

S'enfeuiller

for alto saxophone, thunder-sheet and live electronics
with live art, theatrical action and lighting

Sónia Paço-Rocchia
composed in 2006 translated in English in 2009

À mon ami cher
Sébastien Schiesser

Thank you Sébastien for all you involvement
in the process of composition of this piece

"S'enfeuiller" is a rarely-used French word which literally means growing foliage by trees or shrubs. Metaphorically it means acquiring experience, getting older and sometimes the passing of time. "Feuille" means both leaf and sheet.

The piece was inspired by all the above meanings ; also by the forgetting of the links between humans and the natural world.

Technically

- One but preferably two computers.
- S'enfeuiller's patch
- webcam or camera
- 2 simple interfaces with switches, preferably small and discrete. It could be a computer keyboard, pedals or something small and dark that can be attached to the thunder-sheet. The patch can be mostly controlled by the thunder-sheet player, but, for more flexibility during rehearsal and practicability, the saxophone player may want to have some of the controls as well, particularly for the "tap tap tap canon patch".

Audio

You will need:

- audio interface 2 inputs and 4 outputs. (2 speakers for the audience, 2 monitors for the musicians; an alternative is to use just 2 outputs of the sound interface and do a mix with a mixer)
- One wireless microphone for saxophone and one contact microphone for the thunder-sheet
- A pair of speakers for the audience and a pair of monitors for the musicians

The saxophone and the thunder-sheet are both slightly amplified. The saxophone's mechanical noises will be very apparent: do not hide them.

The effects for the thunder-sheet use the input of the contact microphone. The effects for the saxophone sometimes use the sound from the wireless microphone, but sometimes resonance of the sound of the saxophone in the thunder-sheet. This gives a natural reverberation and a strange filtering of the sound; none of the mechanical sounds of the saxophone are recorded by it. Some of the effects use a mix of both the sounds.

Lights

- DMX stroboscope
- DMX black light (ultraviolet light)

The lights are controlled by the *S'enfeuiller* patch; hence they need to be controllable by DMX. The stroboscope is operated by pitch detection. At certain points in the piece, when the saxophone plays a bottom written Bb, the stroboscope flashes. The black light is switched on at the first stroboscope flash. If a DMX-controlled black light is not available, it is possible to use a switch controllable either by the thunder-sheet player or by a lighting technician.

Patches

RECORD/STOP-PLAY/STOP

Record the sound of the saxophone with the contact mic and play it back when the "play" is pressed.

LED PATCH

An blue led pointer should be attached to the end of the bell of the saxophone. The switch should be easily accessible by the right hand of the saxophonist.

The effect repeats irregularly the motif played by the saxophone

When the LED is switched on at one point by the saxophone player; a blue spot then appears near the centre of the sheet. The saxophonist controls the position of the spot on the sheet by moving the saxophone.

The webcam points at the thunder-sheet surface. The webcam software detects the position of the spot and alters the electronic effect in response. Depending on where the spot is on the sheet, the effect changes. The 'irregularity' alters, also the pitch-shifting, the panning and the dynamics.

Panning: The more the spot is to the left, the more the sound from the speakers is panned to left, and vice versa.

Pitch-shifting: The higher the spot is on the sheet, the more the effect is pitch-shifted upwards, and vice versa. When the spot is high, the pitch-shifting is higher than the original sound of the motif, and vice versa.

The pitch-shift is different every time it is repeated.

Dynamic: The closer the spot is to the edge of the thunder-sheet, the louder the effect.

ACCUMULATION PATCH

The sounds that are input to this patch are successively accumulated in a set of 12 loops of different, irregular lengths.

TAP TAP TAP CANON patch

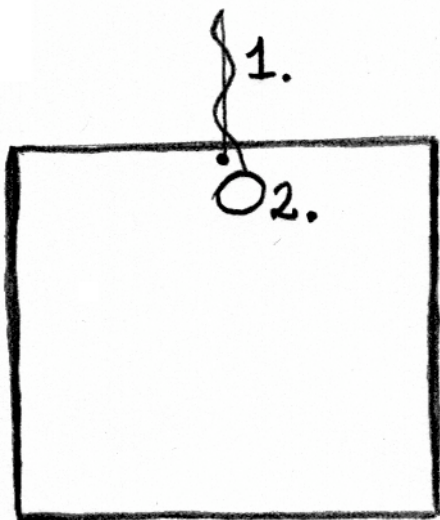
The last page of the piece is a canon. Just before it, the saxophone player gives 3 beat for nothing on a switch. (tap tap tap) This will give the tempo of the canon. The patch plays back three times the recorded sound, at different indicated points, as seen in the score.

