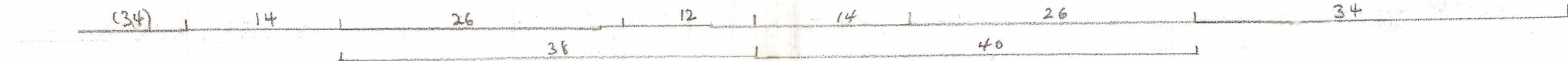
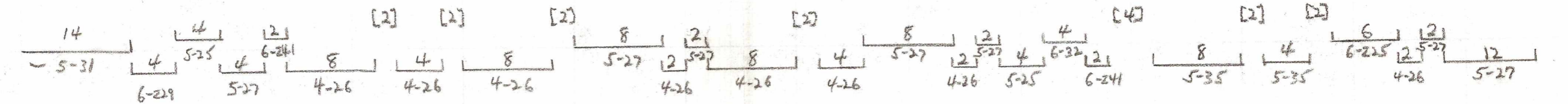
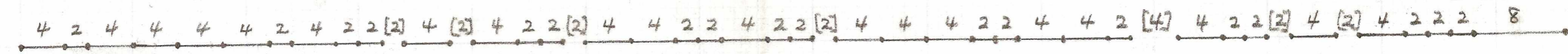
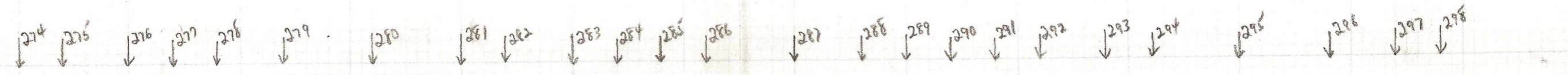
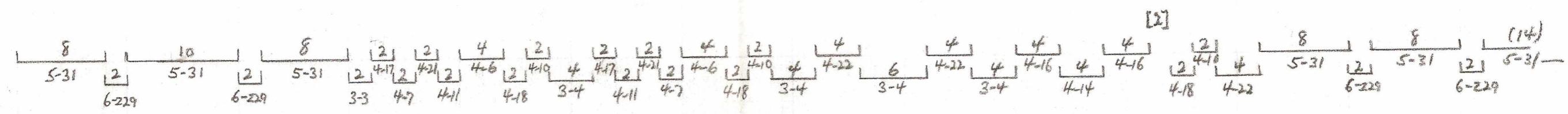
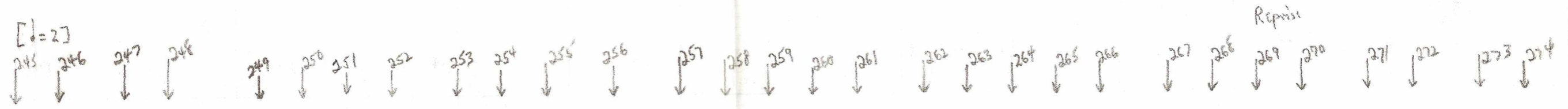


Stravinsky, Symphonies of Winds,  
Final Choral (1920)



Stravinsky, Symphonie d'instruments à vent (1920) - HORACE

1-13-1  
m. 24  
w. m. 11

♩ = 92

185 in 1947 version

O Horns (4-18)

4-11 {0,2,4,5}

(A) in mv. Thu. 4-10 horn

5-31  
{11,2,5,7,8}

2-29 6-22  
{11,0,2,5,7,8}

25-31 {11,0,2,5,8}

28 {11,2,5,7,8}

3-3 4-17 4-7 4-21 4-11 4-6 4-18 (3-2) 3-4 4-17 4-11 4-21 4-7  
{0,2,4,7} {4,5,8,9} {0,2,4,5} {0,1,2,7} {9,10,3,4} {2,5,6,7} {6,7,9,11} {2,3,4}

{3,5,7,9}

{5,7,9,11}

4-6 4-18 4-10 (3-2) 3-4 4-22 3-4 4-22 3-4 4-16 4-14 4-16 4-18 4-10 4-22 3-7 {9,11,2} 5-31 6-29 5-31

{2,3,4,9} {9,10,3,4} {9,10,23} {9,10,23}

{7,9,11,2}

{4,5,9,11} {4,8,9,11} {5,7,11,0} {9,10,3,4} (3-2) {9,11,0,23} {7,9,11,2}

3-5 {3,4,9}

3-5 {4,7,11}

{9 11 0 2} 4-10

5-29 {9,10,2,4,5}

(last chord in piece)

NB. Change in 1947 mv. (last 11 notes)

{11,0,2,4,7}

Stravinsky, Symphonies d'instruments à vent  
P. 2, piano reduction, (bars 17-20)

6-30 / 7-34 / 6-33 / 5-219 / 5-32 /      6-33 / 5-20 /      6-30

Subsets of 8-23 (the "diatonic" octad)

7	14.2 23.2 29.2 35.2
6	8.1 9.2 12.2 18.2 25.4 26.2 32.3 33.4 38.1 40.2 46.2 47.2 50.1
5	2.2 5.2 7.2 9.2 11.2 12.2 14.2 19.2 20.4 23.6 24.4 25.4 27.6 29.4 32.2 34.2 35.4 36.2 38.2
4	1.1 2.2 4.2 5.2 6.2 8.2 9.1 10.3 11.6 13.4 14.6 15.2 16.4 17.1 18.2 20.3 21.2 22.8 23.5 26.4 27.4 29.4
3	1.2 2.6 3.2 4.6 5.6 6.4 7.10 8.4 9.6 10.2 11.8

Comments:

1. Four seven-note subsets are each represented twice. Of these, 7-35 ("the major scale") is the most familiar.
2. Compared to 8-28, 8-23 is very rich in hexachord types, with thirteen represented. Sets 6-32 and 6-33 are familiar as major and minor hexachords, respectively.
3. Two of the five-note subsets are represented six times: 5-23 and 5-27. Those familiar in diatonic tonal music are 5-34 ("dominant ninth chord") and 5-35 ("pentatonic scale").
4. Set 4-22 (0,2,4,7) is the most characteristic tetrachord of 8-23, although 4-11 and 4-14 both occur six times.
5. Of the trichords, only 3-12 (the "augmented triad") is excluded from 8-23.

