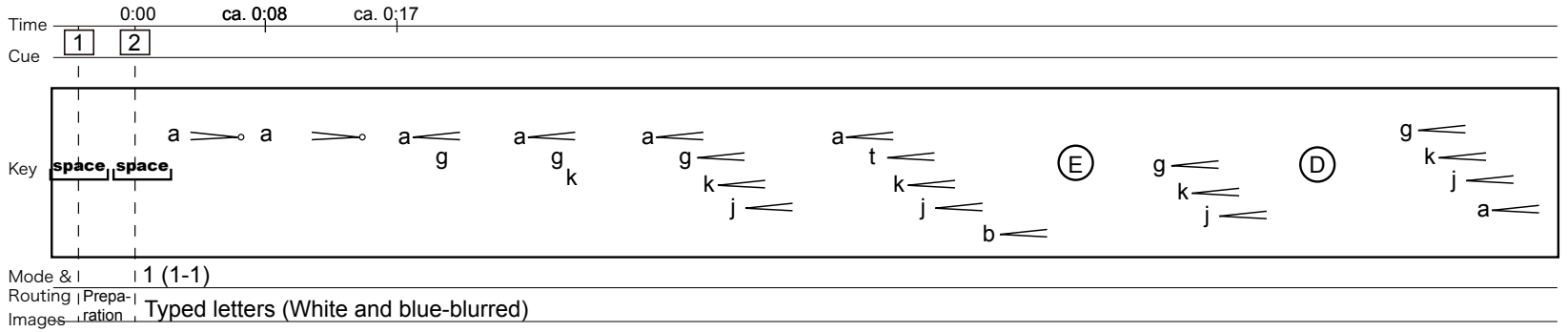
Translucency II

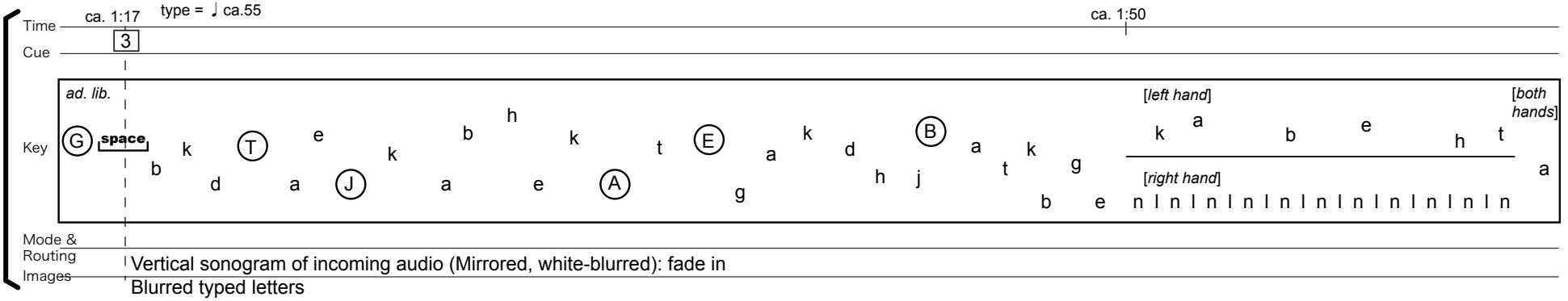
for Fixed media and Live image processing

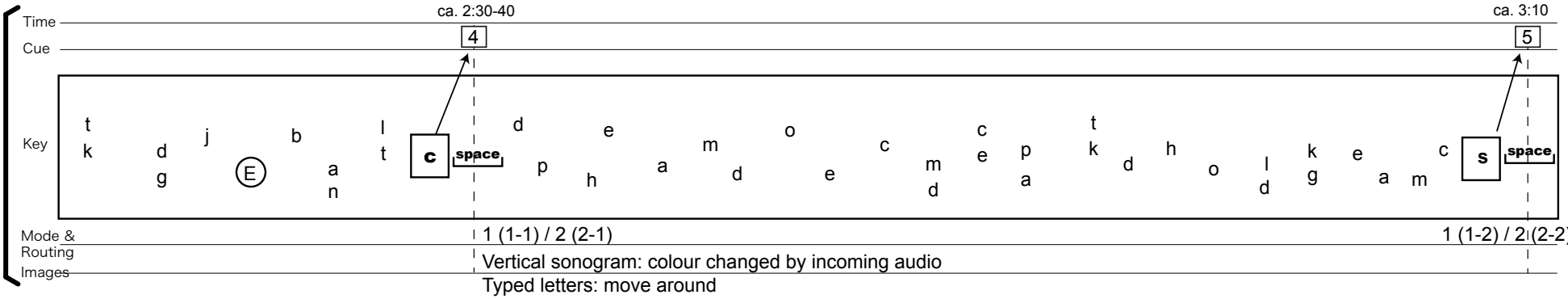
Haruka Hirayama (2013-14)

