

# **a fundamental asymmetry [a]**

for ensemble and electronics  
para Esamble Cepromusic

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2020

## Instrumentación

fl, cl, cl. bajo, fgt, tpt, trbn, pno, vn, vn, va, vc, db, y medios electrónicos.

electrónica:

2 altavoces, uno de cada lado del escenario.

Consta de una serie de grabaciones que se reproducen en distintos momentos, indicados en la partitura.

## Notación y técnicas instrumentales

**Notación y Técnicas Instrumentales**

**A**: Partitura musical con indicaciones de tempo (~40 bpm), sección / letra de ensayo, y métrica (número de unidades de tiempo en el compás).

**flute**: Partitura para flauta con indicaciones de dynamicas (mfp) y articulaciones (accents).

**accidentales**: Escala de cuartos de tono.

**inflexión microtonal**: Inflexión microtonal (aprox. 1/8 de tono).

**transformación gradual**: Proceso de transformación gradual.

**acentos**:

- > acento normal
- >> acento muy exagerado

**nota ligada**: Nota ligada entre notas articuladas.

## alientos

**cabezas de nota:**

- normal
- sonido eólico (con muy poca presencia de la altura indicada)
- slap tongue.

Voz. La posición de la nota sobre el eje vertical del sistema inferior sugiere la altura, relativa al registro del intérprete. La función de la voz es hacer más complejo el timbre mediante la generación de multifónicos, tonos diferenciales y/o batimientos. Procura que la voz se mezcle con el sonido del saxofón, en un timbre nuevo; evita que se escuche como una línea independiente.

Multifónico libre, con presencia audible de la altura indicada.

**articulación interna:**

- re-articulación seca muy rápida
- articulación interna muy suave y rápida: co diafragma o frulato de garganta.

frulato

## piano

**piano**: Partitura para piano.

Cada línea horizontal representa la duración de una de las notas articuladas.

**registro:**

- 8 (octava arriba)
- 15 (dos octavas arriba)
- 8 (una octava abajo)

octava arriba y dos octavas arriba, respectivamente

una octava abajo

## pedales

Pedal central: sostenuto

Pedal derecho: resonancia

El pedal izquierdo (una cuerda) puede ser usado ad libitum.

## cuerdas

**contacto del arco sobre la cuerda**

- molto sul tasto: aproximadamente sobre el tercer armónico (quinta)
- sul tasto, justo por encima del comienzo del diapasón
- ord
- sul pont: justo entre ord y el puente.
- extremo sul ponticello

NOTA: Cuando no aparecen los cuatro rectángulos, los que faltan son los superiores.

**noteheads:**

- presión normal de dedo
- ◇ presión de armónico (no necesariamente sobre el nodo de un armónico natural)
- ⊕ cuerda "apagada", con la palma o un lado de la mano izquierda

**técnicas del arco**

- arco sin movimiento punta-talón, pero moviéndose, como cepillando, entre las regiones de la cuerda descritas por la gráfica (msp-mst)
- arco circular o semi-circular. Ambos símbolos describen un sólo movimiento (ya sea de una sección del círculo o el círculo completo) cuya duración y tamaño del círculo, (en relación con el largo del arco 2) está sugerida por la altura y longitud del rectángulo gris.
- jeté controlado, siempre a la punta y muy pequeño.
- arco en movimiento vertical [de puente a diapasón o viceversa] sin ningún desplazamiento (punta-talón). Sonido rugoso; scratch.

**otras técnicas y símbolos de notación**

- vibrato: la gráfica indica su amplitud y velocidad relativa
- Altura relativa. La altura del rectángulo gris representa la longitud del diapasón.

## a fundamental asymmetry [a] + [b]

**a fundamental asymmetry** [a] y [b] pueden ser interpretadas de manera independiente o simultáneamente. Cuando se tocan juntas, el trio [b], debe ubicarse dentro del mismo espacio que el ensamble más grande [a].

Los dos ensambles deben entrar en sincronía, siguiendo la entrada dada por el director de [a]. Sin embargo, cada pieza tiene su propia temporalidad y, después de ese primer momento, no se debe buscar la sincronía.

# a fundamental asymmetry [a]

Iván Naranjo

2020

**A**

~40

2      3      2      2      2      2

flute  
Cl. in Bb  
B. Cl.  
Fgt.

