

*Etude de synchronisation*

*for 10 musicians and electronics*

**Jonathan Bell (2011)**

## Performance Instructions

The tape in this piece should be considered as a learning aid; it is therefore more dedicated to the performers than to the audience.

The performers should be separated in four groups, so that each group can hear one of the four specific channels of the tape. The loudspeakers should be close to the performers, and face towards them.

The conductor is wearing an earpiece, which gives him a click-track (via a fifth channel), allowing for the synchronisation between musicians and the tape. Their position on stage should be as follows:

Speaker channel No1  
Group 1 (Left Rear)  
Flute, Violin and Piano

Speaker channel No2  
Group 2 (Right Rear)  
Percussion and Cello

Group 3 (Left Front)  
Clarinet and Viola  
Speaker channel No3

Group 4 (Right Front)  
Alto Sax. Double Bass and Harp  
Speaker channel No4

Conductor  
Earpiece channel No5

Audience

Flute takes piccolo, Clarinet takes Bass Clarinet.

Percussion requires: 2 cymbals, Gran Casa, a large Tam-tam, 2 crotales.

The conductor score is written in C, double bass sounds an octave lower.

Jonathan Bell, London, 2012

# Etude de Synchronisation

to Richard Baker

Jonathan Bell

The conductor beats two bars in silence in order to facilitate the synchronisation with the tape.

**Left Rear**

Flute *take Alto flute*  
Violin *non vibr.*  
Piano

**Right Rear**

Perc. *Cymbal (soft sticks)*  
Cello *mf non vibr.*

**Left Front**

Clar. B. *non vibr.*  
Viola *non vibr.*

**Right Front**

Alto Sax. *non vibr.*  
Double Bass *non vibr. sounds an octave lower*  
Harp *mp*

*p*  
*pp*  
*mf*  
*mp*  
*pp*  
*p* (sons reels sauf contrindication)

*3*

*3*

This musical score is for a piece titled "Etude de synchronisation". It is a 4/4 piece with a complex, multi-measure structure. The score is divided into three main sections: Left Right (L.R.), Right Right (R.R.), and Right Left (R.F.).

- L.R. Section:** Features Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute part starts with a *p* dynamic. The Violin part starts with a *mf* dynamic. The Piano part includes a *mp* dynamic and a *sffz* dynamic. A performance instruction reads: "Half sustained pedal (or third pedal with low keys captured)".
- R.R. Section:** Features Percussion (Perc.) and Viola (Vc.). The Viola part starts with a *pp* dynamic.
- L.F. Section:** Features Bassoon (B $\flat$  Cl.) and Viola (Vla.). The Bassoon part starts with a *p* dynamic. The Viola part starts with a *pp* dynamic.
- R.F. Section:** Features Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). The Alto Saxophone part starts with a *p* dynamic. The Double Bass part starts with a *mf* dynamic. The Harp part starts with a *mf* dynamic.

The score includes various musical notations such as rests, notes, slurs, and dynamic markings. The time signature is 4/4, and the key signature is one flat (B $\flat$ ).

0'28

L.R.

Fl.

Vln.

Pno.

R.R.

2 Cymbals

Perc.

Vc.

L.F.

B $\flat$  Cl.

Vla.

R.F.

A. Sx.

D.B.

Hp.

**L.R.**

Fl. 20

Vln. 20

Pno. 20

**R.R.**

Perc. 20

Vcl. 20

**L.F.**

B♭ Cl. 20

Vla. 20

**R.F.**

A. Sx. 20

D.B. 20

Hp. 20

*f*

*mf*

*f*

*mf*

3

7

3

3

3

This page of a musical score, titled "Etude de synchronisation", covers measures 25 to 30. The score is organized into several systems, each with a bracketed group of instruments:

- L.R. (Left Right):** Includes Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute and Violin parts feature long, sustained notes with dynamic markings of *p* and *poco a poco molto vibr. e sul pont.*. The Piano part consists of chords with dynamics *mf*, *sfz*, and *fff*.
- R.R. (Right Right):** Includes Percussion (Perc.) and Violoncello (Vc.). The Percussion part has a rhythmic pattern with accents. The Violoncello part has long notes with dynamics *p* and *f*.
- L.F. (Left Front):** Includes Bass Clarinet (Bb Cl.) and Viola (Vla.). The Bass Clarinet part is mostly rests. The Viola part has long notes with dynamics *mf* and *Dim.*
- R.F. (Right Front):** Includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). The Alto Saxophone part is mostly rests. The Double Bass part has long notes with dynamics *pp* and *Cresc.*. The Harp part is mostly rests.

The score is written in 4/4 time, with some measures in 5/4 time. It includes various musical notations such as slurs, accents, and dynamic markings. A rehearsal mark "Reo" is present at the end of the page.

1'00

L.R. { Fl. Vln. Pno.

