

Schoenberg, Op.24/3 Variationen

Set Table (atonal pc numbers)

(See Maegaard, Faks. Abb. No. 6)

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

only 4 forms used: P_0, I_0, R_0, RI_0

P_0 excludes pc 11
 ~~I_0~~ excludes pc 9

$$I_0 = T_8 I(P_0)$$

Brackets delineate segments
 common to P_0 and I_0

(See m. 35)

P_{c10} in P_0 and I_0 (0) (trivial)
 R_0 and RI_0 (13)

$P_c 4$ in P_0 and I_0 (10) R_0 and RI_0 (3)

$P_c 8$ in P_0 and R_0 (4 and 9)

$P_c 0$ in I_0 and RI_0 (4 and 10)

NB. EXACT POSITIONAL CORRESPONDENCE:

See table of correspondences

Schoenberg, Op. 24/3

Misc. notes

Chronology

~~xxxxxx~~

Special role of ~~xxxxxxx~~ pcs excluded from P0 and I0: pc9 and pc11

Use of segments common to P0 and I0

*Complicated passage beginning in m. 35

Use of incomplete statements of the row

General: combination of R-related forms to ~~xxxxx~~ form "semi-aggregates"

Order number segmentation in mm. 35 and 36: This presages more complicated development of ~~xxx~~ row ordering in the later 12-tone works--e.g., the order number canon in the first movement of the Third Quartet.

The structure is based on the association of conjugate (inverse-related almost, mod. 12)

Row Forms in Schoenberg's Opus 24/3, *Variationen*

P_{10}
 $10_0 \ 9_1 \ \overline{1_2 \ 0_3} \ 8_4 \ \overline{2_5 \ 3_6} \ 6_7 \ \overline{7_8 \ 8_9} \ 4_{10} \ 2_{11} \ \overline{6_{12} \ 5_{13}}$ (11 excluded)

\downarrow
 $T_{8I}(P)$
 $10_0 \ 11_1 \ \overline{7_2 \ 8_3} \ 0_4 \ \overline{6_5 \ 5_6} \ 2_7 \ \overline{1_8 \ 0_9} \ 4_{10} \ 6_{11} \ \overline{2_{12} \ 3_{13}}$ (9 excluded)

$R(P)$
 $\overline{5_0 \ 6_1} \ 2_2 \ 4_3 \ \overline{8_4 \ 7_5} \ 6_6 \ \overline{3_7 \ 2_8} \ 8_9 \ \overline{0_{10} \ 1_{11}} \ 9_{12} \ 10_{13}$

$R(T_{8I}(P))$
 $\overline{5_0 \ 2_1} \ 6_2 \ 4_3 \ \overline{0_4 \ 1_5} \ 2_6 \ \overline{5_7 \ 6_8} \ 0_9 \ \overline{8_{10} \ 7_{11}} \ 11_{12} \ 10_{13}$

Var. 1

ORDER NOS. BEGIN WITH ZERO

12

Handwritten musical notation for system 12. It features three staves: guitar (Gt), voice (Vcl), and another guitar (Gt). The guitar part is marked with a circled 'T8I' and '7-8-9'. The voice part is marked with 'Dux' and 'COMES' and numbered 0 through 12. The second guitar part is marked with 'Excluded from T8I' and 'R(16)'. The notation includes various notes, rests, and ties across the staves.

16

Handwritten musical notation for system 16. It features three staves: guitar (Gt), voice (Vcl), and another guitar (Gt). The guitar part is marked with 'Dux' and 'COMES' and numbered 0 through 13. The voice part is marked with 'COMES' and numbered 0 through 13. The notation includes various notes, rests, and ties across the staves.

22

Handwritten musical notation for system 22. It features three staves: guitar (Gt), voice (Vcl), and another guitar (Gt). The guitar part is marked with 'Var. II' and 'P10'. The voice part is marked with 'liquidation' and 'dashim pcy'. The notation includes various notes, rests, and ties across the staves.

ORDER POSITION

J.C.G.

OP D#C# grace notes use positions 11, 9, 9 in T8I

6-244: [11, 2, 3, 6, 7, 8]

9, 11, 2, 3, 5, 6

6=19

(M. 12-15)

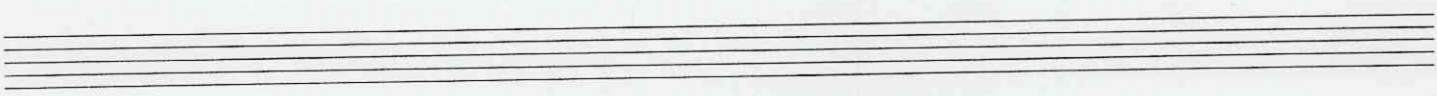
12

Handwritten musical notation for measures 12-15. The system includes three staves: a top staff with a treble clef and a key signature of one flat, a middle staff with a guitar clef, and a bottom staff with a bass clef. The notation consists of eighth and sixteenth notes with various accidentals (sharps and flats). The guitar staff shows sustained notes with horizontal lines above them. The bass staff features a melodic line with many accidentals.

16

Handwritten musical notation for measures 16-19. The system includes three staves: a top staff with a treble clef and a key signature of one flat, a middle staff with a guitar clef, and a bottom staff with a bass clef. The notation includes eighth and sixteenth notes with accidentals. The guitar staff has some notes with a 'ma' marking above them. The bass staff has a melodic line with accidentals and a 'BR' marking below it. The bottom staff also has a 'Vcl' marking below it.

Handwritten musical notation for measures 20-21. The system includes three staves: a top staff with a treble clef and a key signature of one flat, a middle staff with a guitar clef, and a bottom staff with a bass clef. The notation includes eighth and sixteenth notes with accidentals. The guitar staff has a 'ma' marking above it. The bass staff has a melodic line with accidentals and a 'Br' marking below it. The bottom staff also has a 'Vcl' marking below it.



See Messiaen, Fats. Abb. No. 6

Schoenberg, Op. 24/3 Variationen

This was begun (thru me) before op. 25, but only completed after all movements of op. 25 were finished - Thus, the most sophisticated 12-tone procedures (but check Messiaen's chronology) P. 1

"Thema"

m. 2 m. 4 m. 6 m. 8 m. 10
 (P₀)
 3-3: {9, 10, 1} 6-24: {2, 3, 4, 6, 7, 8} IT4 (invar. 2, 8)
 10 9 1 0 8 2 3 6 7 8 4 2 6 5 5 6 2 4 8 7 6 3 2 8 0 1 9 10
 RETROGRADE
 (P₀)
 4-3: {9, 10, 0, 1} 5-3: {8, 9, 10, 0, 1}
 6-24: {8, 9, 10, 0, 1, 2}
 7-5: {8, 9, 10, 0, 1, 2, 3}
 8-229: {6, 8, 9, 10, 0, 1, 2, 3}
 9-5: (11, 4, 5)

[Series in 11-11!]

Repeated pitches are

2, 6, 8 (3-8) - Specially marked by 0 in Messiaen, Facsim. Abb. 6

Var. I

m. 12 m. 14

KL. 10 [10 11 (2 1 0) 7] 8 0 6 5 2

Gt. ⑨ Ant. in I 9 9 9 9 9 9 9 9 9 9 9 9 9 9

Vcl. 11 7 8 0 6 6 5 2 1 0 4 6 2 3⁰ 2¹ 2 6² 4³ 0⁴ 1

Inversion of themes - in common with Vcl.
 (marked?)
 grace notes of
 order nos 7, 8, 9

IT₈ of Themes #
 in Vcl.
 - excludes pc 9
 (in Gt.)