Tpt.  
Tbn.

piano  
8 >

violin I  
II  
III  
mp  
8 >  
8 >  
8 >

violin 2  
legno  
8 >  
8 >  
8 >

viola  
pizz  
mf  
ppp  
mf  
mf

cello  
p  
mf  
mf  
mf  
mf

d.bass  
I  
mp  
mf  
mf  
mf

This musical score page A shows a single system of music across six systems of staves. The top staff includes flute, Clarinet in Bb, Bass Clarinet, Bassoon, Trombone, and Trompete. The middle staff includes Piano and Trombone. The bottom staff includes Violin I, Violin II, Viola, Cello, and Double Bass. Measure 1 starts with a dynamic of ~40 and a tempo of 2. Measure 2 starts with a dynamic of 3. Measures 3-6 show various dynamics such as p, pp, mp, mf, and f. Measures 7-10 show dynamics like mf, pp, p, and pp. Measures 11-14 show dynamics like mf, p, pp, and mf. Measures 15-18 show dynamics like pp, mf, p, and mf. Measures 19-22 show dynamics like f, mf, p, and mf. Measures 23-26 show dynamics like mf, pp, mf, and f. Measures 27-30 show dynamics like mf, p, pp, and mf. Measures 31-34 show dynamics like pp, mf, f, and pp. Measures 35-38 show dynamics like mf, pp, mf, and pp. Measures 39-42 show dynamics like mf, pp, mf, and pp. Measures 43-46 show dynamics like pp, mf, mf, and pp. Measures 47-50 show dynamics like mf, pp, mf, and pp. Measures 51-54 show dynamics like pp, mf, mf, and pp. Measures 55-58 show dynamics like mf, pp, mf, and pp. Measures 59-62 show dynamics like pp, mf, mf, and pp. Measures 63-66 show dynamics like mf, pp, mf, and pp. Measures 67-70 show dynamics like pp, mf, mf, and pp. Measures 71-74 show dynamics like mf, pp, mf, and pp. Measures 75-78 show dynamics like pp, mf, mf, and pp. Measures 79-82 show dynamics like mf, pp, mf, and pp. Measures 83-86 show dynamics like pp, mf, mf, and pp. Measures 87-90 show dynamics like mf, pp, mf, and pp. Measures 91-94 show dynamics like pp, mf, mf, and pp. Measures 95-98 show dynamics like mf, pp, mf, and pp. Measures 99-102 show dynamics like pp, mf, mf, and pp.

2      3      3      2      2

flute      muta piccolo      Cl. in Bb      B. Cl.      Fgt.

Tpt.      Tbn.      piano      violin I      violin 2      viola      cello      d.bass

8

mp      pp      f      mf      pppp

p      pp      f      pp      mp      ppp

arco      p      pp      f      pp      mp      ppp

legno      II      III      mp      pp      f      pp      mp      ppp

II      mp      pp      f      pp      mp      ppp

I      III      mf      pp      f

1      I

picc

Cl. in Bb

B. Cl

Fgt.

Tpt.

Tbn.

piano

violin I

violin 2

viola

cello

d.bass

**4**

**2**

**1**

**3**

**1**

picc

Cl. in Bb

B. Cl.

Fgt.

Tpt.

Tbn.

piano

violin I

violin 2

viola

cello

d.bass

**2**

**3**

**4**

**1**

*rough multiphonic  
select sung pitch accordingly*

**4**

picc

Cl. in Bb

B. Cl.

Fgt.

1

2

3

muta flute in c

fff

ppp

mp

f

p

mf

mf

mp

Tpt.

Tbn.

pp

mf

tch!

sh!

>

>

piano

mf

mf

8 >

8 .>

8

mp

violin I

violin 2

viola

cello

d.bass

mf <f

mf

mf

p

pp

mf

pizz

crine

mf

pp

mf

I

III

II

III

IV

I

III

I

mf

pp

mf

mf

mf

mf

mp

B

~45

**3**

flute

Cl. in Bb

B. Cl.

Fgt.

Tpt.

Tbn.

piano

violin I

violin 2

viola

cello

d.bass

**3**

**2**

**1**

**8**

**8**

**8**

**III.**

**mf**

**pp**

**mf**

**mp**

**f**

**ff**

**p**

**mf**

**mp**

**pizz**

**legno bat**

**mf**

**crine**

**III.**

**mf**

**pp**

**I**

**mf**

**mp**

**I**

**f**

**p**

**6**

1      4      3      2

flute      Cl. in Bb      B. Cl.      Fgt.