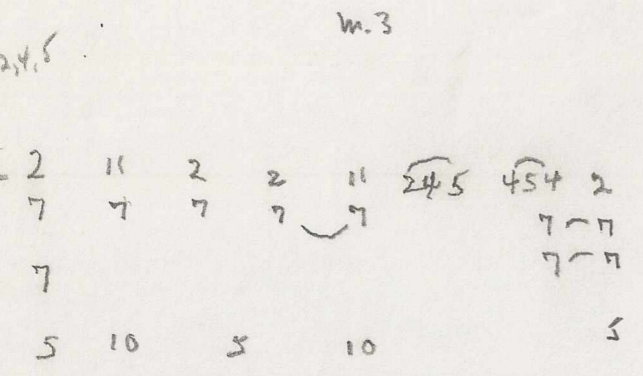
Intersection of 8-28 and 8-23 Subsets

6. Z50
5. 19, 25, 32
4. 9, 10, 13, Z15, 17, 18, 26, 27, Z29
3. 2, 3, 5, 7, 8, 10, 11

Stravinsky, Symphonie of Winds (1926)

RITORNELLO

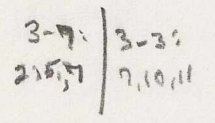
4-13: 11, 2, 4, 5



5-1/3

5-32: {2, 5, 9, 10, 11}

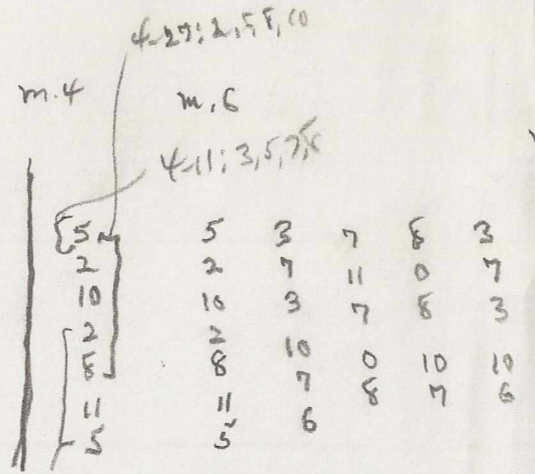
6-250 w/7



common  
4-18:  
10, 11, 2, 5

Main:

6-229  
5-31



4-28: 5, 8, 11, 2

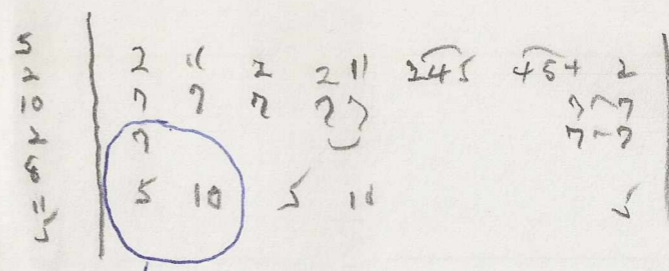
5-31:

{2, 5, 8, 10, 11}

4-17: 4-7: 9, 11, 4, 5

3, 6, 7, 11

m. 8 m. 9

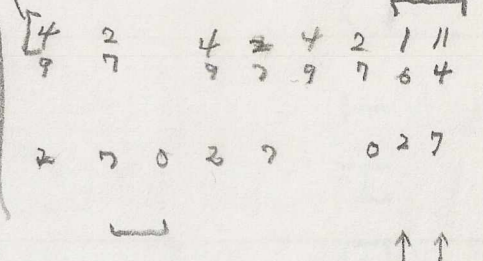


5-31

5-32 on 6 d/m

37

4-10: 11, 1, 2, 4



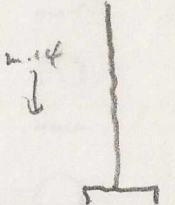
3-9:  
0, 2, 7  
2, 7, 9

4-23:  
2, 4, 7, 9

5-35:  
7, 9, 0, 2, 4

6-247

6-225:  
11, 1, 2, 4, 6



3-4: 3-11  
1, 2, 6 | 4, 7, 11

m.15  
 5  
 2  
 10  
 2  
 8  
 11  
 4  
 ↑  
 5-31:  
 2,5,8,10,11

m.18  
 3 7  
 10 3  
 7 10  
 1 3  
 8 8  
 11 1  
 5 5  
 ↑  
 6-30:  
 8,10,11,2,4,5  
 (Petrovskaya  
 Chape)

m.19  
 5 9 10 3 5  
 1 4 0 10 2  
 6 1 8 2 10  
 9 4 3 9 10  
 1 10 10 10 8  
 6 6 2 5 4  
 ↑  
 6-30:  
 2,4,5,8,10,11

m.21  
 5 0 3 10 10 6 6  
 10 5 5 10 5 3 1  
 10 6 5 10 8 4 2  
 3-4:  
 5,6,10  
 4-6:  
 5,6,10,11  
 3-7:  
 3,5,8  
 3-5:  
 10,3,4