RT₈ Retrograde
 begins

Common trichord
 with II₀
 (only 2 synth)

pc 11,
 missing from
 themes in
 second notes
 of inversions
 of themes (IT₈)

In the inverted form of
 the themes, the repeated
 pcs are 0, 1, 6

1st or IT₇ in Gt. 1st

m. 15

m. 16

m. 17

1^8 0^9 4^{10} 4 6^{11} 2^{12} 3^{13}
 9 9 9 9 9
 (R) 2^4 2 5^9 6^8 0^9 8^{10} 7^{11} 11^{12} 10^{13}

9 11 9 11 9 11

End of first half of measure

Guitar harmonics
(See sketch of
Tone)

pcs 9 and 11
are excluded notes
from IT₆ and
T₀, respectively

Corresponds to peg in G♭ in preceding section (in main pt)

m. 17 *Po begins* (11) (18) (19) (21) *End of first half of Po* *Common triad 2 5 6 (3-3)* m. 21 *End of first half of Po*

md 11 11 11 11 11 11

Gg [10 9 1 0 8 2 ~~T₁₀ 6~~ 3 6 7 8 4 2 2] 6

Br. { 1^2 } 1 0 3 8 4

Bkl. { 10^0 } 9' 2^s 3^s 6' 6' 7^s 8

vel. [5₀ 6₁ 2 4 8 7 6 3 2 8 0 1 9] *to kl*

(to) headnote tailnote

10 10 (7 5) 4¹⁰
 8⁹ 8

Kl. 2¹¹ 6¹² 5¹²

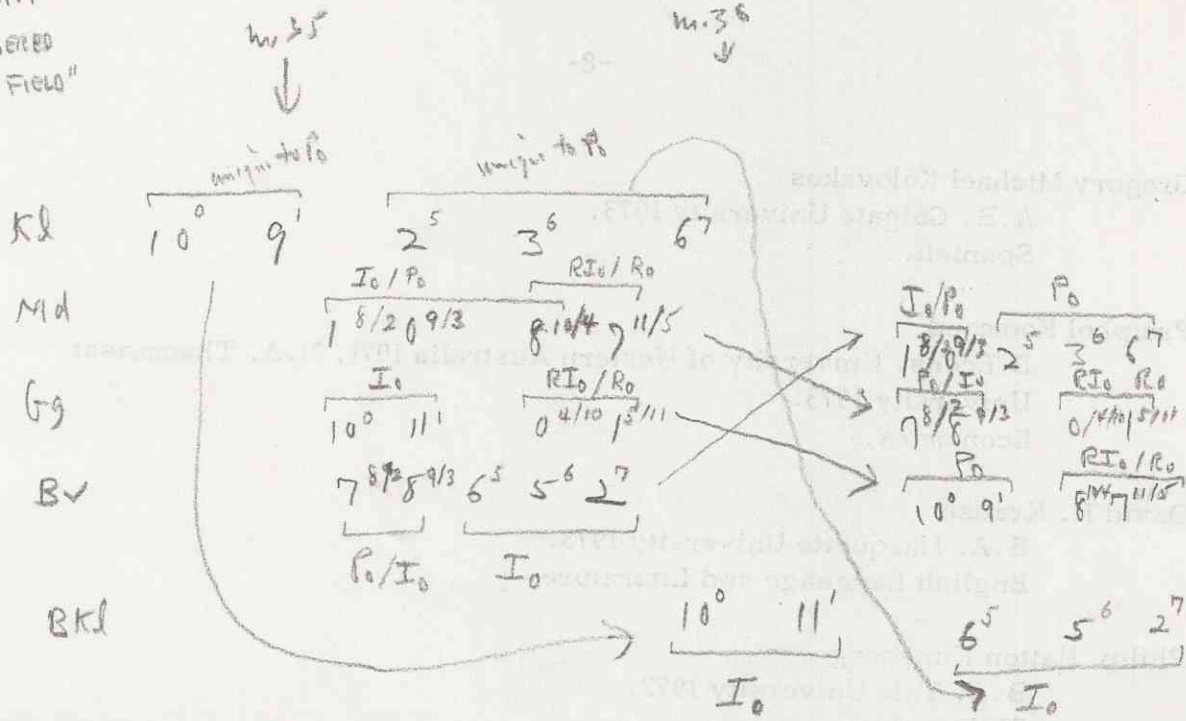
Retrograde begins, overlapping first half in Bkl.

Bkl. ?

Br, and Bkl, and Kl, together present another form of Po - note reversal of dyad pos 1 and 9

Based on common segments between row forms
"FRAGMENTATION"

EXAMPLE OF
"AMBIGUITY"
AND "ORDERED
ATONAL FIELD"



N.B. pc 4 omitted
(also elsewhere)

The arrows ~~indicate~~ designate corresponding ^{components} of the 2-part pattern. These ^{components} are also associated by intervals, with the second of each representing a reversal of contour, ~~in each case~~.

N.B. May be regarded (see m. 39) as extension of original idea of positional correspondence of missing pcs, pc9 and pc11

- Thus, in P_0 pcs 2 3 6 occupy positions 5 6 7
- and in I pcs 6 5 2 occupy positions 5 6 7
- In RI_0 pcs 3 2 6 occupy positions 10 1 2
- and in R_0 pcs 5 6 2 occupy positions 0 1 2

→ of Rofe's incorrect reading (p. 6) - not informed by Babbitt

3. VARIATIONEN

THEMA

Andante (♩=96-100)

poco rall. - - a tempo

1 2 3 4 5 6 7 8 9 10

Kl 4/8 *pp*

Bkl

Md

Gt 4/8

Gg 4/8

Br 4/8

Vcl

I. VAR.

tempo

11 12 13 14 15

Kl *sf* *zart* *p* *sf*

Bkl

Md

Gt *p*

Gg

Br

Vcl *pp* *stacc* 3

16 17 18 19 20 21

Kl *pp*

Bkl *sf* *sf* *sf*

Md *ppp*

Gt *Flag*

Gg *ppp* *sf* *pizz* *arco*

Br *sf*

Vcl *pp* *sf* *pizz*

II. VAR

poco rit. - - - (♩♩ = ♩)

22 23 24 25

Kl *pp*

Bkl *pp*

Md *pp*

Gt *pp*

Gg *ppp* *pizz*

Br *ppp* *pizz*

Vcl *arco* *ppp* *pizz*

25 27 28

Kl *sf*

Bkl *sf*

Md *sf*

Gt *sf*

Gg *(pizz)*

Br *(pizz)*

Vcl *(pizz)*

29 30 31

etwas rascher

Kl *pp*

Bkl *pp*

Md *pp*

Gt *pp*

Gg *arco*

Br *arco*

Vcl *arco* *molto spiccato*

am Sleg

Variation 3 ABAB form (Tempo)

Here (m.35) order number manipulations associate row segments that are invariant between P0 and I0 or unique to one or the other.

m.34

m.35

m.36

Kl.