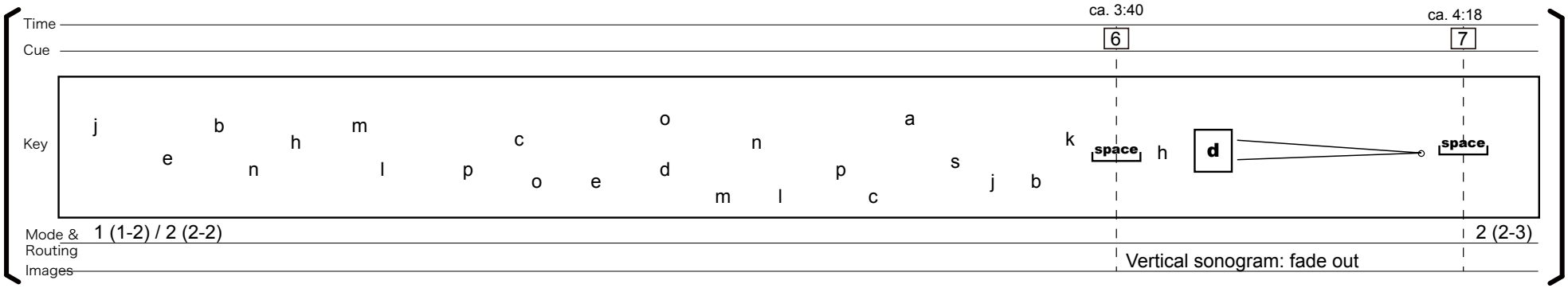
① Turn DSP on

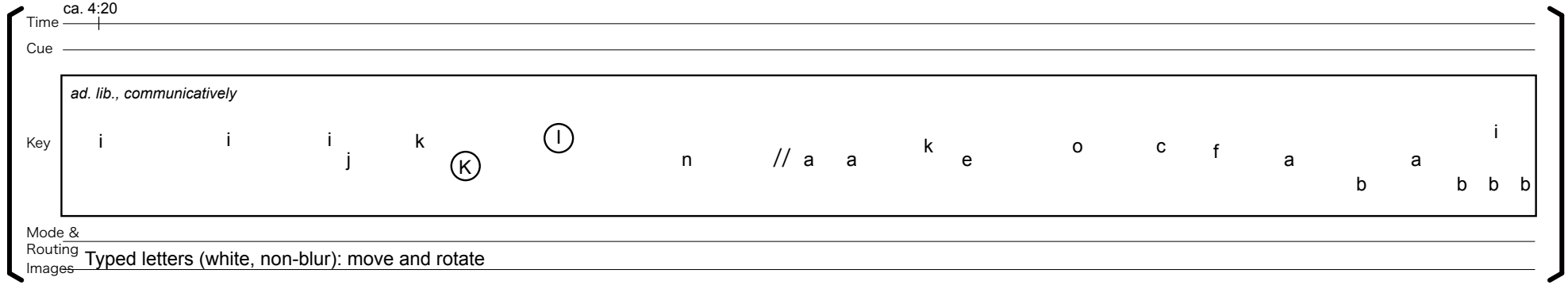
② Press the
Space key
to move cue numbers
forward, and
start to play music
just after
the cue no. 2.