Tpt.      Tbn.

piano

violin I      violin 2      viola      cello      d.bass

1      3      1      2      4

flute      ppp      f      p      >

Cl. in Bb      p      >

B. Cl      mp      f p      >      mf

Fgt.      >

Tpt.      >

Tbn.      f pp      pp      mp

piano      mf      p      >      >

violin I      f      p      >      mp

violin 2      ppp      f      p      I

viola      >      >      III      II

cello      pp      mf      pp      I

d.bass      I tr.      II      mp      III

2      2      3      3      2

flute      p mf pp

Cl. in Bb      ♯ ♭

B. Cl      ppp

Fgt.      ♯ ♭

Tpt.      pp

Tbn.      p

piano      ♯ ♭ pppp mf f pp mp

violin I      II pp mp pp

violin 2      pp mp pp f

viola      pp f

cello      p II III mp pp

d.bass      I II III mf

2 2 2 2 3 2

flute  
Cl. in Bb  
B. Cl.  
Fgt.

Tpt.  
Tbn.

piano

violin I  
violin 2  
viola  
cello  
d.bass

C

~50

2 2 1 2 2 1 3

flute

Cl. in Bb

B. Cl.

Fgt.

Tpt.

Tbn.

piano

violin I

violin 2

viola

cello

d.bass

electronics s1

s2

This musical score page, labeled 'C', contains eleven measures of music. The instrumentation includes flute, clarinet in Bb, bass clarinet (B. Cl.), fortepiano (Fgt.), trumpet (Tpt.), tuba (Tbn.), violin 1, violin 2, viola, cello, double bass (d.bass), and electronic components s1 and s2. The score begins with a dynamic of approximately 50. The first measure features sustained notes from the piano and bassoon. Measures 2 through 4 introduce woodwind entries with dynamics such as mezzo-forte (mf) and piano (p). Measures 5 through 7 continue with woodwind patterns, including a forte dynamic (f) and a piano dynamic (pp). Measures 8 through 11 conclude the section with sustained notes and dynamic changes, including a final forte entry by the piano in measure 11.

2      1      3      1      3      3

flute      ppp

Cl. in Bb      ppp

B. Cl      ppp

Fgt.      pp

Tpt.      mf → pp

Tbn.      mf → pp

piano      mf      8      15      8      mf

violin I      >      mf → pp      mf → p

violin 2      ppp

viola      ppp

cello      III → mp → ppp      IV → mf → p

d.bass      ppp      ff → pp/f

electronics      s3      s4      s5

3 3 1 3 1 2

flute  
Cl. in Bb  
B. Cl.  
Fgt.  
Tpt.  
Tbn.  
piano  
violin I  
violin 2  
viola  
cello  
d.bass  
electronics

Measure 3: Dynamics include *mf*, *pp*, *p*, *ppp*, *p*, *mp*, *p*, *mf*, *p*, *mf*, *mf*, *mf*. Measure 4: Dynamics include *f*, *p*, *mf*, *ff*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*. Measure 5: Dynamics include *mf*, *ffff*, *mf*, *ffff*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*. Measure 6: Dynamics include *p*, *mf*, *mf*. Measure 7: Dynamics include *pppp*, *pppp*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*, *mf*.

**s6** **s7**

1      3      2      1      2      2      2

flute      Cl. in Bb      B. Cl.      Fgt.      Tpt.      Tbn.

piano

8      8

mf      mf      p      mf      p      mf      f      f/mp      mp

[3"-7"] → B1. piano solo

8      8

mf      mf      p      legno      legno      crine      pp

mf      p      mp      mp      mp      mp      mp      mf

mf      ppp      p      mp      mp      pizz      pizz

mf      f      > . > . >      IV      mf      mf      mf      pp

mf      mf      > . > . >      mp      mp      arco      crine

mf      mf      ppp      p      pizz      legno      .. >

mf      f      p      pizz      pizz      p      mf      pp

mf      mf      mf      mf      mf      mf      mf

s8      s9      s10

4      1      2      2      1      3

flute      f mp      f / pp mp      mf p ppp mp      mf pp p

Cl. in Bb      f mp p f pp mf      ppp mf / p mp      mf pp p

B. Cl      pp p pp mf      mf p p

Fgt.      pp mf

Tpt.      mf pp f pp pp mf

Tbn.      mf pp f pp pp mf

violin I      f p f mf p legno crine pizz mp pp f p pp mf

violin 2      f p f mf mp pp mp pp f p pp mf

viola      pp mf mp pp mp pp f

cello      pp mf III p pizz mp pp mp pp mf

d.bass      III mp pizz mp pp mp pp mf

electronics s11

s12

**D**

~55

flute  
Cl. in Bb  
B. Cl.  
Fgt.