Md. (P0) 2

Stgs

Bv 3 6 7 8 4 2

I0 val [1 7 8 0 6 5 2 1 0 4]

begin in m. 33

Gt

Bkl

10 9 2 3 6

6 5] end of P0 (inc.)

6 2 3] end of I0

6 5]

6 2 3]

end of I0
end of P0

1 0 8 7

10 11 0 1

17 8 6 5 2

1 0 2 3 6

7 8 0 1

10 9 8 7

10 11 6 5 2

SEE separate page for complete reading

In Var. 3, the procedures (combinations) become far more complicated - in particular, the individual instruments no longer carry ^{down} rows (or end) segments - cf. atonal procedures

m. 37

m. 38

m. 39

m. 40

kl. $10^{\circ} 9' \frac{5}{2}$

md

P_0/I_0

I_0

11' 11 11

P_0/I_0

$\frac{1}{2/3} \frac{0}{3/9} \frac{8}{4/10} \frac{7}{5/11}$
x

Stgs $\left\{ \begin{array}{l} B_9 \\ B_7 \\ \text{vel.} \\ I^{\circ}/P_0 \end{array} \right.$

	4^{10}	$6^{11/7}$	8^9	$6^{12/5}$	$5^{13/6}$	5
	0^9	$2^{12/5}$	$3^{13/6}$	4^{10}	$2^{11/7}$	2
					3	3

$P_0/B_9 \frac{5}{7} \frac{3}{4}$
 $P_0/I_0 \frac{5}{7} \frac{3}{4}$

B. $10^{\circ} 11'$ $9' 10^{\circ}$

gt

P_0 $9'$ 9 10° $9' 2^{5/7}$ P_0/I_0 $\frac{6}{13} \frac{7}{15} \frac{0}{6} \frac{1}{11}$

Bkl

10 11 $6 \sim 6$ 4

Continuation
of order number
manipulations
from mm. 25-36

— See sep. page

NB pcs 9 and 11
from opening
(Uav. 1)

End of Var.

m. 41 I_0 $8^6 5^5 2^7$
 kL. P_0/I_0 $7^{8/2} 8^{9/3} \underbrace{0^{10/4} 1^{11/5}}_{x'}$
 m. 42 R_0/R_{I_0} $5^{9/7}$
 m. 43 $6^{1/8} 8^{4/10}$
 m. 44 P_0/I_0 $6^{7/5} 4^{10/10}$ 5

Stgs $\left\{ \begin{array}{l} G \\ B \\ Vcl \end{array} \right.$ $10^0 9^1$ R_0/R_{I_0} $8^{4/10} 7^{5/11}$
 $1^{2/8} 0^{3/9} 0 2^{5/12} 3^{6/13} 6^{7/11} 10^0$ P_0/I_0 $0^{3/4} 2^{5/7} 3^{6/13} 2^{8/7} 10/4$
 $10 9 2 3 3 6$

Gt R_0/I_0 $12/5$ $13/6 11/7$ $5 2$ I_0 10^0 11^1 P_0/I_0 $6^{12/5} 13/6$ 2

Bhl P_0/I_0 $5/7$ $2 2$ $10/10$ $7/5$ $10/10$ $5/7$ $10/4$
 $2 4 6 4 2 0$ $3/4$



HB.

P₀/I₀
R₀/R_{I₀}

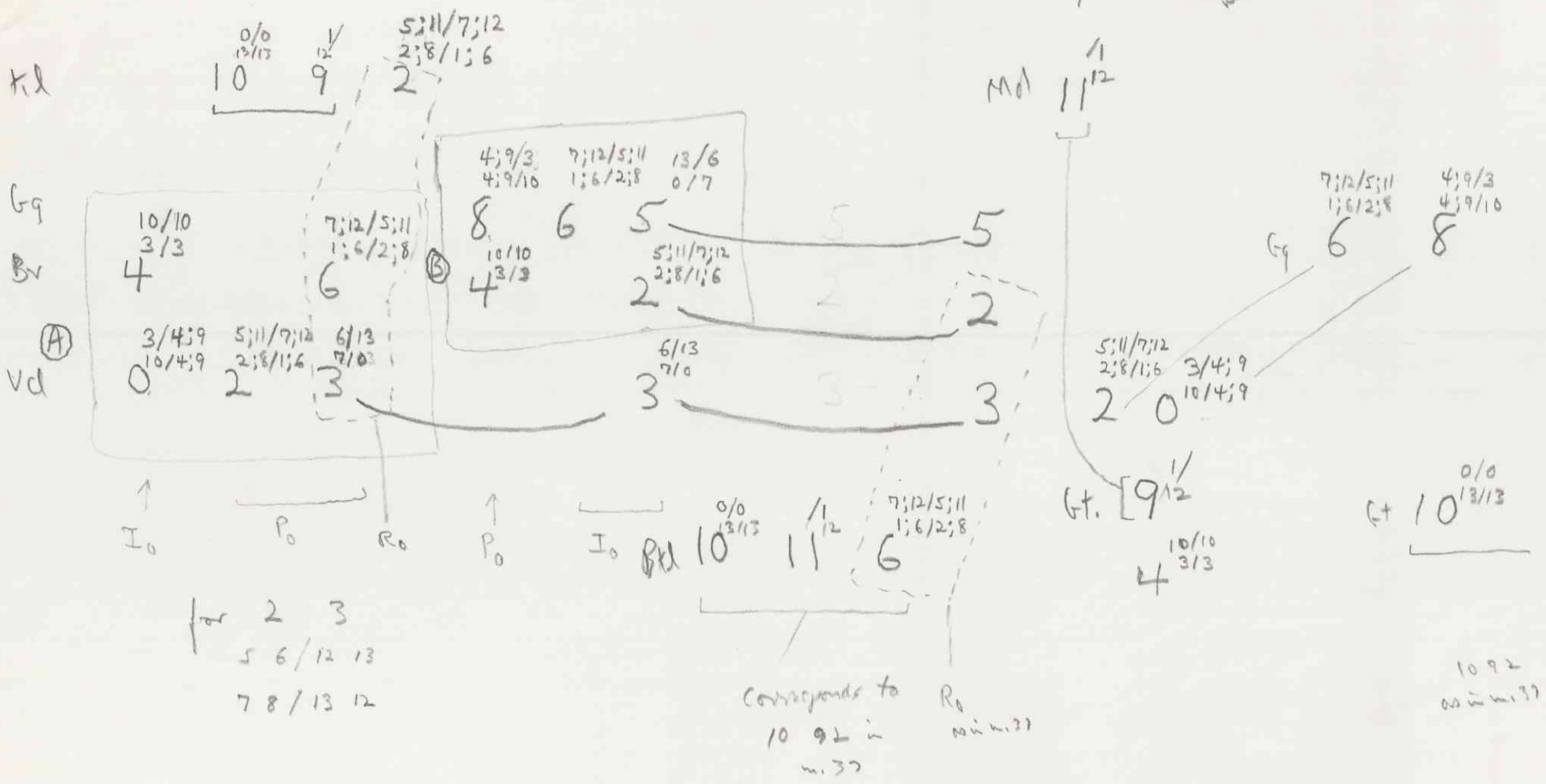
m. 37 - All indices shown

m. 38
↓

m. 39
↓

WORK SHEET

pos 11 and 9
as in Var. 1
(the basic index
associated pos
in P₀ and I₀)



or 2 3
5 6 / 12 13
7 8 / 13 12

Corresponds to R₀
10 9 2 in m. 37

Note positional correspondences - see Summary
of indices

	A	B
5-8	{ 4 0 2 3 6	{ 4 8 6 5 2

5-8
t=2
(interchange)