5-32: 1,4,6,9,10  
 6-33: 8,10,9,2,5  
 5-20: 2,3,5,9,10  
 6-33: 3,5,6,8,10,0  
 8-11: (9,9,11,0)  
 3-4: 1,2,6

m.23  
 5-23: 6,8,10,11,1 (faraway m.28)  
 m.25  
 m.26

m.23  
 8 6 8 6 8 10 8 10 8 6 8 11 10 8 6 8 10 8 10 8 6 8 11 10 8 6  
 1 1 1 11 1 2 3 1 11 9 11 1 3 9  
 2 4 1 0 2 4 1 0 10 0 2 4 10  
 ? 6-1: 11,9,1,2,3,4  
 ? 8-1: (5,6,7,8)

melodii kina possibly "cumulative" - see entrance of A below m. 36

m.27

8	6	8	10	8	10	8	10	8	10
11	1	3							
0	2	2							

m.18

6	8	10	8	10	8	10
11	1	3				
0	2	2				

(as before)

m.29

6	6
4	4
11	2
5	7
↑	↑

4-6: {4,5,6,11}

4-13: 1,4,6,7

5-226: 11,2,4,5,6

~~11~~  
~~?~~

7-236:

{8,9,10,0,3}

m.32

6	6
4	4
11	2
5	7
↑	↑

? 4-2: 2,4,5,6

7-236

{8,9,10,0,3}

? 5-3: 1,2,4,5,8

m.36

6	6
4	4
11	2
5	7
↑	↑

4-14: 4,6,7,11

3-7: 1,4,6

10	1	3	4	3	4	3	2	10	1
6				6				6	6
9								9	6
									4

m.38

~~3-1: 1,2,4,6,10~~

6-250: 1,3,4,6,9,10

(Le Roi des Etoiles)

m. 39-End

DEVELOPMENT

m. 43

4-11: 4, 6, 8, 9  
(same as optical)  
↓

4	8	9	4	6
8	0	1	8	11
4	8	9	4	6
11	8	11	9	4
8	9	8	6	1

1	1	11	9
---	---	----	---

6	4
7	5

3-6: 9, 11, 1

3-7: 6, 9, 11

11	11	11
6	6	6
11	9	11

11

9	7	11	0	7
---	---	----	---	---

0	11	2	4	11
---	----	---	---	----

9	7	11	0	7
---	---	----	---	---

? 8-24  
(8, 10, 0, 2, 3)

4-11: 7, 9, 11, 0

t = 3

3-11 4-7 4-11 4-11 4-6  
4, 8, 11 8, 9, 0, 1 / 8, 9, 11, 1 / 4, 6, 8, 9 / 4, 5, 6, 11

↓  
ITS

9-35: (1, 3, 5, 8, 10)  
"G-majr"



(39) Piano Reduction

(42)

a circular permutation of the ordered T, which would have been 7-11-0-7-9

Example of association of rhythmic pattern and order relations

4-11: [4, 6, 8, 9]

4-11: [7, 9, 11, 0]

T<sub>3</sub>

Equivalent sets are given same rhythm and a clearly structured order relation

1947 Revision (R1041)

Same rhythmic relation in the revision, even though there is rebaring and change of meter signature. [General: meter is secondary and notational feature.]

(161) Piano Reduction (1947 Revision at R44) *use this*

(167) check 1947 score before using

4-11: [5, 6, 8, 10] Components rhythmically distinct 1/2/4+

4-10: [0, 2, 3, 5] *Now associated rhythmically w/ 4-11*

(173) Creation of larger structures

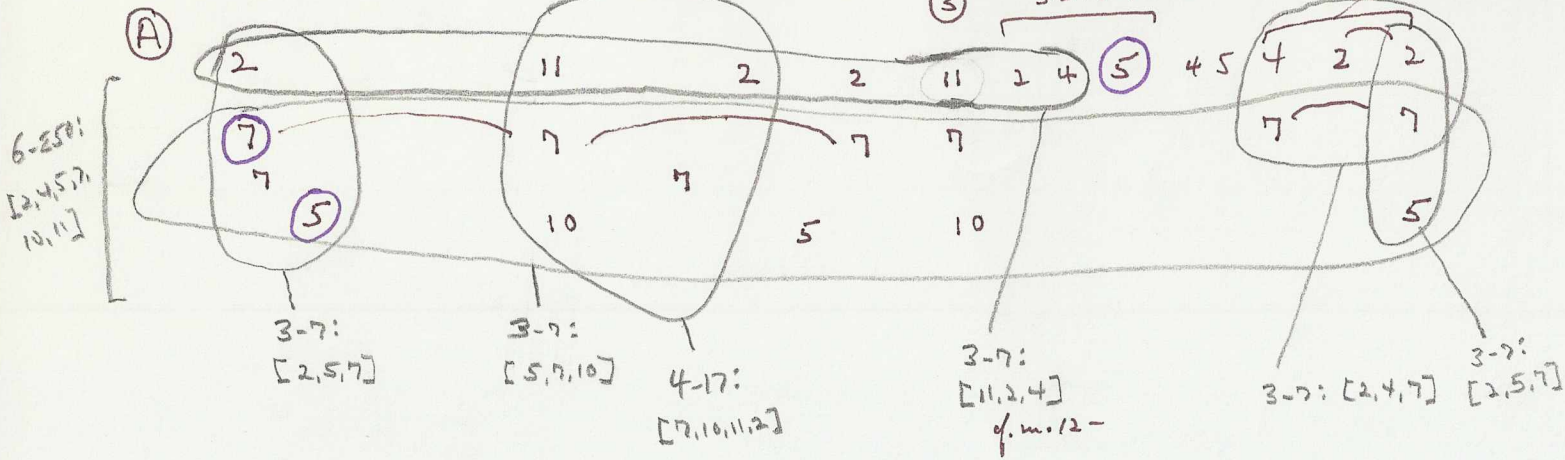
4-11: [5, 6, 8, 10]