The Thunder-sheet

This should be a very thin large sheet of metal. At least 1m by 1m but perhaps up to 3m by 3m. It does not have to be square. It should be hung from the ceiling by a single cable attached to the top centre of the thunder-sheet. An audio cable for the contact mike should be run along this cable.

Playing: The sheet is played sometimes by shaking it and sometimes with a bow.

Each sheet has different timbre characteristics. Explore them with the bow: slow-fast bowing, light-heavy pressure, various angles of the bow, various positions on the edge of the sheet.

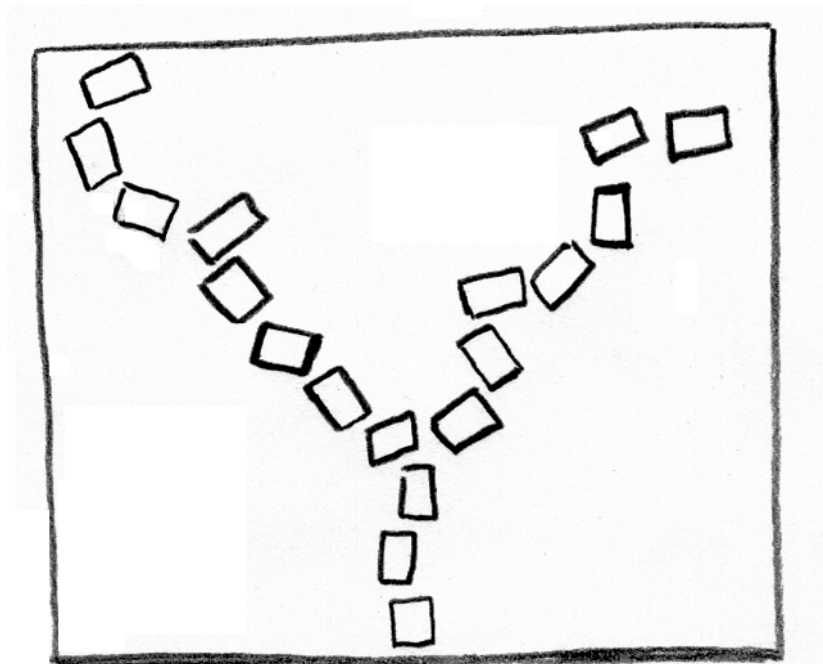


- 1, hang from the middle to the ceiling
2. contact microphone

Live art, the "Tree"

In the course of the piece, the tree grows on the back of the thunder-sheet, unseen by the audience. At various points, the player rotates the thunder-sheet so that the tree becomes visible to the audience. The tree is constructed using several (12-20) very white sheets of paper with double-sided sticky tape, or Post-it notelets. They must become very bright under black light. At various stages in the piece, the thunder-sheet player will 'grow' the tree by sticking more of the sheets onto the rear of the thunder-sheet, whilst hidden by it from the audience. At other points, the player rotates the thunder-sheet so that the tree becomes visible to the audience. The size of the sheets will depend on the size of the thunder-sheet, as the size of the tree should be in proportion to it.

The final tree should look like this:



One trunk, two branches; they are not totally straight.