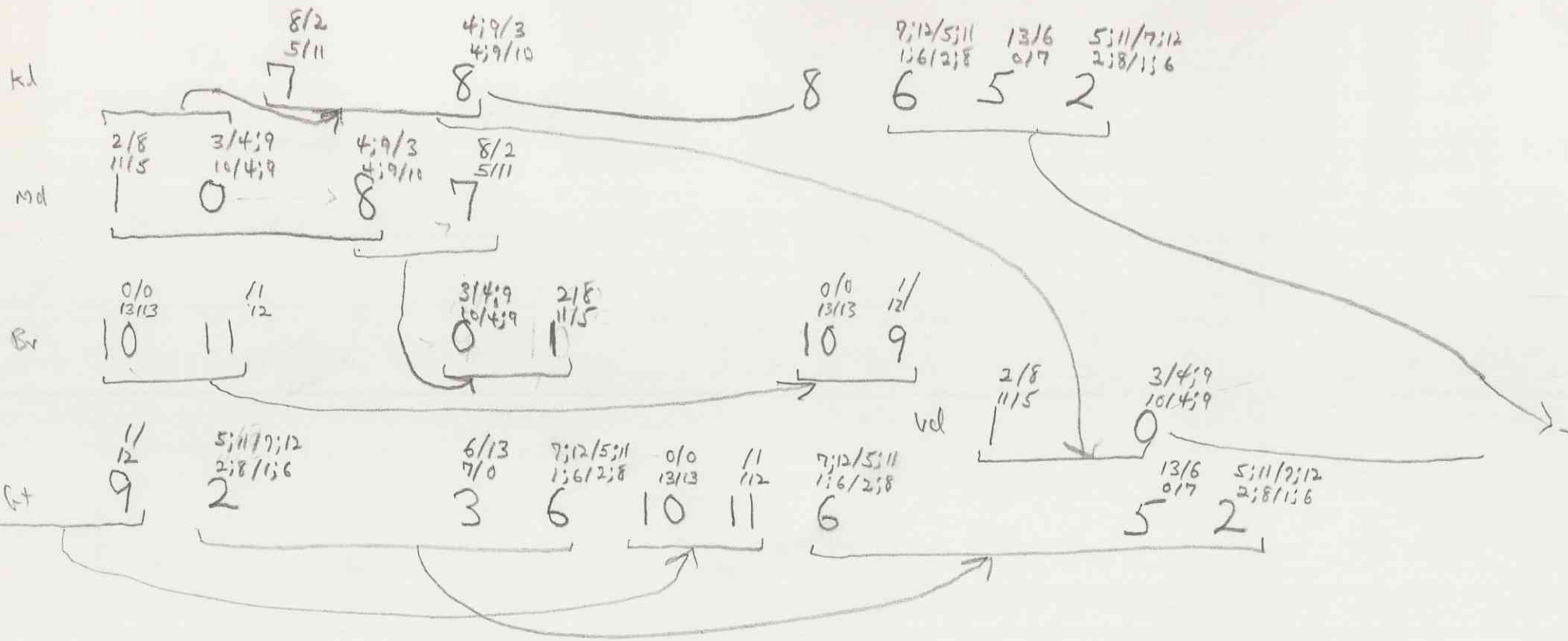
6-219: {10, 11, 2, 3, 5, 6}
not a contiguous row segment
The Signature!

Notes 0 2 3 4 6
as in m. 37

10 9 2
as in m. 37

Po/Io
Ro/RIo m. 40

m. 41
↓



78652

Qo r { 10 57
m. 35 { 10 11 0 1

10 9 2 3 6

Development - transport
expansion, etc. of
m. 35

row segment

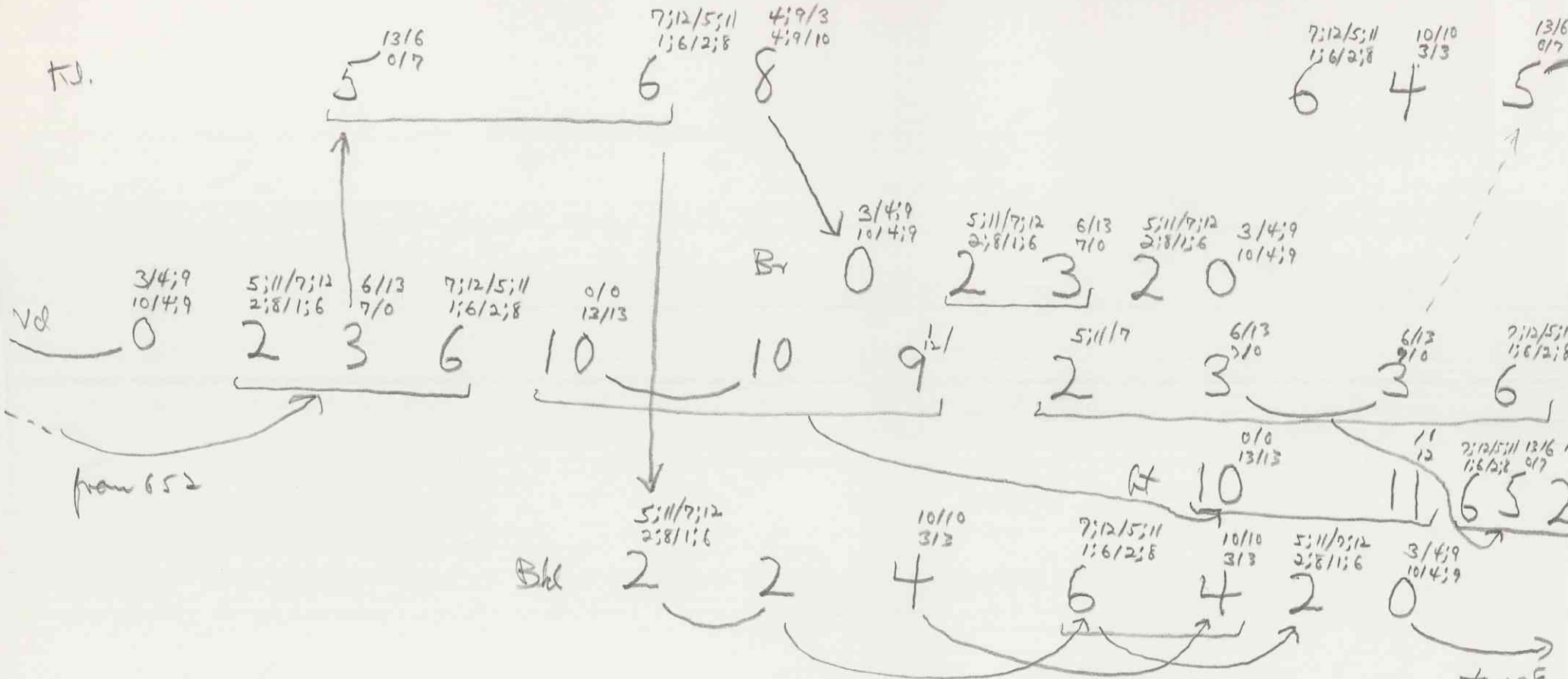
m. 42
↓

m. 43
↓

(END OF VAR. 3
NOT YET COMPLETED)

m. 44
↓

KJ.