Reo. -----

R.R. { Perc. Vc.

SOLO

L.F. { B $\flat$  Cl. Vla.

R.F. { A. Sx. D.B. Hp.



**Faster**

31

L.R. { Fl. Vln. Pno.

R.R. { Perc. Vc.

L.F. { B $\flat$  Cl. Vla.

R.F. { A. Sx. D.B. Hp.

*f* *ffz* *Sempre molto sul pont.* *p* *ffz* *Sempre molto sul pont.* *p*

(clarinet solo)

See

This musical score is for a piece titled "Etude de synchronisation". It is divided into three sections: L.R. (Left Right), R.R. (Right Right), and L.F. (Left Front). The score is written for a variety of instruments, including Flute (Fl.), Violin (Vln.), Piano (Pno.), Percussion (Perc.), Viola (Vla.), Clarinet in B-flat (Bb Cl.), Bassoon (A. Sx.), Double Bass (D.B.), and Harp (Hp.).

The score is in 4/4 time and consists of 33 measures. The key signature has one flat (B-flat). The tempo is marked *mp* (mezzo-piano) with a *Cresc.* (crescendo) instruction. The percussion part features a complex rhythmic pattern with accents. The Bb Cl. part includes a "clarinet solo" section and is marked *5:4* and *very tense*. The Viola part is marked *mf* (mezzo-forte). The Double Bass part is marked *mf* and *p* (piano). The Harp part features triplets.

The score is divided into three systems:

- L.R. (Left Right):** Fl., Vln., and Pno.
- R.R. (Right Right):** Perc. and Vc.
- L.F. (Left Front):** Bb Cl. and Vla.
- R.F. (Right Front):** A. Sx., D.B., and Hp.

$\text{♩} = 120$   
**Much Faster**

1'18

Score for **Much Faster**, starting at measure 36. The piece is in 4/4 time and features a complex rhythmic pattern of 4, 4, 5, 6, and 3/4 measures.

**L.R. (Left Right):**

- Fl.**: Flute part, mostly rests.
- Vln.**: Violin part, melodic line with *ff* dynamic.
- Pno.**: Piano part, bass line with *f* and *ff* dynamics.

**R.R. (Right Right):**

- Perc.**: Percussion part with rhythmic patterns and accents.
- Vc.**: Viola part, melodic line with *ff* and *fff* dynamics. Includes the instruction *Sempre molto sul pont.*

**L.F. (Left Front):**

- B♭ Cl.**: Bass Clarinet part, melodic line with *ff* dynamic.
- Vla.**: Violoncello part, accompaniment with *f* dynamic.

**R.F. (Right Front):**

- A. Sx.**: Alto Saxophone part, includes instruction *Take Baryton Saxophone* and *Growl, (transposed)*. Dynamics range from *f* to *fff*.
- D.B.**: Double Bass part, melodic line with *ff* dynamic.
- Hp.**: Harp part, accompaniment with triplets.

$\text{♩} = 60$

### Suddenly Very Slow

L.R. { Fl. Vln. Pno. }

R.R. { Perc. Vc. }

L.F. { B♭ Cl. Vla. }

R.F. { A. Sx. D.B. Hp. }

1'26  
♩ = 160

L.R. { Fl. 42  
Vln. 42  
Pno. 42

R.R. { Perc. 42  
Vc. 42

L.F. { B♭ Cl. 42  
Vla. 42

R.F. { A. Sx. 42  
D.B. 42  
Hp. 42

*pppp* *8vb-* *8vb-*

*Con Sordino*  
*ppp*

*ppp* *ppp* *sfz*

*Molto Sul Pont.*  
IV

*pp* *pp*

1'45

**L.R.**

Fl.

Vln.

Pno.

**R.R.**

Perc.

Vc.

**L.F.**

B♭ Cl.

Vla.

**R.F.**

A. Sx.

D.B.

Hp.

Tam-tam

Long squeak with the bottom end of the stick

Sempre molto sul pont.

with exagperate pressure

ppp

pp

f

f

fff

fff

8<sup>vb</sup>

8<sup>vb</sup>



2'40

Fl.

Vln.

Pno.

take the piccolo

au talon use the whole bow

*sffz* *f* *ff*

*ff*

*8va*

Granular texture : pressure and slow motion with a brush (straw or metal) on Gran Casa, Cymbal or Tam-Tam

Perc.

Vc.

Gran Casa

Ord.

*f* *mf* *sfz* *ff*

Take Soprano Clarinet

growl poco a poco

B $\flat$  Cl.

Vla.

au talon use the whole bow

*sffz* *f*

A. Sx.

D.B.

Hp.

*p* *f* *mf* *f*



**3'19**      **Little bit faster**      **Rit....**      **A tempo**

take the alto flute  
Jet Whistle

Fl.      Vln.      Pno.      Perc.      Vc.      B $\flat$  Cl.      Vla.      A. Sx.      D.B.      Hp.