4-3: [4, 5, 7, 8]

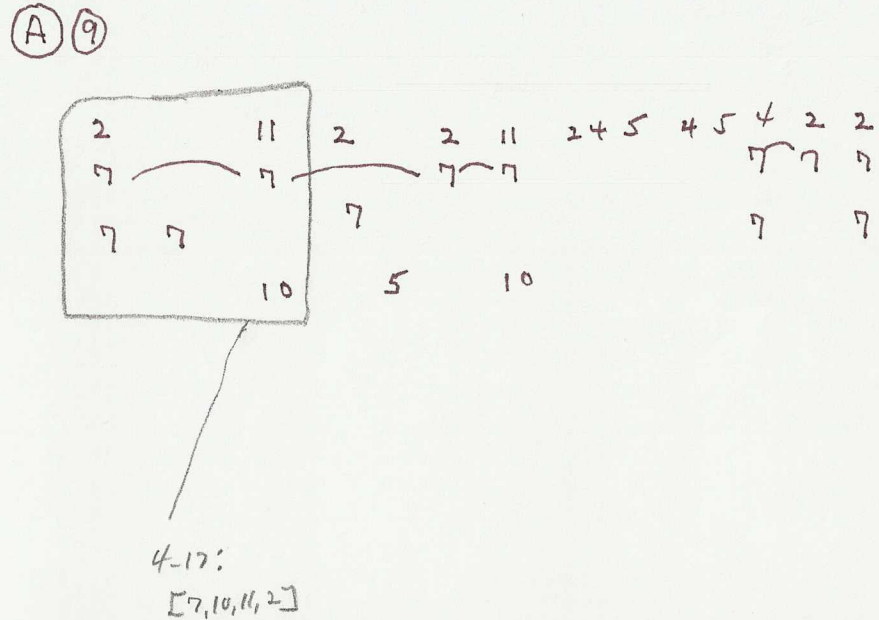
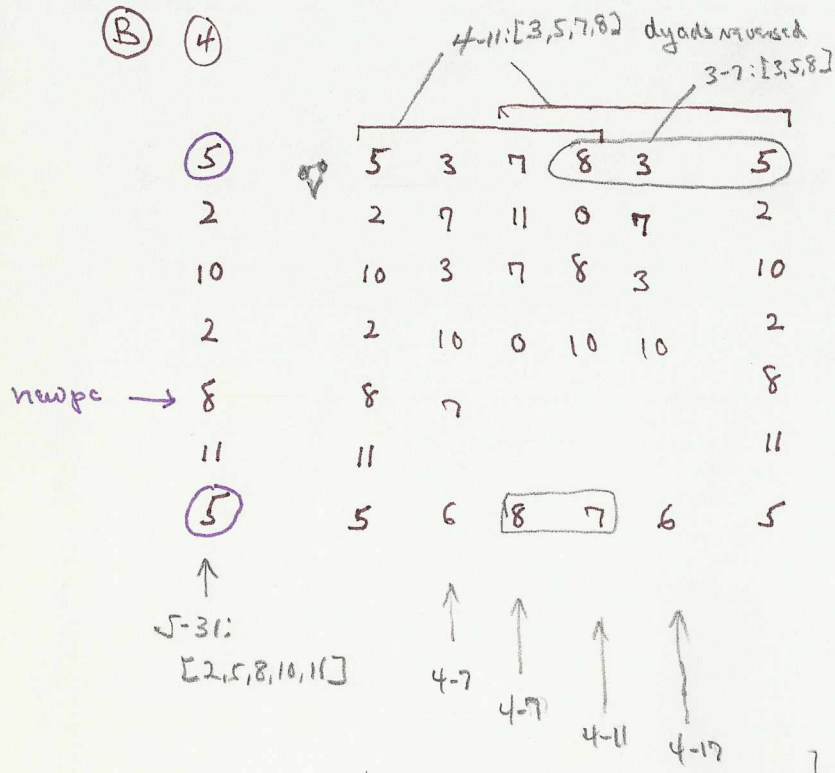
Stravinsky  
Symphonies of Winds  
1920 Piano Score

Octa (0,3,6,9): [1,2,4,5,7,8,10,11]

A.F. ①



All four forms of 3-7 in 6-ZB are stated  
[6-250 ≠ 5-31]



⊕ lateral sets determine U.L.

H.B. Symmetries in soprano & bass

all-9-11: (1,4,9)

(C) (12)

m.3

4-10: [11, 1, 2, 4]  
 4-10: [4, 6, 7, 9] (T<sub>5</sub>)

3-2: [11, 1, 2]

(B) (15)  
 4-23: [11, 1, 4, 6]

4	2	4	2	4	2	1	11
9	7	9	7	9	7	6	4
2	7	0	2	7	0	2	7

3-9: [0, 2, 7]

4-23: [2, 4, 7, 9]  
 → 3-2 x

8-23: [11, 0, 1, 2, 4, 6, 7, 9]  
 (3, 5, 8, 10)

Ob.