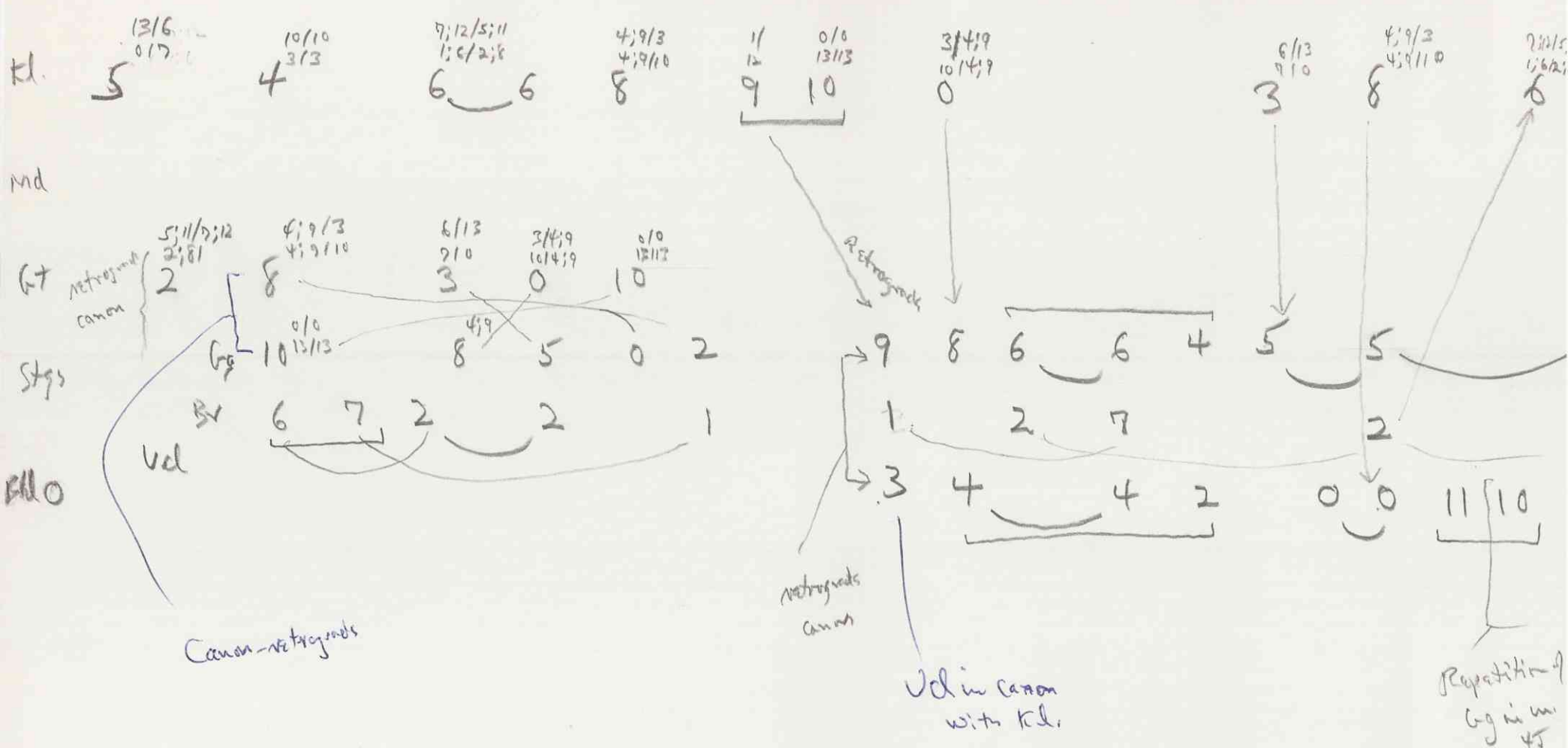
Notes that entrances
determined by fixed pairs: 5;3
6;2
8;0
non segment

0 2 3 2 0 in
Vd m. 37

top of
in Out
var. 10

m. 44 m. 45 m. 46 m. 47 m. 48 m. 49

Var. IV



In Var. IV very few
new segments

m. 50

m. 51

m. 52

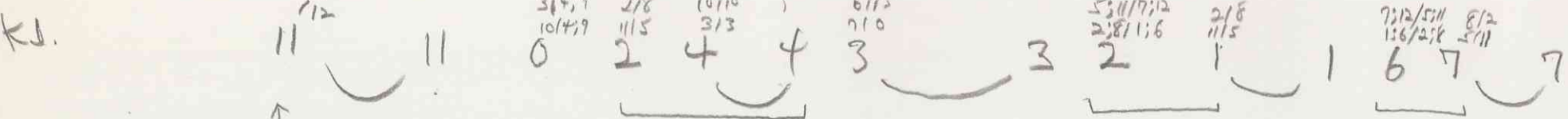
m. 53

m. 54

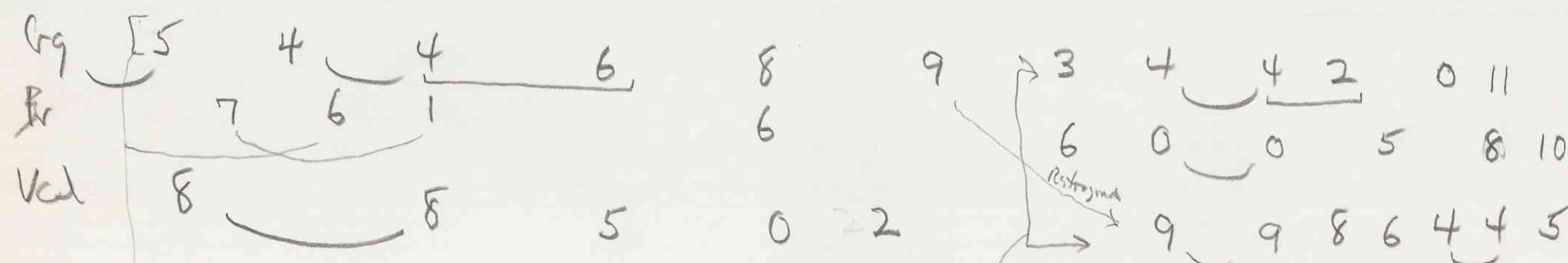
m. 55

in canon w/ prev. Gt

to pe & rd m. 5
to pe & rd m. 44



Retrograde of
Vcl. begins in form
m. 47 - also conjugate
pairs with rd beginning
in m. 44



Retrograde
of previous
Org line

Repetition
of canon
between Org
and Vcl.
in m. 47

Vari. ∇
m. 56

m. 57

m. 58

does not correspond to one
Should be pc 6 -
in Bk, thin my not

Kl

I_0 7² 6⁵ 1⁸ I_0 12²

Md

P_0 2 5 8
1 2 7 2¹¹

G₂

P_0 9¹ 8⁴ 6⁷ 4¹⁰ 5¹³

B_v

I_0 1 4 7 10 13
11 0 2 4 3

G₁

P_0 5 6 2 4 8 7 6

P_0 10⁰ 0³ 6⁶ 8⁹ 5¹³

P_1 3⁰ 2¹ 5

Bkl

I_0 10⁰ 8³ 5⁶ 6⁹ 0

Vcl P_0 10⁰ 9¹ 1² 1⁰ 8⁴ 2⁵ 3⁶ 6⁷

I_0 10⁰ 11¹ 7²

Return to
Row segments
in this last
variation

ORDER NO. CANONIC
Here removed
non-contiguous
segments
Combined with
ordered contiguous
row segments

wrong note?
- no, belongs
to Kl.