L.R.      R.R.      L.F.      R.F.

This musical score is for an 'Etude de synchronisation' (synchronization study) on page 18. The score is divided into three main sections: L.R. (Left Right), R.R. (Right Right), and L.F. (Left Front). The instruments and parts are as follows:

- L.R. Section:**
  - Fl. (Flute):** Starts at measure 82 with a 'Jet Whistle' effect. It features triplets and a dynamic marking of *ffz*.
  - Vln. (Violin):** Remains silent throughout this section.
  - Pno. (Piano):** Features triplets in the left hand and a complex chordal structure in the right hand, including a sub-octave (*8vb*) and a *pp* dynamic marking.
- R.R. Section:**
  - Perc. (Percussion):** Remains silent.
  - Vc. (Violoncelle):** Remains silent.
- L.F. Section:**
  - B. Cl. (Bass Clarinet):** Enters at measure 82 with a 'Bass clarinet suraigu' (high register) effect. It has a dynamic range from *f* to *fff*.
  - Vla. (Viola):** Remains silent.
- R.F. Section:**
  - A. Sx. (A. Saxophone):** Features complex rhythmic patterns with triplets and a dynamic marking of *fff*.
  - D.B. (Double Bass):** Features a 'écrasé (excessive pressure)' effect and complex rhythmic patterns with a dynamic marking of *ff*.
  - Hp. (Harpsichord):** Features a triplet in the right hand with a dynamic marking of *mf*.

Additional markings include a circled '3'36' in the top right, and various dynamic markings such as *pp*, *ffz*, *f*, *fff*, and *mf*.

3'48 4'04

L.R. { Fl. 85 Vln. 85 Pno. 85

R.R. { Perc. 85 Vc. 85

L.F. { B $\flat$  Cl. 85 Vla. 85

R.F. { A. Sx. 85 D.B. 85 Hp. 85

This musical score is for a piece titled "Etude de synchronisation". It is arranged for a large ensemble and is divided into three main sections: Left Right (L.R.), Right Right (R.R.), and Right Front (R.F.).

- L.R. Section:** Includes Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute and Violin parts begin at measure 91 with a *mf* dynamic and a *trill* marking. The Violin part also includes a *sul pont.* marking and a *p* dynamic. The Piano part features a *ppp* dynamic marking.
- R.R. Section:** Includes Percussion (Perc.) and Violoncello (Vc.). Both parts are marked with rests throughout the section.
- L.F. Section:** Includes Bass Clarinet (B♭ Cl.) and Viola (Vla.). Both parts are marked with rests throughout the section.
- R.F. Section:** Includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). The Harp part includes a *mp* dynamic and a *pp* dynamic, along with a *7* (seventh) fingering marking.

The score is written in a key signature of one sharp (F#) and a time signature of 2/4. The music is divided into measures, with some measures containing rests. The dynamics range from *ppp* (pianissimo) to *mf* (mezzo-forte).

# Etude de synchronisation

**Tempo:** ♩ = 60

**Section 1: Jet Whistle** (4'38)

**Section 2: Gran Casa** (4'49)

**Instrumentation:** Fl., Vln., Pno., Perc., Vc., B♭ Cl., Vla., A. Sx., D.B., Hp.

**Performance Instructions:** *sfz*, *f*, *Molto Sul Pont.*, *p*, *8va*, *glissando*, *ppp*, *8vb*, *mf*, *ff*, *sul pont.*, *Molto Sul Tasto*, *Molto sul Pont.*, *Tasto*, *pizz bartok*, *mf*, *ff*.

♩ = 80  
5'06

**L.R.**

Fl. Jet Whistle

Vln. *glissando* *f* *sfz*

Pno. *mf* *ppp* *pp*

**R.R.**

Perc. Cymbal 1 soft stick

Vc. *mf* Crescendo until bar 125 *pp* Pizz.

**L.F.**

B♭ Cl. *Sul Pont.* *Molto Sul Pont.* *Sul Pont.* *pp*

Vla. *Tasto* *Tasto*

**R.F.**

A. Sx. *pp* *f* *p* *f*

D.B. *f* *p*

Hp. *mp* *f*

Rit....

A tempo

Rit....

L.R. {

110 Fl.

110 Vln.

110 Pno.

R.R. {

110 Perc.

110 Vc.

Cymbal 2

L.F. {

110 B♭ Cl.

110 Vla.

R.F. {

110 A. Sx.

110 D.B.

110 Hp.

Molto Sul Pont. Tasto

ff f p

5'26

A tempo

Rit....

A tempo

L.R. { Fl. Vln. Pno. }

R.R. { Perc. Vc. }

L.F. { B♭ Cl. Vla. }

R.F. { A. Sx. D.B. Hp. }

8<sup>va</sup> glissando

Tam-Tam mallet

sempre pizz.