3-7: [5, 7, 10] from opening  
 4-11: [5, 7, 9, 10] T<sub>2</sub> of m. 6-8  
 Symmetrically positioned w/ 2, 5

5	3	7	5	9	10	3	5
2	10	3	[1]	4	0	10	2
2	7	10	8	1	8	2	10
8	1	3	5	4	3	9	2
11	8	8	9	10	10	9	8
5	11	1	1	1	2	10	11
	5	5	6	6	5	5	

(j=3) as before

4-23: [3, 5, 8, 10]

6-30: [2, 4, 5, 8, 10, 11]  
 octa (0, 3, 6, 9)

first bass F<sup>b</sup> (first in m. 16 in 1922 piano score)

Symphonies of Wind Instruments  
Final Chorale (repetitions omitted)

**EXAMPLE** (red arrow)

**EXAMPLE (W/VERTICAL)** (red arrow)

4-7: [7,8,11,0] → 4-11: [0,2,4,5] (251) → 4-7: [4,5,8,9] (253) → 4-10: [0,2,3,5] → 4-11: [6,7,9,11] → 4-11: [2,4,6,7] T<sub>2</sub> → 4-10: [9,11,0,2] → 4-22: [2,4,6,9] → 4-10: [9,11,0,2] (260) → 4-11: [0,2,4,5] as in descant of opening → 4-14: [9,11,0,2] → 268 (End of section)

2	0	2	2	0	4	5	0	2	9	9	2	6	7	2	4	9	9	9	9	9	9	11	11	0	9	9			
11	8	11	6	4	8	9	4	7	4	0	2	6	9	11	6	9	4	0	2	2	2	2	2	4	4	5	4	0	2
7	7	7	2	0	4	5	0	2	0	11	9	2	6	7	2	4	0	11	9	11	9	11	9	9	9	11	11	11	11
11	11	11	5	7	9	7	5	0	3	2	1	9	11	9	7	2	3	2	1	7	1	7	1	4	9	11	3	2	7
5	5	5	2	3	5	3	2	1				5	7	5	3	3								5	8				
8	8	8																											
2	2	2	4-11	4-21	4-11	4-21	4-11	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21	4-21

4-22: [0,2,4,7] in counterpoint w/4-11 in descant

4-28

Change to 5 voices

5-31: [11,2,5,7,8]

6-229: [11,0,2,5,7,8]

3-3

4-17

4-7

4-21

4-11 (as in upper voices)

4-6

4-18

4-10

3-4

4-11

4-21

4-7

4-6 (T<sub>2</sub>)

4-18

4-10

3-4

4-22

3-4

4-22

3-4

4-16

4-14

4-16

4-18

4-10

4-22

\* 6-229: [11,0,2,5,7,8]

10-1: (10, 11)

7-2: (5,6,7,8,10)

8-11: (8,10,0,1)

8-11: (5,6,8,10)

8-27: (10,0,3,6)

7-27: (5,6,8,10,1)

IT<sub>6</sub>

\* Extension from octatonic collection by complementation

\*\* Enlarged from  $\downarrow$  to  $\downarrow$  in 1945 revision

21

4-23: [10, 0, 3, 5]

5	0	3	10	10	8	6
10	5	5	10	5	3	1
10	6	5	10	8	4	2

9-6: [7, 9, 11]

4-11: [5, 6, 8, 10]

IT<sub>3</sub> of previous 4-11

Seepiano score

25

8	6	8	6	8	10	8	10	8	6	8	11	10	8	6	8
1	3	1	11	1		3	1	11	9						
2	4	1	0	2		4	1	0	10						

26

10 8 10 8

11

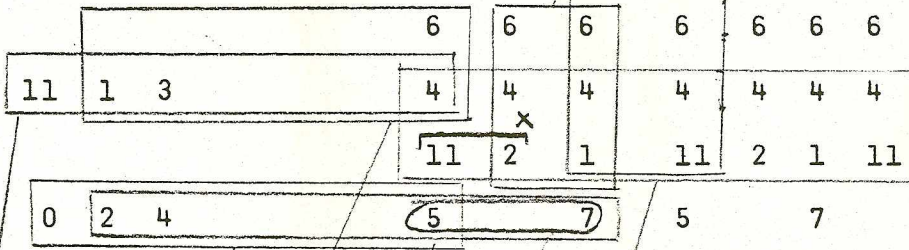
0

Symphonies of Winds

m. 28

m. 29

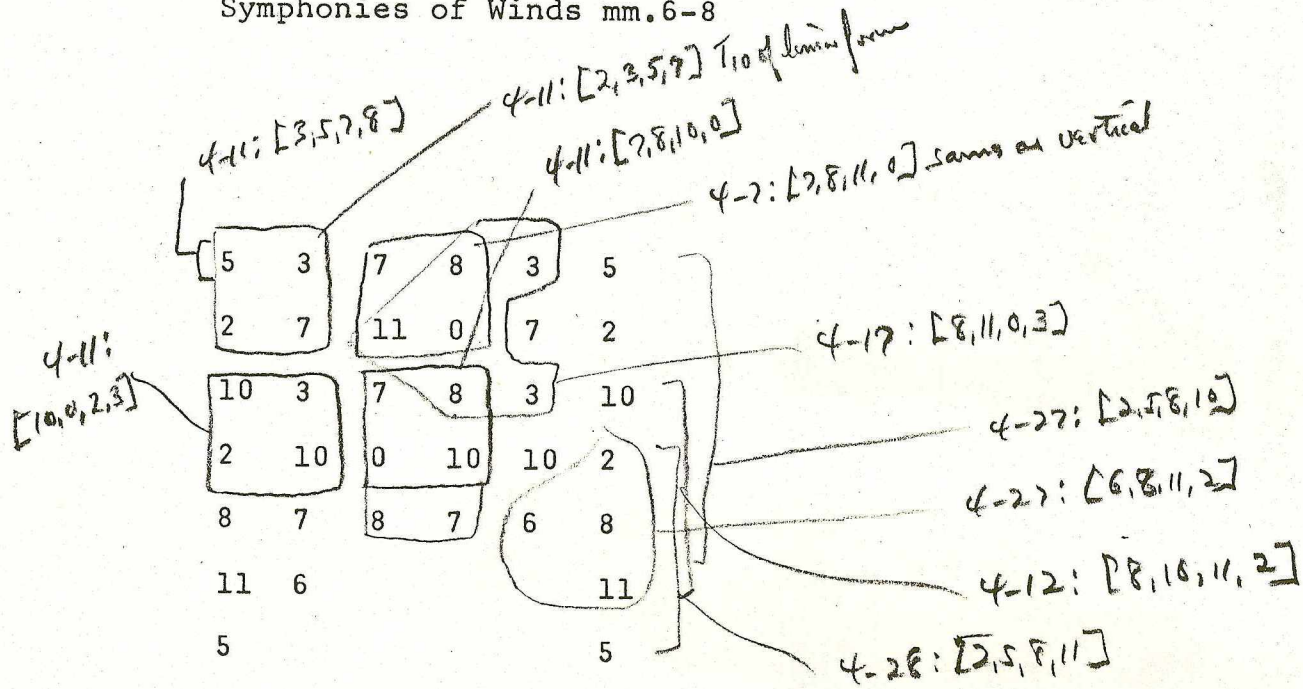
4-11: [1,2,4,6] 4-23: [11,1,4,6]