CANONIC PAIRS
NOT YET COMPLETED

m. 59

m. 60

Vel. m. 61

m. 61

XL

(R_0) 7^1 7^5 2^8 $11''$ 10^0 11^1 7^2 8^3 0^4 6^5 $5^{6/0}$ 6^1 2^2 4^3 8^4 9^5 6^6

Md

(R_0) 2^1 1^5 6^8 $7''$

Gy

(R_0) 5^0 4^3 6^6 8^9 9^{12}

Bv

(R_0) 3^0 4^3 2^6 0^9 11^{12}

(I_0) 10^0 11^1 7^2

(R_0) 6^2 4^3 0^4 1^5

* (R_0) 0^4 6^2 5^7 8^{10} 10^{13}

BH

Bkl

(R_0) 2^2 8^4 3^7 0^{10}

10^{13}

(R_0) (P) Klim 61
 3^0 2^1 6^2 4^3 0^4 1^5 2^6

(I_0) 7^2 8^3 0^4 6^5 5^6 2^7

(R_0)
 (P) 10^0 9^1 1^2 0^3 8^4 2^5 $3^{6/0}$ 2^1

* first dyad reversed

Ex. II

m. 25

m. 26

m. 27

End of P₀ (and canon w/B♭)

Kl.

(P₀)

6₇

7₆

8₉

8₉

4₀

2₁

or 7

6₁₂

5₄

Md.

0₉

8₁₀ 7₁₁

11₁₀ 10₉ 9₁

10₀ 9₁ 1₂ 0₃

8₄

Stg.

End of P₀
RI₀

RI₀ $\begin{bmatrix} 3_0 \\ 6_2 \\ 2_1 \end{bmatrix}$

4₃
0₄
1₅

Fl.

3₇ 2₈ 8₉ 0₁₀

1₁₁ 9₁₂

10₁₃ 11

End of P₀

II₀ $\begin{bmatrix} 10_0 & 11_1 & 7_2 & 8_3 \end{bmatrix}$

0₄ 6₅ 5₆ 2₇

B♭.

8₃
6₃

5₆

2₇

II₀ $\begin{bmatrix} 3 \\ 18 \end{bmatrix}$ 0₉ — 0

III₀ $\begin{bmatrix} 4_{10} & 6_{11} & 3_{13} \\ & & 2_{12} \end{bmatrix}$

End of

II₀ (and canon w/Kl.)

m. 62

m. 63

m. 64

Kl

Md

Gg

Br (I_0) 8³ 0⁴ 6⁵ 5⁶ 6¹¹
?

Gt

Bll

Vcl (RI_0) 6² 4³ 0⁴ 1⁵ (P_0) 9¹ 8⁴ 6⁷ 4¹⁰ 5¹³

(RI_0) 3⁰ 4³ 6⁹ 11¹²
x

(RI_0) 2¹ 1⁵ 6⁸ 7¹¹

(P_0) 1²
z

(RI_0) 6²
w

Br (P_0) 10⁰ 1⁹ 1² 0³

(I_0) 10⁰ 11¹ 7² 8³ 0⁴ 6⁵ 5⁶

(R_0) 6¹ 7⁵ 2⁸ 1¹¹ (I_0) 10⁰ 8³ 5⁶ 0⁹ 2¹²
y

(P_0) 10⁰ 0³ 3⁶ 8⁹ 6¹² (I_0) 7² 6⁵ 1⁸ 6¹¹
y z

2⁵ 7⁸ 2¹¹ (R_0) 5⁰ 4³ 6⁶ 8⁹ 9¹²
x

0⁴ 5⁷ 8¹⁰ 10¹³

8⁴ 2⁵ 3⁶

(I_0) 11¹ 0⁴ 2⁷ 4¹⁰ 3¹³

(R_0) 2² 8⁴ 3⁷ 11¹⁰ 10¹³
w

↑
should be
cb, not cb
- imitates Gt in mm 62-63

m. 64

Kl I₀ 5⁶

(P₀) 2¹¹

Md I₀ 0⁹ 2¹²

(P₀) 6¹² 5¹³

Gg I₀ 6¹¹

2
4

I₀
10⁰ — 10 11¹
7² — 7 8³

Bv

8

04 — 0 2⁷
5⁶ — 5 4¹⁰

Gt

(P₀)^{*} 10⁰ 1² 8⁴ 3⁶ 7⁸ 2¹⁰

Bkl

(P₀)^{*} RI₀
2 { 3⁰ } 3 1² 6³ 4⁴ 0⁵ 2⁶ — (P₀)^{*} 2⁶ 5⁷ 6⁸ 0⁹ 8¹⁰ 7¹¹ 12¹²

Vcl

6 9 6

0
6

CANON: B, Kl. & Kl.

* New subset

Chords for first time

* first digit
+ used

mc 66

Kd 6 3² 2⁸ 8⁹ 0¹⁰ 1¹¹ 9¹² 10^{13/0} ^{P₀}

CODA
↓

Md

Bg

Bv

9¹ 1² 0³ 8⁴ 2⁵ 3⁶ 6⁷ 7⁸ 8⁹

Gt

Bhd ^{R_{I₀}} ^{I₀} 10^{13/0}

Vd

^{I₀} 11¹ 7² 8³ 0⁴ 6⁵ 5⁶

2⁷ 1⁸ 0⁹ 4¹⁰ 6¹¹ 2¹² 3¹³

CANNOT:
Vcl & Br.

Coda

(67)

(68)

(69)

tl		2 1 0 4 2		0 2 3 4 0		7 8 6
ml	10 9	2 3				3 4 1 0
lg	8 7 6 8		0 1 7 8 2			6 5 4
Pr.	8 4 4 8 7		0 5 4 6			8 6 7 8
Gt.	1 3 4 0		10 3 6		5 2	2 2 3
Bkl.		5 7 8 6		8 7	6 8	1 0 2
Vcl	3	6 10 11	2 3	1 10	9	10 9 10 11

Coda, contd.

(70)

(71)



Kl. 9 8 2

6 4 6 5

Md.

Gg

10 11 10 11 10 9 10 9 10 11 10 11 10 9 10 9

10 11 10 11 10 11 10 11 10 11 10 11 10 10 10 9 10 9 10 9 10 9 10 9 10 9 10

Bu

7

8 5

1

0

6

G.

Bkl.

11

0 6

2

4

2

3

Vcl.

1

6

3

7

8

2

CO DA, cont.