Tpt.  
Tbn.

violin I  
violin 2  
viola  
cello  
d.bass  
electronics

3 1 2 2 1 4

8"-12"

C. Contrabass solo

s13 s14

2 2 2 1 2 3 1

flute  
Cl. in Bb  
B. Cl.  
Fgt.  
Tpt.  
Tbn.  
violin I  
violin 2  
viola  
cello  
electronics

**System 1:**  
flute: f/mp, mf, mp, mf/p, p, mf  
Cl. in Bb: f, mp, f, mf  
B. Cl.: p, mf  
Fgt.: mp  
Tpt.: pp, mf  
Tbn.: mp  
violin I: mp, legno, pp, legno, p  
violin 2: mf, legno, pp, legno, mp  
viola: mf, pizz I, mf, IV, mf, arco, f  
cello: pp, mf, p, f, ppp, mf  
electronics: s15

**System 2:**  
flute: f, mf, p, f, mf  
Cl. in Bb: f, mf  
B. Cl.: mf  
Fgt.: mf  
Tpt.: pp, mf, pp, mf  
Tbn.: mp  
violin I: mp, legno, pp, legno, p  
violin 2: mf, legno, pp, legno, mp  
viola: mf, pizz I, mf, IV, mf, arco, f  
cello: pp, mf, p, f, ppp, mf  
electronics: s16

~45

Musical score for measures 2 through 3. The score includes parts for flute, Clarinet in Bb, Bass Clarinet, Fagot, Trumpet, Trombone, Violin I, Violin II, Viola, Cello, and Electronics. Measure 2 starts with flute at *mf*, followed by Clarinet in Bb at *mf/p*, Bass Clarinet at *mp*, Fagot at *mf*, Trumpet at *p*, Trombone at *ppp*, Violin I at *mf*, Violin II at *fp*, Viola at *ffff*, Cello at *mf*, and Electronics at *mf*. Measure 3 begins with Bass Clarinet at *p*, Fagot at *p*, Trumpet at *p/ff*, Trombone at *ff*, Violin I at *mf*, Violin II at *ffff*, Viola at *ffff*, Cello at *ff*, and Electronics at *ff*.

Musical score for measures 4 through 5. The score includes parts for Trumpet, Trombone, Violin I, Violin II, Viola, Cello, and Electronics. Measure 4 starts with Trumpet at *mf*, Trombone at *mf*, Violin I at *mf*, Violin II at *p*, Viola at *ffff*, Cello at *ffff*, and Electronics at *ffff*. Measure 5 begins with Trombone at *p*, Violin I at *ffff*, Violin II at *ffff*, Viola at *ffff*, Cello at *ffff*, and Electronics at *ffff*.

Musical score for measures 6 through 7. The score includes parts for Violin I, Violin II, Viola, Cello, and Electronics. Measure 6 starts with Violin I at *ffff*, Violin II at *ffff*, Viola at *ffff*, Cello at *ffff*, and Electronics at *ffff*. Measure 7 begins with Violin I at *ffff*, Violin II at *ffff*, Viola at *ffff*, Cello at *ffff*, and Electronics at *ffff*.

electronics

s17

3

3

1 3

1 2

flute

Cl. in Bb

B. Cl.

Fgt.

Tpt.

Tbn.

violin I

violin 2

viola

cello

electronics

**System 1:**

- Flute:** Dynamics: mf, p, f/mf, p, ff. Articulations: slurs, grace notes.
- Clarinet in Bb:** Dynamics: mp, f. Articulations: slurs, grace notes.
- Bassoon:** Dynamics: mp, f. Articulations: slurs, grace notes.
- Forteپiano:** Dynamics: f, mp, ff. Articulations: slurs, grace notes.
- Trumpet:** Dynamics: mp. Articulations: slurs, grace notes.
- Tuba:** Dynamics: mp, ff. Articulations: slurs, grace notes.
- Violin I:** Dynamics: legno (mf), legno bat (p). Articulations: slurs, grace notes.
- Violin II:** Dynamics: III (ff), pp. Articulations: slurs, grace notes.
- Viola:** Dynamics: mp, ff. Articulations: slurs, grace notes.
- Cello:** Dynamics: ff, pp. Articulations: slurs, grace notes.