4-11: [1,1,3,4]  $T_1$   
 4-11: [0,2,4,5]  
 4-10: [1,3,4,6]  $T_1$   
 4-10: [2,4,5,7]  $T_9$   
 4-10: [11,1,2,4] as in m. 12

x first dyad in  
 descent, m. 1  
 y basic dyad  
 in opening music

Symphonies of Winds mm.6-8



$\uparrow$   
 $4-17: [3, 6, 7, 10]$

$\uparrow$   
 $4-17: [3, 6, 7, 10]$

No pc 1, 4, 9

Handwritten musical notation on two staves. The top staff is in treble clef and the bottom staff is in bass clef. Both staves have a key signature of two flats (B-flat and E-flat). The notation includes quarter notes, eighth notes, and rests, with various accidentals (sharps, flats, and naturals) indicating specific pitch bends or corrections.

Handwritten musical score for wind instruments. The score is written on four staves, each with a different instrument label:

- Fl.** (Flute): Treble clef, starting with a forte (*f*) dynamic. The notation includes eighth and sixteenth notes, some beamed together.
- Cl.** (Clarinet): Treble clef, starting with a forte (*f*) dynamic. The notation includes eighth and sixteenth notes, some beamed together.
- Tpt** (Trumpet): Treble clef, starting with a forte (*f*) dynamic. The notation includes eighth and sixteenth notes, some beamed together.
- Tbn** (Trombone): Bass clef, starting with a forte (*f*) dynamic. The notation includes eighth and sixteenth notes, some beamed together.

Additional instruments and markings:

- Ob. E.H.** (Oboe): Treble clef, starting with a forte (*f*) dynamic. The notation includes eighth and sixteenth notes, some beamed together.
- Hr.** (Horn): Treble clef, starting with a forte (*f*) dynamic. The notation includes eighth and sixteenth notes, some beamed together.
- Hr. Tuba** (Horn/Tuba): Treble clef, starting with a forte (*f*) dynamic. The notation includes eighth and sixteenth notes, some beamed together.
- Tutti**: A marking indicating a change in dynamics or performance style, appearing above the Tpt and Hr. Tuba staves.

A series of empty musical staves, consisting of four systems of two staves each, intended for additional instruments or parts.



CARRALE: RHYTHMIC FORMS

A                      A                      B

Attack ptn

2 2 1
2 2 1
1 1 1 2

Duration

total 14

18

Ex. 13

62

64

1) ~~grouping~~ - ~~Board~~

2) Instruments

83

3) tetrachords - complete

0 2 4 5      9 11 0 2  
2 4 6 7

4) dyads and tetrachords

~~a-b~~ c-d d-d

D C E/F C D

D-E

non abstract  
(used)

5) Symmetries

and Repetitions of other kinds

Retrograde - 1 2 7 9 = R of 1 2 4 5  
[beginning of final section]

6) 1949 revision: meters changed, but not durations

overall pc

0 2 4 5 (6) 7 9 11

1 3 / 8 10 13  
0 2 6 7  
0 1 5 7

EX 13

Comments on example of rhythmic aspects of the upper voice

Most general:

The components of the four tetrachords have different durational "weights."

Note the preparation of A in m. 254 first with duration 8, then, in m. 258 with duration 14

Symmetries:

14 16 14

20 14 20

Many repetitions of large durations

m.279, shift to diatonic octad coincides with retrograde of rhythm of initial 5-31

C-D

The special dyad ~~C-D~~ has distinct rhythm quarter-half (D-C has quarter-quarter, \* except in m. 292

CHORALE (ORIGINAL MUSIC)

♩ = ♩ = 72 e sempre p - al' fine

242

Musical score for system 242, featuring treble and bass staves with complex rhythmic patterns and accidentals.

=RG5

in 1947 Rev.

247

Musical score for system 247, featuring treble and bass staves with complex rhythmic patterns and accidentals.