15<sup>ma</sup>

Molto Sul Pont. Tasto

mp

mf

ff

f

p

ff



Take C flute

Rit....

A tempo

rit.molto

L.R.

Fl. *mf*

Vln. *mf*

Pno. *mf*

*ff*

Musical score for the L.R. section. It includes parts for Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute part features triplet patterns. The Violin part has a melodic line with a dashed line indicating a first ending. The Piano part provides harmonic support. Dynamics range from *mf* to *ff*. The tempo markings are Rit..., A tempo, and rit.molto.

R.R.

Perc.

Vc. *ff*

Musical score for the R.R. section. It includes parts for Percussion (Perc.) and Violoncello (Vc.). The Percussion part is mostly rests. The Violoncello part has a melodic line. Dynamics range from *ff*.

L.F.

B $\flat$  Cl. *ff*

Vla. *ff*

Musical score for the L.F. section. It includes parts for Bass Clarinet (B $\flat$  Cl.) and Viola (Vla.). The Bass Clarinet part has a melodic line with a dashed line indicating a first ending. The Viola part has a melodic line. Dynamics range from *ff*.

R.F.

A. Sx. *ff*

D.B. *f* *p* *ff*

Hp. *fff* *ff*

*Tasto*

*Molto Su $\grave{a}$  Pont.*

Musical score for the R.F. section. It includes parts for Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). The Alto Saxophone part has triplet patterns. The Double Bass part has a melodic line with dynamics *f*, *p*, and *ff*. The Harp part has a melodic line. Dynamics range from *fff* to *ff*. The tempo markings are *Tasto* and *Molto Su $\grave{a}$  Pont.*

# Etude de synchronisation

5/26 ♩ = 120

## Much Faster

**L.R.**

Fl. *Flatt.*

Vln. *sfz* *fff*

Pno.

**R.R.**

Perc. Cymbal

Vc. *f* *ff*

**L.F.**

B♭ Cl. *ff* *glissando* *sfz*

Vla. *ff* *glissando* *sfz*

**R.F.**

A. Sx. *growl* *fff* *fff* *3:2* *5* *5* *5*

D.B. *fff* *fff* *II* *I*

Hp.

Etude de synchronisation

**much slower**

6'06

6'10

**slower**

♩ = 54

Score for Etude de synchronisation, page 27. The score is divided into sections: L.R. (Left Right), R.R. (Right Right), L.F. (Left Feet), and R.F. (Right Feet). The tempo markings are **much slower** and **slower**, with a metronome marking of ♩ = 54. The score includes parts for Flute (Fl.), Violin (Vln.), Piano (Pno.), Percussion (Perc.), Violoncello (Vc.), Bass Clarinet (B♭ Cl.), Viola (Vla.), Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.).

Key performance instructions include:

- Fl.:** Rests throughout.
- Vln.:** *gliss.* (measures 133-134), *mf* (measure 134), *ff* (measures 135-136), *sempre glissando* and *Sempre molto sul pont.* (measures 137-138).
- Perc.:** Rests throughout.
- Vc.:** *ff* (measure 133), *Sempre molto sul pont.* (measures 133-138).
- B♭ Cl.:** Rests throughout.
- Vla.:** Rests throughout.
- A. Sx.:** *growl* (measure 135), *ff* (measures 135-136), *Sempre molto sul pont.* (measures 137-138).
- D.B.:** *glissando* (measure 133), *ff* (measures 133-134), *p* (measure 134), *ff* (measures 135-136), *f* (measure 137), *sfz* (measure 138), *col legno batt.* (measures 137-138).
- Hp.:** *buzzing pedal* (measures 135-136), *ff* (measures 137-138).

The score features various time signatures (4/4, 3/4, 8/8) and dynamic markings (*mf*, *ff*, *f*, *sfz*, *p*).

6'18 6'24

L.R. Fl. Vln. Pno.

R.R. Perc. Vc.

L.F. B $\flat$  Cl. Vla.

R.F. A. Sx. D.B. Hp.

*mf* *pp* *mf* *pp* *p cresc.* *pp* *pizz bartok* *mf*

2 Crotales

Alto Saxophone

*sempre tremolo et glissando sul pont.*

6'33

6'40

L.R.

Fl.

Vln.

Pno.

R.R.

Perc.

Vc.

L.F.

B $\flat$  Cl.

Vla.

R.F.

A. Sx.

D.B.

Hp.