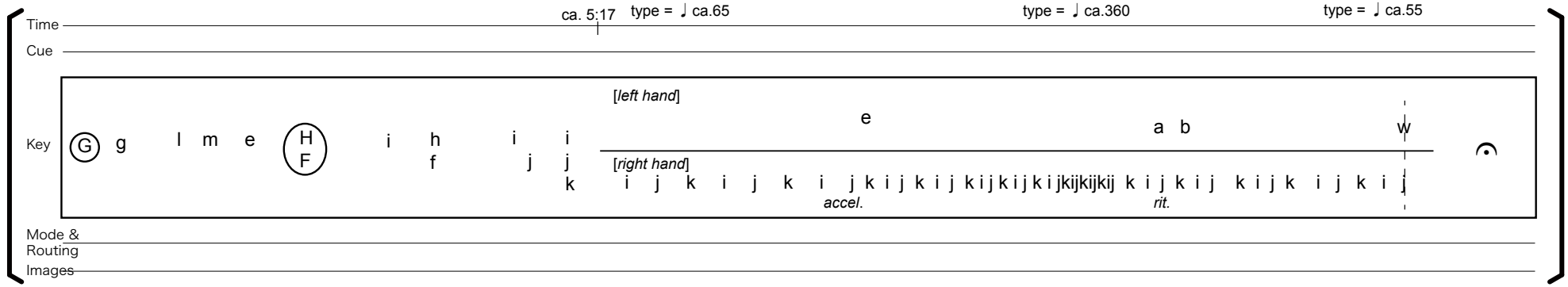


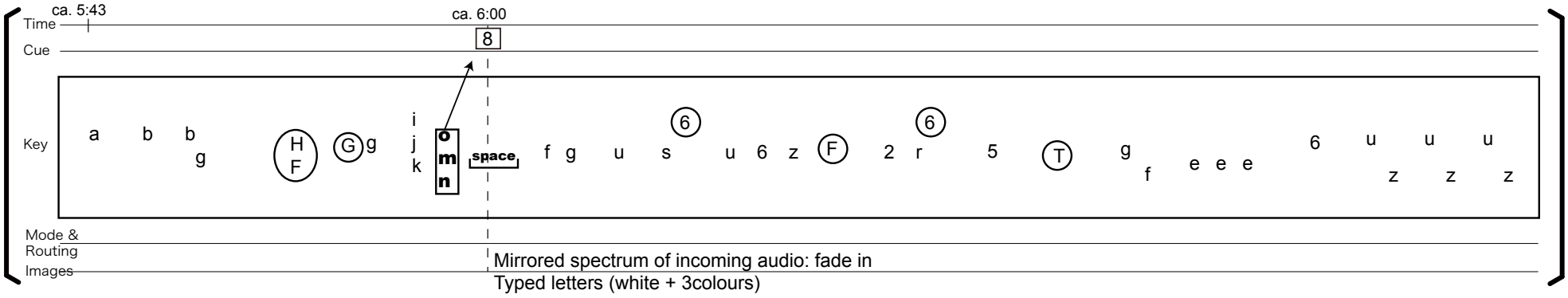


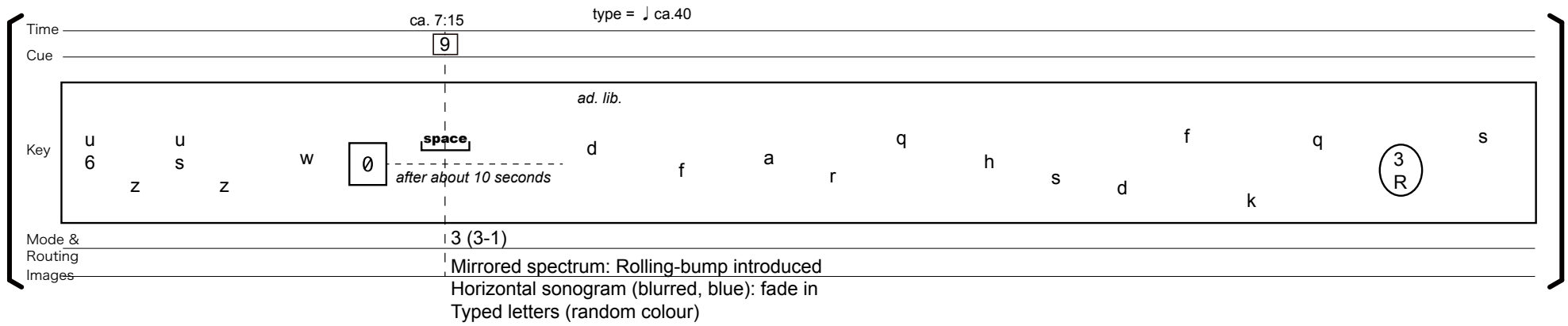


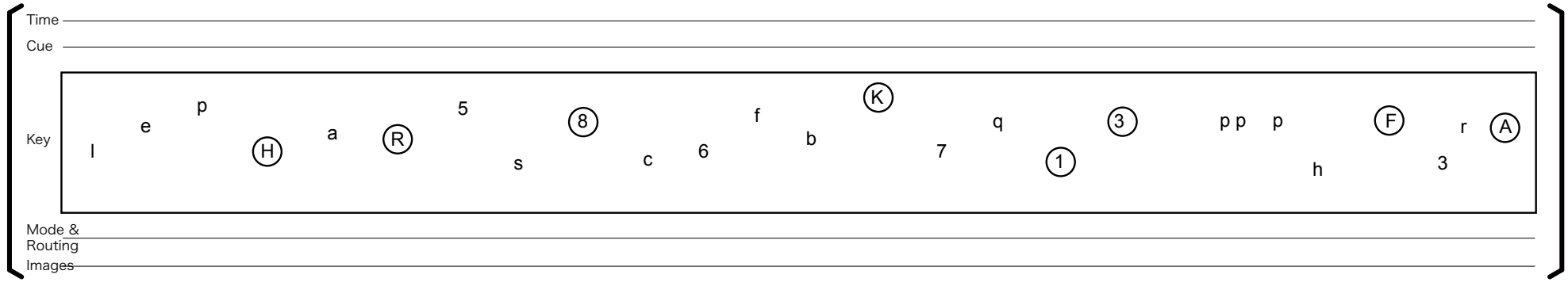

Time
Cue
Key
Mode & Routing
Images
ca. 3:40
6
ca. 4:18
7
j b h m c o n a k space h d space
e n l p o e d p s j b