5-35: {1, 3, 5, 8, 10}

4-11: {0, 2, 4, 5}

5-31: {1, 2, 3, 7, 8}

6-229: {1, 0, 2, 5, 7, 8}

250

253

Musical score for system 253, featuring treble and bass staves with complex rhythmic patterns and accidentals.

with note 9 4-10 (m. 258) changed to d = 1947 m. 4-11: {5, 2, 4, 6, 7} T<sub>2</sub>

3-3 {2, 5, 6}

4-17 {0, 3, 4, 7}

? 4-7 {4, 5, 8, 9}

4-21 {3, 5, 7, 9, 7, 5, 0, 2, 4, 3}

begin 4-10: 9, 11, 0, 2

259

Musical score for system 259, featuring treble and bass staves with complex rhythmic patterns and accidentals.

Ob. E.H. 262

3-4

4-22: {5, 7, 9, 11, 2, 7}

3-4

4-22

3-4

4-16 {5, 4, 5, 9, 11}

4-14 {5, 4, 8, 9, 11}

4-16 {5, 5, 7, 11, 0, 2} IT4

267

Musical score for system 267, featuring treble and bass staves with complex rhythmic patterns and accidentals.

OCTATONIC final pc of 4-10 comes with repetition

4-18

4-10

4-22

5-31

6-229

5-31

(5-31)

6-229

5-31

274

Final upper voice 4-1: {11, 0, 2, 4} IT4 d (wist)

apostrophe used in 1942 no. Retrograde of rhythm 4-5-31

5-31

277

by extension both octa and dia. 6-229

5-25: {5, 4, 2, 9, 10, 0}

5-27: {11, 0, 2, 4, 7}

6-241 (12) {0, 2, 5, 6, 7, 8} (Diatonic by extension to complement - k)

4-26: {11, 2, 4, 7}

280

4-22

4-14

5-27: {9, 0, 2, 4, 5} = 4-26

4-26 5-27 {9, 0, 2, 4, 5}

286

288

4-26

4-26

5-27

4-26 5-27

5-25: {4, 7, 9, 10, 0}

NS. bass

292

Final trichord 11, 0, 2 refer to 4-10: {9, 11, 0, 2}

296

1942: d d d

4-26

5-27

5-27: {9, 0, 2, 4, 5}

5-27: {11, 0, 2, 4, 5}

6-32: {6, 9, 11, 0, 2, 4, 5} 6-241 {0, 2, 5, 6, 7, 8}

5-35: {7, 9, 11, 2, 4, 5} R.M.V.423 (5-35)

diatonic by extension {9, 11, 0, 2, 4, 5} 6-225 (47)

4-26 5-27 {9, 0, 2, 4, 5} Carantec-Garches 1920

1947 revision of Symphonies of Winds

As is the case with many of Stravinsky's revisions, there is <sup>some</sup> ~~substantial~~ rebarring and change of meter signature. This is ~~xxxx~~ true in the ~~xxxxxx~~ chorale (the original music) of the ~~Symphony~~ Symphonies of Winds as well. However, the original durations remain unchanged, here as ~~xx~~ elsewhere-- providing a demonstration that duration, ~~x~~ not meter, is primary.

Duration of the final harmony <sup>is</sup> ~~xxx~~ precisely measured to three halves in Rhythms in the Symphony of Winds--as exemplified by the Chorale-- <sup>1947</sup> rev. is intimately allied with instrumentation

In the ~~xx~~ chorale, horns are placed in opposition to trumpets, trombones, and contrabassoon

But, then w. enter, etc.

Durations of the constituent harmonies are shown on the proportional graph. Rhythmic structure of the long-range melodic lines is shown on a separate example

~~xxxx~~

[Discussion of the complex harmonic organization of the Chorale is deferred. The octatonic component is readily apparent, but even that is complex. E.g., the vertical 6-Z29 in m. 246 derives from two octatonic scales/collections: 11,0,2 from one and 5,7,8 from another (both forms of 3-2, which is a trichord of the melodically unfolded 4-11 in the upper part of the first section.] 6-Z29 is "octatonic" by complement-extension, e.g. by virtue of the set-complex relation which it bears to 6-Z50, which is octatonic.

Symphonies of Winds  
Chorale, contd.

Handwritten musical score for Chorale, contd. The score consists of three systems of music. The first system contains measures 269-276, the second system contains measures 283-288, and the third system contains measures 294-299. The notes are arranged in a grid format, with some notes circled or boxed. Above the notes are various annotations including measure numbers (e.g., 269, 276, 283, 286, 288, 294), intervallic structures (e.g., 4-11: [11, 0, 2, 4], 4-16: [7, 8, 0, 2]), and other musical notations. A red arrow points to measure 294 with the word "Example" written in red. At the top right, "Final cadences as examples" is written in red. Below the notes are vertical lines representing stems, with various annotations such as "5-31", "6-229", "5-31", "6-229", "5-31", "5-25", "5-27", "6-241", "10-2: (1,3)", "4-26", "5-27", "7-35", "4-26", "5-27", "4-26", "5-27", "4-26", "5-27", "5-25", "6-32", "6-241", "5-35", "6-225", "4-26", "5-27", "5-27", "FINAL CADENCE".

\*notated as unison

Not: pc1, pc3

Proportional graph--comments

Distinct durations assigned to constituent harmonies

Some retrogrades: see piano score annotations

Longest duration is final chord (changed in 1947 revision).

~~The attack-release partition is the same as the graph, since all attacks are simultaneous in all instruments~~

EX. 13

See separate example for durations of melodic upper-voice tetrachords

regular progression based up on  
expansion (multiplication)  
of basic cell  
Cardinal  
1x[2] 2x2 3x2 4x2



In Symphonies of Winds Chorale, since all instruments have simultaneous attacks, the A-R Partition is identical to the Proportional Graph.

Orchestration, rhythm and pc set structure are intimately allied in this work. E.g., 6-Z29 (a special hexachord) has unique rhythm in opening and is highlighted by entrance of horns

Form is largely determined by set structure and orchestration.