Gran Casa

*sfz*

*fff*

*pp*

*glissando sul pont.*

*f*

*pp subito*

*pp*

*glissando sul pont.*

*pp subito*

*glissando*

*pp*

*glissando*

*pp subito*

*fff*

*buzzing pedal*

6'48

Poco Rit... A tempo

**L.R.**

Fl. 144

Vln. 144 *glissando sul pont.* *p* *sfz* *Sempre molto sul pont.* *f*

Pno. 144 *ff* *3* *ff* *3*

**R.R.**

Perc. 144

Vc. 144 *mp* *gliss. sul pont.* *>*

**L.F.**

B $\flat$  Cl. 144

Vla. 144 *I* *II* *mf* *glissando sul pont.* *f* *Sempre molto sul pont.* *f*

**R.F.**

A. Sx. 144 *f* *3*

D.B. 144 *f* *3* *pp* *sul pont.*

Hp. 144

7'02

Fast ♩ = 120

L.R.

Fl.

Vln.

Pno.

R.R.

Perc.

Vc.

2 Cymbals

mf

L.F.

B♭ Cl.

Vla.

take Bass Clarinet

molto vibr.

f

R.F.

A. Sx.

D.B.

Hp.

7'14

This page of a musical score, titled "Etude de synchronisation", contains measures 150 through 154. The score is organized into several systems, each with a bracketed group of instruments on the left. The first system, labeled "L.R.", includes Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute part is mostly silent, with a circled "7'14" above it. The Violin part features a melodic line with dynamic markings of *ff*, *f*, *fff*, and *ff*. The Piano part is silent. The second system, labeled "R.R.", includes Percussion (Perc.) and Violoncello (Vc.). The Percussion part has a rhythmic pattern of eighth notes with accents, while the Violoncello part is silent. The third system, labeled "L.F.", includes B♭ Clarinet (B♭ Cl.) and Viola (Vla.). The B♭ Clarinet part has a long note in the final measure with a dynamic marking of *f* and a wavy line above it. The Viola part is silent. The fourth system, labeled "R.F.", includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). All three instruments in this system are silent throughout the measures.



$\bullet = 160$   
**much faster**

L.R.

154

Fl.

Vln.

Pno.

*8va*

*fff*

R.R.

154

Perc.

Vc.

L.F.

154

B $\flat$  Cl.

Vla.

R.F.

154

A. Sax.

D.B.

Hp.

$\frac{7}{24}$   
Slower ♩ = 96

L.R. { Fl. Vln. Pno. }

R.R. { Perc. Vc. }

L.F. { B♭ Cl. Vla. }

R.F. { A. Sx. D.B. Hp. }

subtone  
5  
ppp  
3  
3:2  
3:2  
3  
tr  
ff  
fff  
sfz  
sfz  
sfz

7'36

Fast ♩ = 120

L.R. { Fl. Vln. Pno.

R.R. { Perc. Vc.

L.F. { B♭ Cl. Vla.

R.F. { A. Sx. D.B. Hp.

*Sul pont e molto vibrato*

*15<sup>ma</sup>*

*ff*

*sfz*

*sfz*

# Etude de synchronisation

36

7'46

Slow ♩ = 60

7'56

The score is divided into three main sections: L.R. (Left Right), R.R. (Right Right), and R.F. (Right Front).

- L.R. Section:** Includes Flute (Fl.), Violin (Vln.), and Piano (Pno.).
  - Flute: Measures 165-168, starting with a whole note G4, then a half note G4, and a whole note G4. Dynamics: *pp*.
  - Violin: Measures 165-168, starting with a whole note G4, then a half note G4, and a whole note G4. Dynamics: *pp*, with *con sordino* marking.
  - Piano: Measures 165-168, starting with a whole note G4, then a half note G4, and a whole note G4. Dynamics: *p*.
- R.R. Section:** Includes Percussion (Perc.) and Violoncello (Vc.).
  - Percussion: Measures 165-168, all rests.
  - Violoncello: Measures 165-168, all rests.
- L.F. Section:** Includes Bass Clarinet (B♭ Cl.) and Viola (Vla.).
  - Bass Clarinet: Measures 165-168, all rests.
  - Viola: Measures 165-168, all rests.
- R.F. Section:** Includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.).
  - Alto Saxophone: Measures 165-168. Measure 165 has a quarter note B3. Measure 166 has a quarter rest. Measure 167 has a quarter rest. Measure 168 has a triplet of eighth notes (B3, A3, G3) followed by a triplet of eighth notes (F3, E3, D3). Dynamics: *fff*.
  - Double Bass: Measures 165-168. Measure 165 has a quarter note B3. Measure 166 has a quarter note G3. Measure 167 has a quarter note F3. Measure 168 has a triplet of eighth notes (B3, A3, G3) followed by a triplet of eighth notes (F3, E3, D3). Dynamics: *mp* (measures 166-167), *pp* (measure 168), *fff* (measures 168).
  - Harp: Measures 165-168, all rests.

Etude de synchronisation

169 *Growl* *mp* 3 8'08 11

L.R. Fl. Vln. Pno.

R.R. Perc. 2 Cymbals Vc.

L.F. B $\flat$  Cl. Vla.

R.F. A. Sx. D.B. Hp.