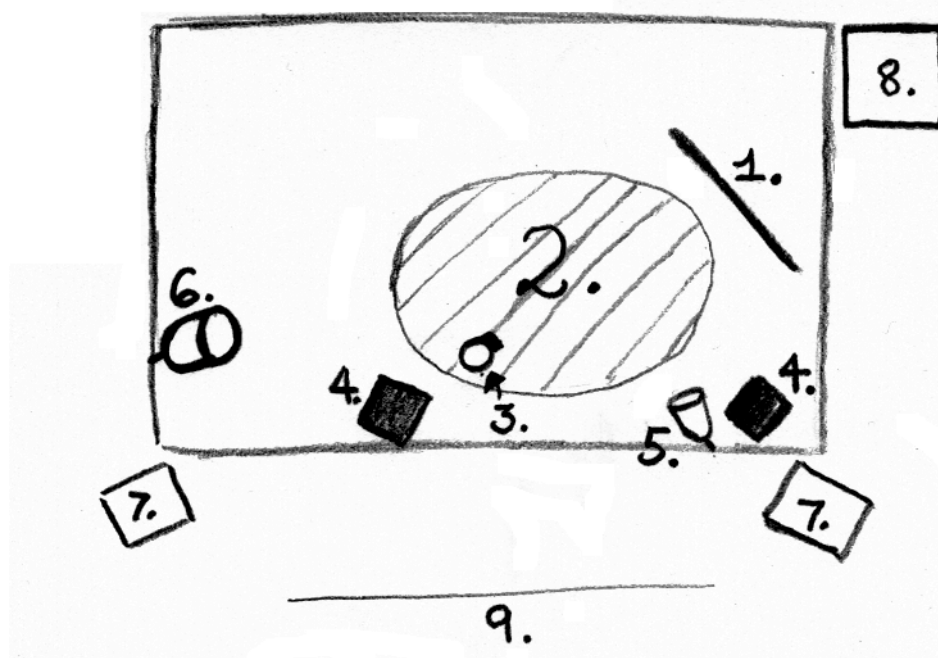
In the part, the different stages are labelled: "add 2 sheets", "default position" "rotate 60° and back". "Add 2 sheets" means you have to add this number of sheets, but they are not shown until the next rotation. The tree should grow from the bottom to the top. The thunder-sheet should be rotated clockwise slowly and smoothly come back, if indicated, anti clockwise in the original position. The ° are approximative.

Costume

The saxophone player should wear all black, or some other uniform colour which will not react to the black light.

The thunder-sheet player should wear black, possibly with a white hat or white mask. The hue of the white must glow bright under the black light. Ideally the bow used will be tinted white or covered with a white material (fabric/paper/tape). We should be able to see the thunder-sheet player only when s/he playing. The rest of the time s/he should be hidden behind the thunder-sheet.

Stage



1. thunder-sheet suspended at its centre from the ceiling, in its default position (the tree hidden from the public)
2. area where the saxophone player will play
3. webcam fixed to the ceiling, pointing at the thunder-sheet. Should be invisible to the public
4. monitors for musicians
5. black light
6. stroboscope
7. speakers for the public
8. off-stage or hidden table for computer etc
9. audience

Lexicon

face audience

Mise en scène or stage movement instruction

rotate 80° & back

instruction to rotate the thunder-sheet

black out

Lighting instruction

RECORD

Interaction with the patch



play 1 to 7 times



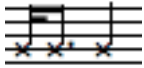
play 6 to 12 times, you can stop the loop at any point and jump directly to the next motif

1
2
3
-

Tf

7

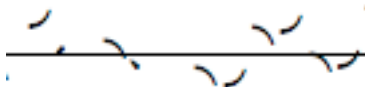
saxophone fingerings



key noises at the pitch specified



shake the thunder-sheet



idea of sound-texture you can create with the thunder-sheet using the bow



long sound played with the bow: the timbre can change during that time

face audience

black out

S'enfeuiller

Sonia Paço-Rocchia

Mechanically

$\text{♩} > 100$

alto saxophone

Musical notation for alto saxophone, consisting of four staves. Each staff contains a sequence of notes with fingerings indicated in circles above the notes: 1-7 and 0-7. The notation includes slurs, repeat signs, and dynamic markings.

The fingerings are specified in order to achieve changes of timbre and to execute the rhythmic line. Give priority to timbre changes over exact pitch.

1	1	1	1	alternate between these two fingerings
2	2	2	2	
3	3	3	3	
-	-	-	-	

slowly turn 90° anticlock wise

key clicks

melody heard

Musical notation for key clicks and melody heard, consisting of two staves. The top staff shows key clicks with fingerings 3-10 and 2-10. The bottom staff shows the melody heard. A box labeled 'air' is positioned below the melody staff.