m l c
1 (1-2) / 2 (2-2)
2 (2-3)
Vertical sonogram: fade out

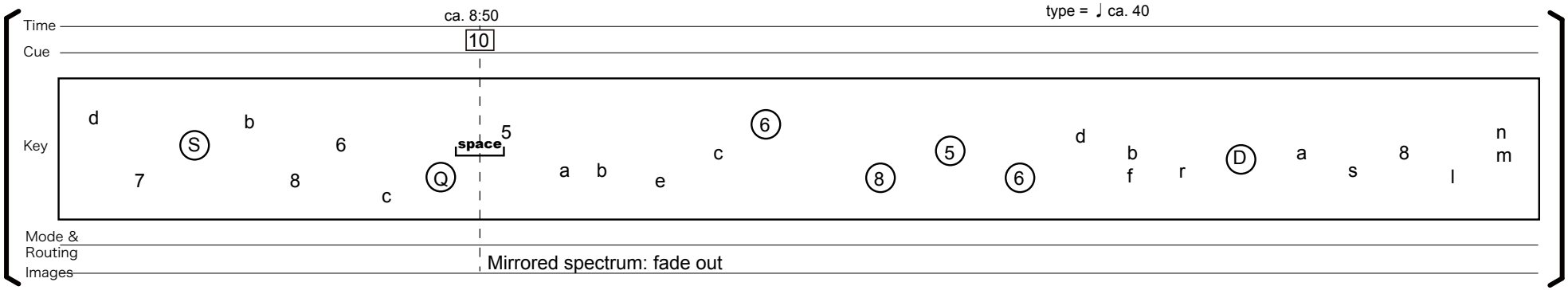

Time
Cue
Key
Mode & Routing
Images
ca. 4:20
ad. lib., communicatively
i i i k l
j K
n // a a k e o c f a a i
b b b b
Typed letters (white, non-blur): move and rotate