*Play this section four times*

The musical score is organized into four systems of staves, each with a bracketed label on the left:

- L.R. (Left Right):** Includes Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute part has a melodic line starting at measure 173 with a dynamic marking of *ff* and a fermata. The Violin and Piano parts are mostly silent with some chordal accompaniment.
- R.R. (Right Right):** Includes Percussion (Perc.) and Viola (Vc.). The Percussion part has a rhythmic pattern starting at measure 173. The Viola part is mostly silent with some chordal accompaniment.
- L.F. (Left False):** Includes Bassoon (B $\flat$  Cl.) and Violoncello (Vla.). Both parts are mostly silent with some chordal accompaniment.
- R.F. (Right False):** Includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). All parts are mostly silent with some chordal accompaniment.

The score is in 2/4 time and consists of four measures. The first measure starts at measure 173. The second measure continues the melodic line in the Flute. The third measure features a dynamic marking of *ff* and a fermata. The fourth measure concludes the section with a repeat sign.

This musical score page, titled "Etude de synchronisation" and numbered 39, is divided into four main sections of instruments, each with a bracketed label on the left: L.R. (Left Right), R.R. (Right Right), L.F. (Left Front), and R.F. (Right Front). The score is written in 2/4 time and begins at measure 175. The L.R. section includes Flute (Fl.), Violin (Vln.), and Piano (Pno.). The R.R. section includes Percussion (Perc.) and Viola (Vc.). The L.F. section includes Bass Clarinet (B♭ Cl.) and Viola (Vla.). The R.F. section includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). The Flute part features a complex melodic line with various ornaments and articulations, including accents and slurs. The Percussion part has a rhythmic pattern with accents. The other instruments are mostly silent, indicated by rests.

This musical score page, numbered 40, is titled "Etude de synchronisation". It features a multi-staff arrangement for a chamber ensemble. The score is divided into three main sections: Left Front (L.F.), Right Front (R.F.), and Right Rear (R.R.).

- L.R. (Left Rear):** Includes Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute part begins at measure 178 with a melodic line marked *p* (piano), which then crescendos to *ffz* (fortissimo, *z* for *zorglos*) and concludes with a *ff* (fortissimo) section featuring a triplet of eighth notes.
- R.R. (Right Rear):** Includes Percussion (Perc.) and Viola (Vc.). The Percussion part has a rhythmic pattern of eighth notes with accents, while the Viola part is mostly silent.
- L.F. (Left Front):** Includes Bass Clarinet (B $\flat$  Cl.) and Viola (Vla.). Both parts are silent throughout this section.
- R.F. (Right Front):** Includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). All three parts are silent throughout this section.

The score is written in 2/4 time and spans measures 178 to 182. The key signature has one flat (B $\flat$ ). The Flute part includes dynamic markings *p*, *ffz*, and *ff*, along with a triplet of eighth notes in the final measure.



♩ = 80 8'47

**Slower**

♩ = 60

L.R.

Fl. 183

Vln. 183 *p*

Pno. 183 *p*

R.R.

Perc. 183

Vc. 183 *mp*

*flautando sul tasto*

L.F.

B♭ Cl. 183

Vla. 183 *p*

*Pizz.*

R.F.

A. Sx. 183 *Growl*

D.B. 183 *Molto Sul Pont.* *ff*

Hp. 183 *buzzing pedal* *fff*

189 **accel.** ----- **rit.**

L.R. {

Fl.

Vln.

Pno.

R.R. {

Perc. **Tam-Tam** *Long squeak with the bottom of the stick  
Improvise on the Tam-tam  
(without standard mallet attack)*

**Gran Casa**

Vc. **ff**

*ff* mute the string and change its length with left hand  
exaggerate the pressure with the bow (pression, ecrasé) **fff**

L.F. {

B♭ Cl.

Vla.

R.F. {

A. Sx. *Play a complex multiphonic*

*another multiphonic, sempre pp*

D.B.

**f** **p** **ff**

R.F. {

Hp. **f**

*triangle = palm muting*

# Etude de synchronisation

**Tempo 1:** ♩ = 54 (9'21)

**Tempo 2:** ♩ = 72 (9'28)

**L.R. (Left Right):**

- Fl. (Flute): *ppp*, *pppp*, *pppp*
- Vln. (Violin): *pppp*
- Pno. (Piano): *pp*, *ppp*, *pppp* (7:8)

**R.R. (Right Right):**

- Perc. (Percussion)
- Vc. (Violoncello)

**L.F. (Left Front):**

- B♭ Cl. (Bass Clarinet)
- Vla. (Viola)

**R.F. (Right Front):**

- A. Sx. (Alto Saxophone)
- D.B. (Double Bass)
- Hp. (Harp)

**Improvisation Instructions:**

- A. Sx. and D.B.: *improvise, mainly with these notes,* (with notes and triplet markings)
- D.B.: *improvise, mainly with these notes,* (with notes and triplet markings)
- Hp.: *buzzing pedal* (with *fff* and *8<sup>vb</sup>* markings)

L.R. { Fl. 201  
Vln. 201  
Pno. 201

R.R. { Perc. 201  
Vc. 201

L.F. { B♭ Cl. 201  
Vla. 201

R.F. { A. Sx. 201  
D.B. 201  
Hp. 201

9'56

**L.R.**

Fl. *Jet Whistle* *fff*

Vln. *Sensa sordino* *ff* *Articulate with fingers*

Pno. *ff* *fff*  
*left hand : cluster on the white keys*  
*right hand : cluster on the black keys*

**R.R.**

Perc.