RECORD

1	1	1	alt	1	11	alt	1	1	1	alt	1	1	1	1
	2	2		2	22			2	2		2	2	2	2
	3	3		3	33			3	3		(G#)			
	-	-		-	-			-	-		-	-	-	-
4			Tf	4		Tf	4			Tf				
	7			7			7						6	5

Final musical notation for key clicks and melody heard, consisting of two staves. The top staff shows key clicks with fingerings 7 and 6. The bottom staff shows the melody heard.

1 1 1 1 2 2 2 2 2 2 2 1 1 1p 1p
 2 2 2 2 2 2 2 2 2 2 2 3 B 3 Bb - -
 - - 4 4 4 - - - 4 4 4 - - - - -
 5 6 6 5 6 5 5 6 6 5 6 6 6 5

1p 1p 1p 1p 1 1 alt 1 1 1 alt 1 1 1 1 1 1
 - - 3 2 2 2 2 2 2 2 2 2 2 2 2
 - - 4 5 Tf 4 Tf 4 Tf 6 5 5
 6 7 7 7 7 6 5 6

1 8 8 8 8 8 8 2 2 2 2 2 1 1 1 1 1 1 1 1 1
 2 3 3 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2
 -
 4 5 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
 6 6 6 6 6 6 6 6 6 6 6 7 7 7 7 7 7 7 7 7

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
 - - 4 - - 4 4 4 - - 4 - -
 5 5 5 5 5 5 5 6 6 6 7 7 7 7 7 7
 6 7 7 6 7 7 7 7 7 7 7 7 7 7 7 7

STOP RECORD (2-10)

face the thunder-sheet

led on

sf

thunder-sheet sf

These motifs can be played in any order, and can be repeated.
 Each motif has an independent tempo, $90 < \text{♩} < 120$
 an independent dynamic *ppp* to *mf* and
 and a pause between each one, between ζ and —

LED PATCH

STOP LED PATCH

	1	1	1	1	1	82						
	2	2	2	2	2	3		1p	1p	1p	1p	1p
	-	-	-	-	-	4		-	-	-	-	-
	6	5	5	4	4	5		6	5	5	4	4
	6	6	6	5	5	6		6	5	6	6	5

led off
face audience

flash +
black light

6-12

15^{ma}

6-12

ff

p

p

thunder-sheet

place a sheet

rotate 60° & back

place a sheet

		1p	1/2	1	1	1	1	1	1	1	1	1
	82		2	2	2	2	2	2	2	2	2	2
	3		-	-	-	-	-	-	-	-	-	-
	4		4				4	4	4	4	4	4
	5		5	5	5	4	4	4	4	5	5	4
	6		6	6	6	5	5	5	6	6	6	6

15^{ma}

3-7

p

thunder-sheet

rotate 80° & back

place a sheet or two

	82	1 1	1 1 1	1p	1p 1p	1p 1p 1p	1 2
	3	-	-	-	-	-	-
	4	-	4 4 4	-	-	4 4 4	-
	5	-	6	5	5 5	6	5
	6	-	-	6	6	6	6

15^{ma}

thunder-sheet

rotate 90° & back

place a sheet or two

82

3

4

5

6

15^{ma}

thunder-sheet

rotate 120° & back

imitate the thunder-sheet sounds, merge with it

thunder-sheet

PATCH ACCUMULATION

face the thunder-sheet

... add key clicks for the patch

thunder-sheet

led
bleue

PATCH
LED SUR
TOLE

place a sheet or two

more rhythmically

punctuate the electronics effects accumulation with these motifs, in order

between them, play these motifs, in any order and possibly more than once

thunder-sheet

keep accumulating sounds in the patch

thunder-sheet

rotate 180° and stay like that

face audience **PATCH CANON** 45 > ♩ > 140

1 2 3 4

5 6 7

electronics voice 2

1 2 3

8 9 10 11

electronics voice 2

4 5 6 7

electronics voice 3

1 2 3 4

electronics voice 4

1 2

12 13 14

electronics voice 2

8 9 10

electronics voice 3

5 6 7

electronics voice 4

3 4 5

STOP PATCH CANON