(72)

eye!
↓

(73)

Kl. 1 0 8 2 3 6 7 8 4 2 6 6 5 5 6 8 7

Md. 10 10 10 10 10 10 10 11 10 9 10 11 10

Gg

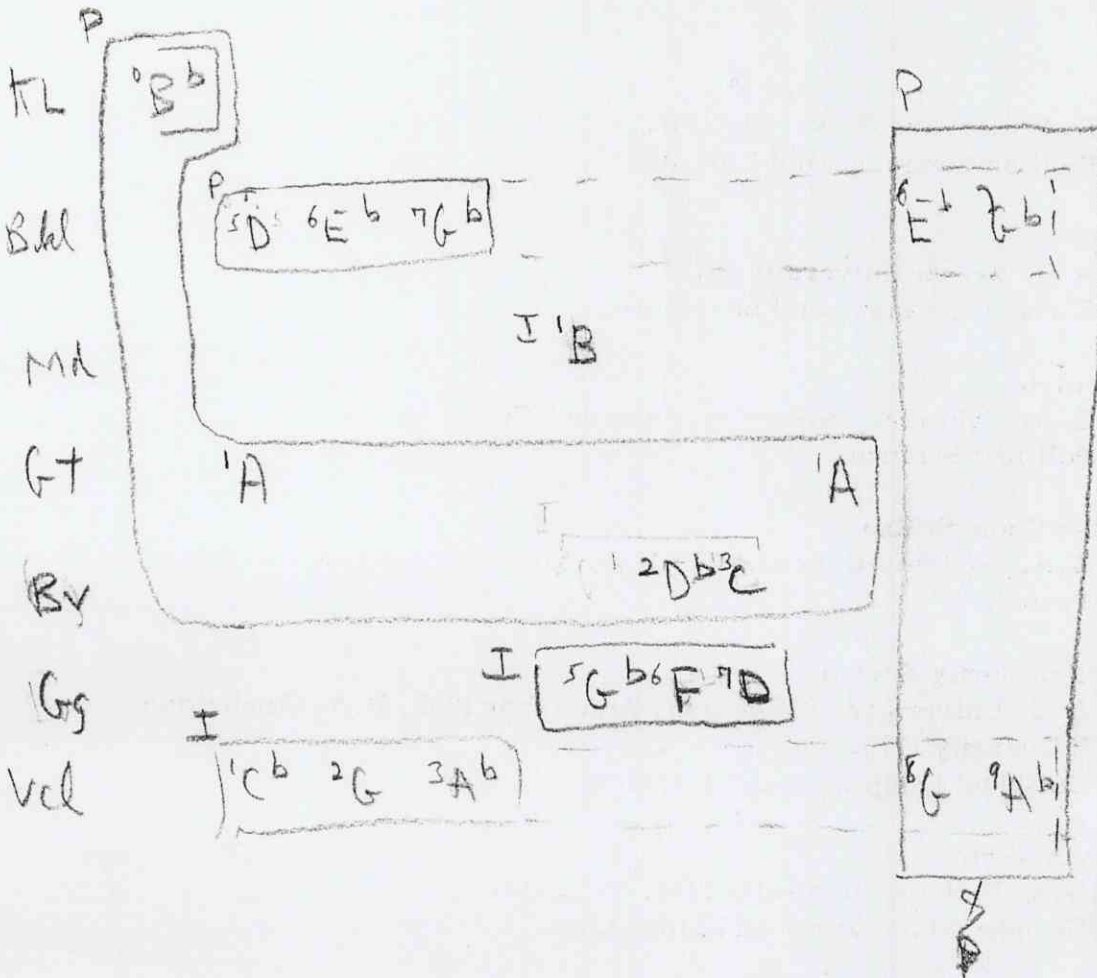
B. 9 9 9 9 9 2 2 4

H 10 9 10 11 10 9 10 11

Bkl. 7 8 0 6 5 2 1 0 4 6 2 2 3 3 2 0 1 2

Vcl. 11 11 11 6 4 6

no. 22 - class representation



Omission of repeated pc A^k
 note no. 4

New section (etwas Mascher)

m. 28

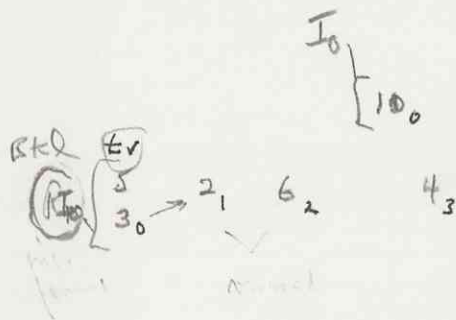
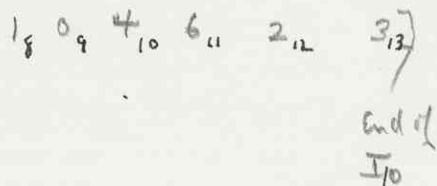
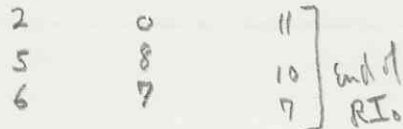
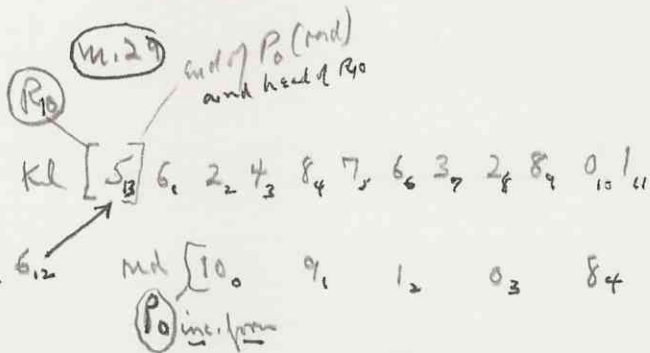
Kl

Md

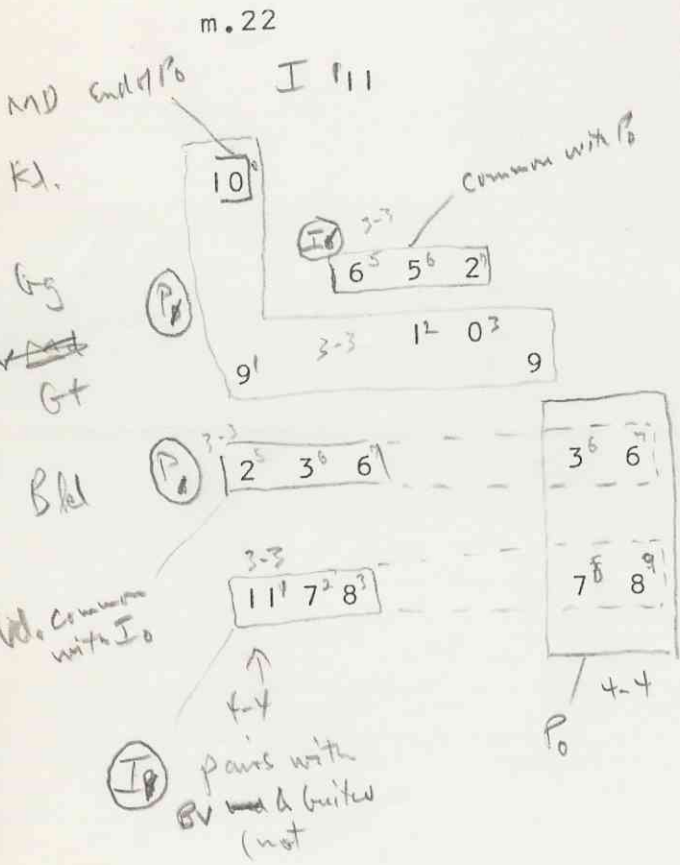
Stg

gt.