**System 2:**

- Flute:** Dynamics: ff. Articulations: slurs, grace notes.
- Clarinet in Bb:** Dynamics: ff. Articulations: slurs, grace notes.
- Bassoon:** Dynamics: ff. Articulations: slurs, grace notes.
- Forteپiano:** Dynamics: ff. Articulations: slurs, grace notes.
- Trumpet:** Dynamics: ff. Articulations: slurs, grace notes.
- Tuba:** Dynamics: ff. Articulations: slurs, grace notes.
- Violin I:** Dynamics: crine (III), III (ff), ff. Articulations: slurs, grace notes.
- Violin II:** Dynamics: ff. Articulations: slurs, grace notes.
- Viola:** Dynamics: ff. Articulations: slurs, grace notes.
- Cello:** Dynamics: ff. Articulations: slurs, grace notes.

**System 3:**

- Flute:** Dynamics: ff. Articulations: slurs, grace notes.
- Clarinet in Bb:** Dynamics: ff. Articulations: slurs, grace notes.
- Bassoon:** Dynamics: ff. Articulations: slurs, grace notes.
- Forteپiano:** Dynamics: ff. Articulations: slurs, grace notes.
- Trumpet:** Dynamics: ff. Articulations: slurs, grace notes.
- Tuba:** Dynamics: ff. Articulations: slurs, grace notes.
- Violin I:** Dynamics: ff. Articulations: slurs, grace notes.
- Violin II:** Dynamics: ff. Articulations: slurs, grace notes.
- Viola:** Dynamics: ff. Articulations: slurs, grace notes.
- Cello:** Dynamics: ff. Articulations: slurs, grace notes.

**System 4:**

- Flute:** Dynamics: ff. Articulations: slurs, grace notes.
- Clarinet in Bb:** Dynamics: ff. Articulations: slurs, grace notes.
- Bassoon:** Dynamics: ff. Articulations: slurs, grace notes.
- Forteپiano:** Dynamics: ff. Articulations: slurs, grace notes.
- Trumpet:** Dynamics: ff. Articulations: slurs, grace notes.
- Tuba:** Dynamics: ff. Articulations: slurs, grace notes.
- Violin I:** Dynamics: ff. Articulations: slurs, grace notes.
- Violin II:** Dynamics: ff. Articulations: slurs, grace notes.
- Viola:** Dynamics: ff. Articulations: slurs, grace notes.
- Cello:** Dynamics: ff. Articulations: slurs, grace notes.

**Bottom:**

- electronics:** s18, s19, s20, s21

3      1      2      2      1      2      2

flute      f > p / mf      p / mf      mf      pp / mp

Cl. in Bb      mf      f / p      f / pp / mf / pp      pp / mf

B. Cl      mf      > tr.      p / pp      pp / mf / pp

Fgt.      ppp / f / mf      mf

Tpt.

Tbn.      p / mp / ppp      mf / p / ppp

**D. Trombone solo**

violin I      > / p / pp / mp / pp / mp

violin 2      mp / pp / p / mp / pp / mp

viola      p / mf / p / pp / mf / ppp / mp

cello IV      mf / f / pp / ppp / mf / pp / mp

electronics s22      s23      s24      s25

## E

~35

Flute: 2, 2, 1, 2, >, pp, mf, p, mf, p, mf, >, f, f/mf, p, ppp.

Cl. in Bb: p, mf, p, p, mf, p, p, mf, pp, mp.

B. Cl.: pp, mf, pp, pp, mf, pp.

Fgt.: pp, mf, pp, pp, mf, pp.

Tpt.: p, pp, mf, pp.

Violin I: pp, mp, p, mp, p, mf, mp, >, >, >.

Violin 2: pp, mp, ppp, mp, ppp, pp, mp, ppp, mp, pp.

Viola: ppp, mf, ppp, pp, mp, pp, mf, p, mp.

Cello: pp, mp, ppp, mf, ppp, pp, mp, pp, mf, pp, mp.

electronics: s26, s26, s27

2      1      3      1      3      3

flute  
Cl. in Bb  
Cello  
Tpt.  
violin I  
violin 2  
viola  
cello

electronics

s28      s29      s30