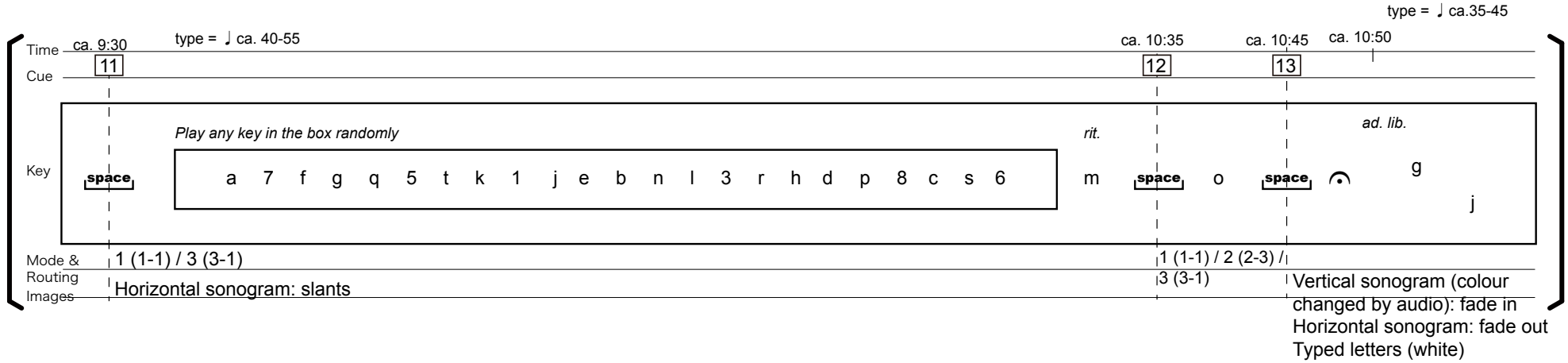

Time
Cue
Key
Mode & Routing
Images
ca. 5:17
type = ♩ ca.65
type = ♩ ca.360
type = ♩ ca.55
G g l m e H F i h f i j i j k
[left hand]
e a b w
[right hand]
i j k i j
accel.
rit.

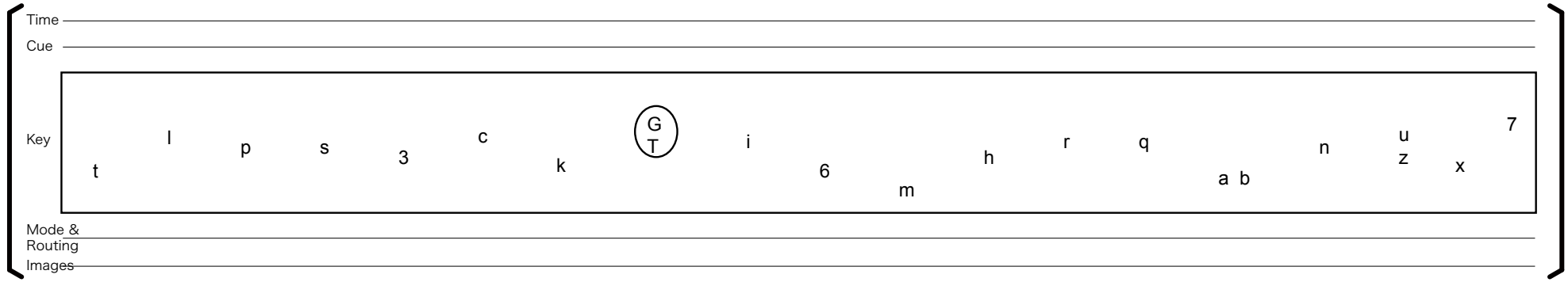

ca. 5:43
ca. 6:00
Time
Cue
8
Key
Mode &
Routing
Images
Mirrored spectrum of incoming audio: fade in
Typed letters (white + 3colours)