Vc. *sul pont.* *fff*

**L.F.**

B $\flat$  Cl. *sul pont.* *fff*

Vla. *sul pont.* *fff*

**R.F.**

A. Sx.

D.B.

Hp.

209

L.R. { Fl. 209

Vln. 209 *slow glissando*

Pno. 209 *fff* *pp*

8vb

R.R. { Perc. 209

Vc. 209 *slow glissando*

L.F. { B $\flat$  Cl. 209 *pp*

Vla. 209 *slow glissando*

R.F. { A. Sx. 209 *pp* 3

D.B. 209 *slow glissando*

Hp. 209

10'08

This page of a musical score, titled "Etude de synchronisation" (page 47), covers measures 213 to 217. A circled rehearsal mark "10'08" is positioned above measure 213. The score is divided into three sections: Left Right (L.R.), Right Right (R.R.), and Right Left (R.F.).

- L.R. Section:** Includes Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute and Violin parts are mostly rests, with the Violin playing a long note in measure 217. The Piano part features a melodic line in the right hand starting in measure 214, marked *p*, and a sustained bass line in the left hand.
- R.R. Section:** Includes Percussion (Perc.) and Violoncello (Vc.). Both parts are mostly rests, with the Violoncello playing a long note in measure 217.
- L.F. Section:** Includes Bass Clarinet (Bb Cl.) and Viola (Vla.). The Bass Clarinet has a melodic line starting in measure 214, marked *mp*. The Viola part is mostly rests, with a long note in measure 217.
- R.F. Section:** Includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). The Alto Saxophone has a melodic line with triplets in measures 213-215, marked *p*. The Double Bass and Harp parts are mostly rests, with the Harp playing a melodic line in the right hand and a bass line in the left hand.

The score uses various time signatures: 3/4, 4/4, and 3/2. Dynamics include *p* (piano) and *mp* (mezzo-piano). Performance markings include slurs and triplets.

10'29

**L.R.**

Fl. 217

Vln. 217 *Sempre cresc.*

Pno. 217 *mp* *mf*

**R.R.**

Perc. 217

Vc. 217 *Sempre cresc.*

**L.F.**

B♭ Cl. 217 *mf* *f*

Vla. 217 *Sempre cresc.*

**R.F.**

A. Sx. 217 *mp* *mf* 3

D.B. 217 *Sempre cresc.*

Hp. 217



10'40

**L.R.**

Fl.

Vln.

Pno.

**R.R.**

Perc.

Vc.

**L.F.**

B♭ Cl.

Vla.

**R.F.**

A. Sx.

D.B.

Hp.

*Sempre cresc.*

*Pizz.*

*f*

3

10'46

L.R. { Fl. 226 Vln. 226 Pno. 226

R.R. { Perc. 226 Vc. 226

L.F. { B♭ Cl. 226 Vla. 226

R.F. { A. Sx. 226 D.B. 226 Hp. 226

(the cross represents the stopping of the voice)

Scream "Oooh" Medium Tom or Kettle Drum Scream "Oooh" Medium Tom or Kettle Drum Simile

Gran Casa Arco *f*

(or else highest note possible on bass clarinet)

*ffff* *ff* *ffz*

Buzzing pedal

aa a ha aa a ha

3 3 5

This musical score is for a synchronization exercise, page 51. It is divided into three main sections: L.R. (Left Right), R.R. (Right Right), and R.F. (Right Foot).

**L.R. Section:** Includes Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Flute and Piano parts are mostly rests. The Violin part starts at measure 231 with a *Sempre cresc.* marking and features a melodic line that changes meter from 3/4 to 4/4 to 3/4 to 4/4 to 5/4.

**R.R. Section:** Includes Percussion (Perc.) and Violin (Vc.). The Percussion part features a *Cymbal roll* starting in measure 231. The Violin part also starts at measure 231 with a *Sempre cresc.* marking and has a melodic line similar to the L.R. Violin part.

**L.F. Section:** Includes Bass Clarinet (B $\flat$  Cl.) and Viola (Vla.). The Bass Clarinet part starts at measure 231 with a *ff* dynamic and a wavy line above it, with the instruction *(or else highest note possible on bass clarinet)*. The Viola part starts at measure 231 with a melodic line.