Bkl



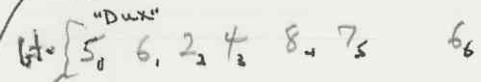
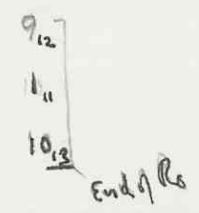
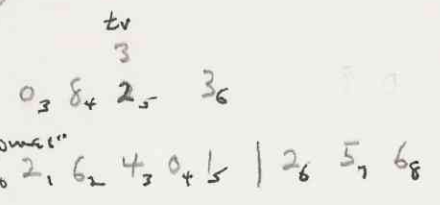
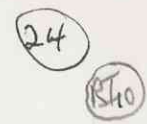
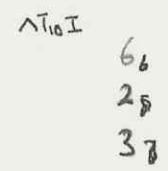
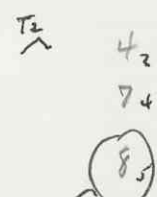
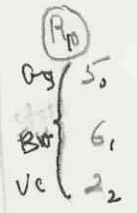
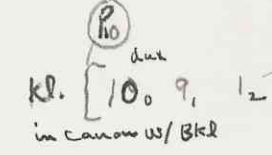
— Note inc. form of P_0 in md —
 only 6 notes
 Canon: md & gt.



all 4 forms: Double canon

Var. 11

m. 23



"Canon" = lt. & md.



mispit A^b for A^b in cells
corrected in Macgawell

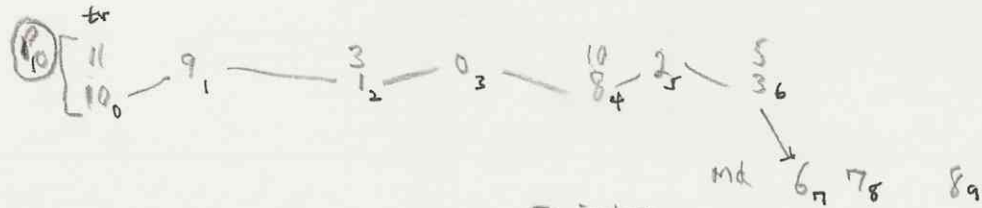
Resembles Atonal matrix pitch-field
with ordered segments of row
— lacking pc4 only

m. 30

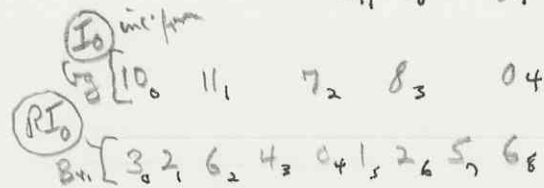
note triads; non-row adjacencies

m. 31

tr. $9_{12} 10_{13}$ end of P_0



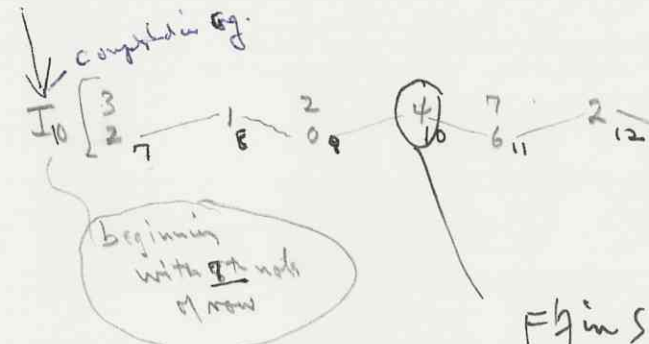
Md ⊕ 2_5 3_6 end of incomplete form of P_0 - cont'd. in bar 31



Steps { P_0 V_0 [5, 6, 2, 4, 8, 7, 6, 3, 2, 8, 0, 1, 9, 10] end of P_0

tr. (I_0) 11_1 7_2 8_3 0_4 6_5 5_6

Bkl $(P1_0)$ 0_4 1_5 2_6 5_7 6_8 0_9 8_{10} 7_{11} 11_{12} 10_{13} end of $P1_0$



⊕ (Note ^{could} be incomplete form of P_0 in md)

Note inc form of I_0 in bg - This is completed by Bkl, which begins below.

F# in scale! - corrected in Marginalia.

m. 32

Kl.

P_0 [1₀ 9₁ 2₀ 3₈ 2₅ 3₆ 7₈]

Md.

4₁₀ 2₁₁

6₁₂ 5₁₃ } end of P₀

Stgs { 6₅ 6₅ 5₆ } end of inc. form of I₀
 Br. 0₉ 8₁₀ 7₁₁ 1₁₂ 1₁₃ } end of P₁₀

I₀ Gg [1₀ 1₁ 7₂ 8₃]

Gt

(I₀) 2₇

1₈

0₉

Bkl { 5₁₃ } end of

m. 33

8₉ 4₁₀ 2₁₁

P_0 [6₇ 7₈ 8₉]

6₅ } end of P₀
 1₂ 1₃

4₁₀

0₄ 6₅ 5₆ 2₇ 1₈ 0₉ 4₁₀ } end of I₀ inc. form

Br. [1₀ 9₁ 2₀ 3₈ 2₅]

P_0 inc.

vd. [1₀]
 I₀

4₁₀

6₁₁ 2₁₂

3₁₃ }

end of I₁₀

End of Var. II

Note inc. form of I₀ in Gg - completed by 6 2 3 in Gt

Inc. form of P₀ in Br and Md. (to Md. completed by Br)

Schoenberg, Op.24/3

Indices associated with pc integers

P_c	$P_{(0)}$	$I_{(0)}$	$R(P_{(0)})$	$R(I_{(0)})$
→ 0	3	4;9	10	4;9
1	2	8	11	5
→ 2	5;11	7;12	2;8	1;6
3	6	13	7	0
→ 4	10	10	3	3
5	13	6	0	7
→ 6	7;12	5;11	1;6	2;8
7	8	2	5	11
→ 8	4;9	3	4;9	10
→ 9	1		12	
10	0	0	13	13
→ 11		1		12

Pc differentiation on basis of order number associations (brackets)

Note special situation w/r pc4 and pc10

Summary of order-associated pcs: (Conjugates)

0:8

1:7

2:6

3:5

9:11

4:4

10:10

Handwritten musical score for the first system. It consists of two staves: a treble staff (top) and a bass staff (bottom). The treble staff begins with a treble clef and a key signature of one flat (B-flat). The bass staff begins with a bass clef and a key signature of one flat (B-flat). The music is written in a common time signature (C). The score includes various musical notations such as notes, rests, and accidentals. There are several dynamic markings: *mf* (mezzo-forte) and *TK* (likely *tr* for trill). The notation is dense and appears to be a working draft or a composer's sketch.

Handwritten musical score for the second system. It consists of four staves. The top two staves are treble clefs, and the bottom two staves are bass clefs. The music is written in a common time signature (C). The notation is very dense and complex, with many notes, rests, and accidentals. There are several markings, including *mf* (mezzo-forte) and *X* (likely *tr* for trill). The notation is dense and appears to be a working draft or a composer's sketch.

Margaad - Faks. Abb. no. 6. Op. 24 Var. (Bl. 1 p. 1-2). Mikr.no. 838-39