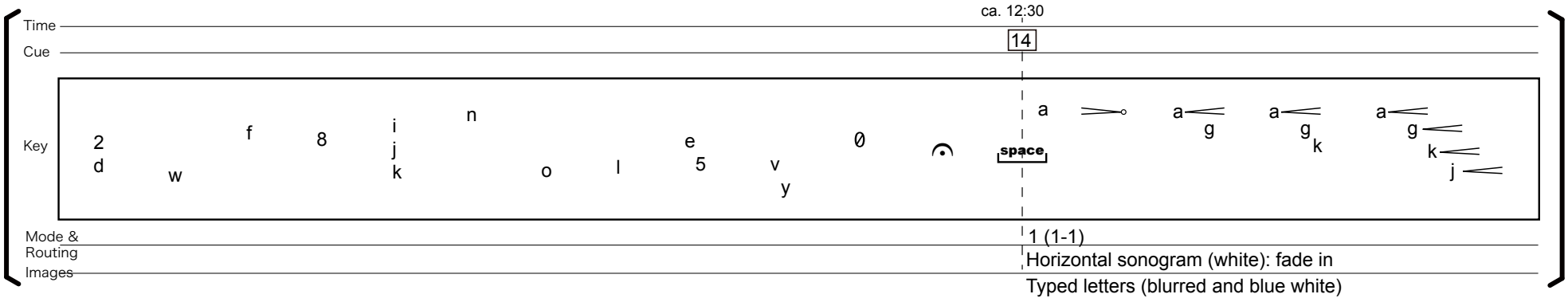

ca. 7:15
type = ♩ ca.40
Time
Cue
9
ad. lib.
Key
after about 10 seconds
Mode &
Routing
Images
3 (3-1)
Mirrored spectrum: Rolling-bump introduced
Horizontal sonogram (blurred, blue): fade in
Typed letters (random colour)

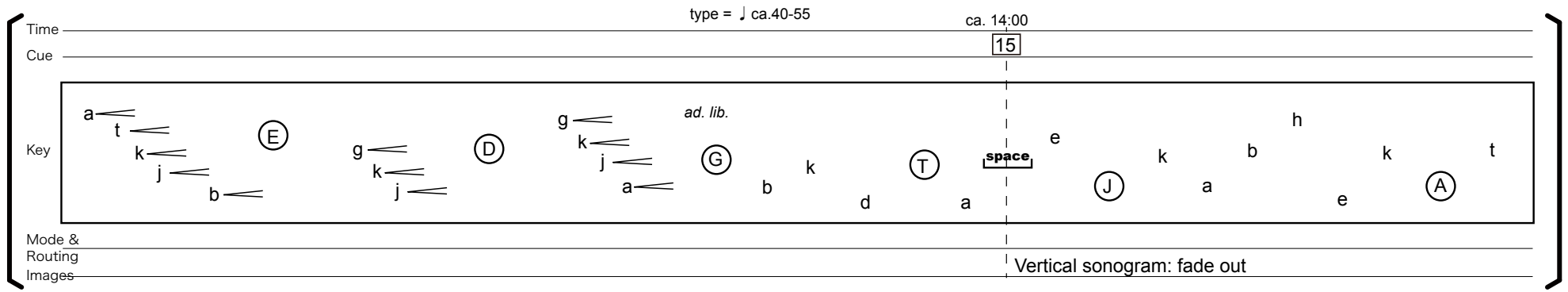

Time
Cue
Key
Mode &
Routing
Images

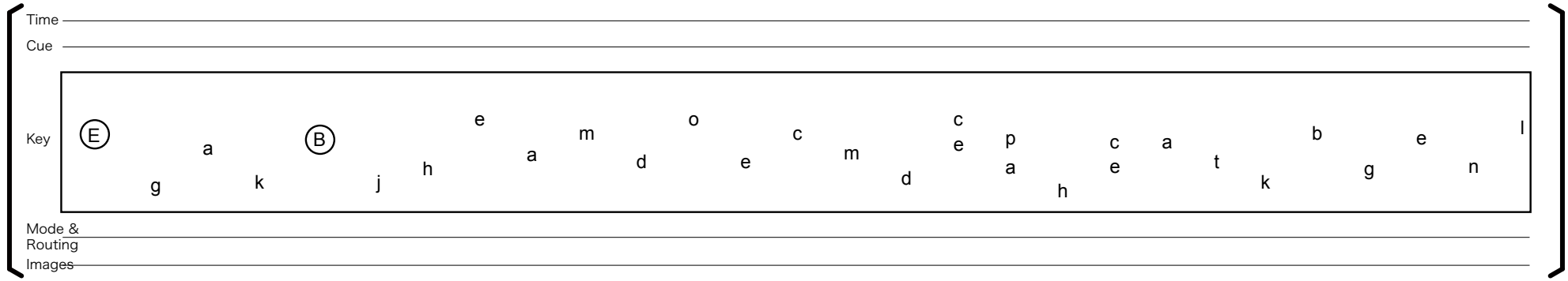

Time
Cue
ca. 8:50
10
type = ♩ ca. 40
Key
d
S
b
6
7
8
c
Q
space
5
a
b
e
c
6
8
5
6
d
b
f
r
D
a
s
8
l
n
m
Mode &
Routing
Images
Mirrored spectrum: fade out