**R.F. Section:** Includes Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). The Alto Saxophone part starts at measure 231 with a *fff* dynamic. The Double Bass part starts at measure 231 with a melodic line and the vocalization *aa a ha*. The Harp part starts at measure 231 with a *fff* dynamic and a five-note arpeggio marked with a '5'.

Suddenly very slow ♩ = 40

in these passages, the pulse of each group must be of equal dynamic

L.R. { Fl. Vln. Pno. mf *leo* *leo* *leo* *leo* *leo* }  
R.R. { Perc. Kettle Drum Play on the edge, with the bottom of the sticks, the pulse is given by the tape. *pp* Vc. }  
L.F. { B<sup>b</sup> Cl. Vla. pizz behind the bridge : the pulse is given by the tape *pp* }  
R.F. { A. Sx. growl or flatt. *mf* *mf* *mf* *mf* D.B. Hp. Tap the body of the instrument, follow the pulse of the tape *pp* }

12'06

**L.R.**

Fl. 242 au talon use the whole bow

Vln. 242 *sffz* *ff* *sffz* au talon use the whole bow

Pno. 242 *fff* *ff*

**R.R.**

Perc. 242 Wood block follow the rhythm of the tape

Vc. 242 *mf*

**L.F.**

B $\flat$  Cl. 242 au talon use the whole bow

Vla. 242 *sffz* *sffz*

**R.F.**

A. Sx. 242

D.B. 242 *mp*

Hp. 242

19:16

L.R. { Fl. 248 *8va - mf* *f* *sffz* *mf*

Vln. 248 *f* *f* *Sempre molto sul pont.* *mf*

Pno. 248 *ff* *sffz* *8va*

R.R. { Perc. 248

Vc. 248 *mf*

L.F. { B $\flat$  Cl. 248

Vla. 248 *fff* *ff* *fff*

R.F. { A. Sx. 248

D.B. 248

Hp. 248

*au talon use the whole bow*

Etude de synchronisation

12'46

13'04

L.R. { Fl. 254 *fff* *Sempre molto sul pont.* *mf*

Vln. 254 *f*

Pno. 254 *fff* *8vb-1* *3* *cluster black keys* *fff* *cluster white keys* *fff* *Rec.*

R.R. { Perc. 254

Vc. 254 *mf*

L.F. { B♭ Cl. 254

Vla. 254 *fff* *fff* *Sempre molto sul pont. P* *I* *mf* *II*

R.F. { A. Sx. 254

D.B. 254 *mp*

Hp. 254 *mp* *3*

3 crotales  
Improvise pp until the end.

play on the edge, with the bottom of the sticks  
play at the same time as the tape

L.R. { Fl. 260 Vln. 260 Pno. 260

R.R. { Perc. 260 Vc. 260

L.F. { B♭ Cl. 260 Vla. 260

R.F. { A. Sx. 260 D.B. 260 Hp. 260

*pluck with nails the high pitched strings inside the piano, behind the bridge, without any specific rhythm sempre pp*

*pp*

*Molto Sul Pont.*  
*mf*

*Sul Pont.*  
*I and II*  
*mf*

*pp*

*ppp*



# Etude de synchronisation

13'34

13'40

**L.R.**

Fl. 263

Vln. 263

Pno. 263

*II sul pont.*  
*III sul pont.*  
*pp*

*sfz*

*pluck with nails the high pitched strings inside the piano, behind the bridge, without any specific rhythm sempre pp, until the end*

**R.R.**

Perc. 263

Vc. 263

**L.F.**

B♭ Cl. 263

Vla. 263

*pp*

*I sul pont.*  
*II sul pont.*  
*mf*

**R.F.**

A. Sx. 263

D.B. 263

Hp. 263

*pppp*

*pp*

*3*

This page of the musical score, titled "Etude de synchronisation", contains measures 266 through 270. The score is divided into four systems of staves, each with a bracketed group of instruments:

- L.R. (Left Right):** Flute (Fl.), Violin (Vln.), and Piano (Pno.). The Violin part features a *sul pont.* passage with *ppp* dynamics. The Piano part includes a series of 'x' marks on the treble staff and a *pppp* dynamic marking at the end of the system.
- R.R. (Right Right):** Percussion (Perc.) and Viola (Vc.).
- L.F. (Left Front):** Bassoon (B $\flat$  Cl.) and Viola (Vla.). The Bassoon part has a melodic line with fingerings 6, 5, and 3. The Viola part has a *sul pont.* passage with *mf* dynamics.
- R.F. (Right Front):** Alto Saxophone (A. Sx.), Double Bass (D.B.), and Harp (Hp.). The Harp part features a triplet of chords starting at measure 266, with dynamics *p*, *pppp*, *ppp*, and *pppp*.