Symphonies of Winds mm.6-8

Handwritten notes and diagrams:

- $4-11: [3, 5, 7, 8]$
- $4-11: [2, 3, 5, 7]$   $T_{10}$  of linear form
- $4-11: [7, 8, 10, 0]$
- $4-2: [7, 8, 11, 0]$  same as vertical
- $4-17: [8, 11, 0, 3]$
- $4-27: [2, 5, 8, 10]$
- $4-27: [6, 8, 11, 2]$
- $4-12: [8, 10, 11, 2]$
- $4-28: [2, 5, 8, 11]$
- $4-11: [10, 0, 2, 3]$

5	3	7	8	3	5
2	7	11	0	7	2
10	3	7	8	3	10
2	10	0	10	10	2
8	7	8	7	6	8
11	6			11	
5				5	

↑  
4-17: [3, 6, 7, 10]

↑  
4-17: [3, 6, 7, 10]

No pc 1, 4, 9

SEE PROPORTIONAL  
GRAPH OF CHORALE  
IN FOLDER

The rhythm of the opening sets off the dyad F-G:

which is the nucleus of the trichord 3-7 and sums to 4-26 (a sonority in the chorale)

In mm. 12-14 (a strange departure), the components of two forms of 4-10 are made distinct:

Suggests both "directions" {11, 1, 2, 4} [o o (o o)]  
dyad E-D E-D-E 3-2: 11, 1, 2  
The repeated dyad E-D implies the conclusion above--the form of 4-10 in m. 3: (2, 4, 5, 7)

mm. 4-8: 5-31 distinguished rhythmically from the intervening tetrachords, by long-short, compared with even durations - but there is a rhythmic disjunction over the tetrachord 4-11: {3, 5, 7, 8}

etc. 5-31 4-11

mm. 23-28: Beautiful example of rhythmic distinctions between components as well as "amalgamation". Note also the effect of contour and the symmetries.

Dyad A<sup>b</sup>-G<sup>♯</sup> E<sup>b</sup>-A<sup>b</sup> G<sup>b</sup>-A<sup>b</sup> 4-10 4-11 4-23

\* mm. 29-32: The coincidence of attacks forms the secondary set 4-10.

NB. F-b omitted includes, since it has its own rhythmic pattern  
attack completion of 4-10  
i.e., rhythmic counterpoint  
Assemblea Bartok

Stravinsky, Symphonies of Winds  
 Chorale: Relations among tetrachords  
 in the upper voice

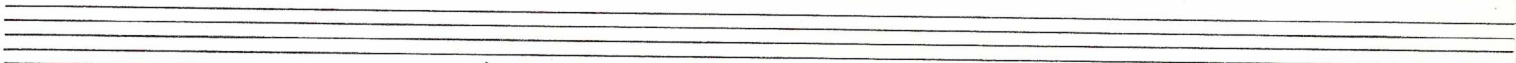
A 4-11: [0, 2, 4, 5]

B 4-11: [2, 4, 6, 7] =  $T_2(A)$  nearly ordered

C 4-10: [9, 11, 0, 2] shares pcs 0, 2 with A

D 4-11: [11, 0, 2, 4] =  $IT_4(A)$  shares 0, 2, 4  
 =  $IT_6(B)$  shares 2, 4  
 shares 11, 0, 2, with C  
 (last tetrachord)

Retrograde / previous 3-2 brings in contour pc 2 as terminus



Tetrachords in  
Symphonies of Winds  
Chorale

4-6

4-7

4-10

→ 4-11!

→ 4-14!

4-16

4-17

4-18

4-21

4-22

---

Last part

4-25

4-23

4-20

4-26 (vertical)

4-27

4-13

4-18

4-29?

Subsets of 8-28 (the "octatonic" octad)

7	31.8																		
6	13.4	23.4	27.8	30.4	49.4	50.4													
5	10.8	16.8	19.8	25.8	28.8	31.8	32.8												
4	3.4	9.2	10.4	12.8	13.8	15.8	17.4	18.8	25.2	26.4	27.8	28.2	29.8						
3	2.8	3.8	5.8	7.8	8.8	10.8	11.8												

Comments:

1. 8-28 contains only one type of 7-element subset. This set has the same set of subset types as 8-28, excluding, of course, 7-31, as trivial.
2. Of the six types of hexachords, four are Z types; only two are non-Z: 6-27, and 6-30. Set 6-30 is the Petrouchka chord. The most characteristic hexachord of 8-28, however, is 6-27: represented 8 times.
3. Each of the 5-note subsets is represented exactly eight times.
4. Each of the 3-note subsets is represented exactly eight times.
5. The tetrachordal substructure is the most diversified, with thirteen types included. Of these, those most frequently represented are 4-12, 4-13, 4-Z15, 4-18, 4-27, and 4-Z29.\*

*because of partitioning 98* ←

\*However, Stravinsky's octatonic music features 4-3 and 4-10.

Handwritten musical score for the first system, consisting of two staves. The top staff is in treble clef and the bottom staff is in bass clef. The music is written in 2/4 time and features complex rhythmic patterns, including triplets and sixteenth notes. The key signature is one flat (B-flat). The first four measures of each staff are grouped by a large bracket. The notation includes various accidentals (sharps, flats, naturals) and dynamic markings (accents).

Handwritten musical score for the second system, consisting of two staves. The top staff is in treble clef and the bottom staff is in bass clef. The music continues with complex rhythmic patterns and accidentals. The key signature remains one flat (B-flat). The notation includes various accidentals (sharps, flats, naturals) and dynamic markings (accents). The first four measures of each staff are grouped by a large bracket.