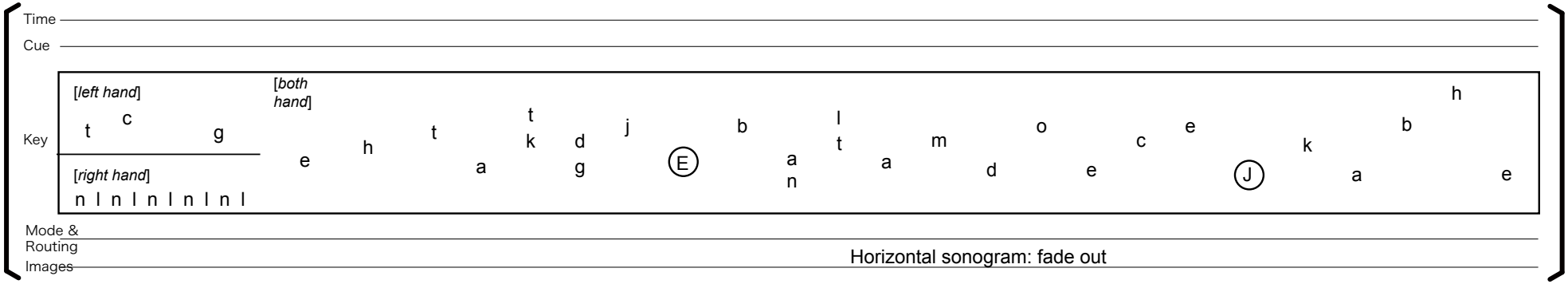

type = ♩ ca.35-45
Time
Cue
ca. 9:30
11
type = ♩ ca. 40-55
ca. 10:35
12
ca. 10:45
13
ca. 10:50
Key
space
Play any key in the box randomly
a 7 f g q 5 t k 1 j e b n l 3 r h d p 8 c s 6
rit.
m
space
o
space
ad. lib.
g
j
Mode &
Routing
Images
1 (1-1) / 3 (3-1)
Horizontal sonogram: slants
1 (1-1) / 2 (2-3) /
3 (3-1)
Vertical sonogram (colour
changed by audio): fade in
Horizontal sonogram: fade out
Typed letters (white)

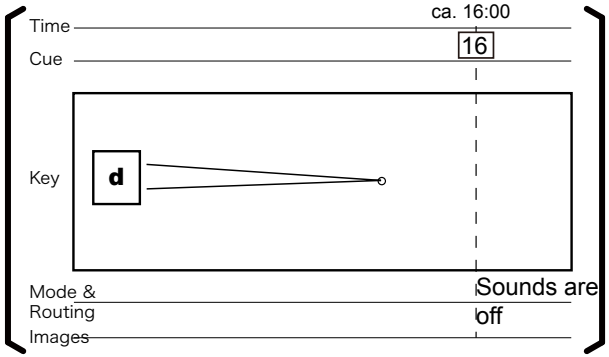

Time
Cue
Key
t
l
p
s
3
c
k
G
T
i
6
m
h
r
q
a b
n
u
z
x
7
Mode &
Routing
Images


ca. 12:30
Time
Cue
14
Key
space
Mode &
Routing
Images
1 (1-1)
Horizontal sonogram (white): fade in
Typed letters (blurred and blue white)


type = ♩ ca.40-55
ca. 14:00
Time
Cue
15
Key
ad. lib.
space
Mode &
Routing
Images
Vertical sonogram: fade out


Time
Cue
Key
Mode &
Routing
Images


Time
Cue
Key
[left hand]
t c g
[right hand]
n l n l n l n l
[both hand]
e h t a t k d g j E b a n l t a m d o e c e J k a b h e
Mode & Routing Images
Horizontal sonogram: fade out


ca. 16:00
Time
Cue
16
Key
d
Mode & Routing Images
Sounds are off