Tristan chord in Tristan
The Octatonic "network"

$F_{hd}7$: [3,5,8,11] D7: [6,9,0,2] complement of T-chord w/r 8-28 T_5I

Transpositions by ordered CII:						Transpositions by complementation (inversion): ordered CII					
2	4	7	10	CI	Ehd7	5	8	11	1	CI	Db7
0	2	5	8	CII	Dhd7	3	6	9	11	CII	B7
11	1	4	7	CI	C#hd7	2	5	8	10	CI	Bb7
9	11	2	5	CII	Bhd7	0	3	6	8	CII	Ab7
8	10	1	4	CI	A#hd7	11	2	5	7	CI	G7
6	8	11	2	CII	G#hd7	9	0	3	5	CII	F7
5	7	10	1	CI	Ghd7	8	11	2	4	CI	E7
3	5	8	11	CII	Fhd7 T-chd6	6	9	0	2	CII	D7

For the "V7" inversions, the successive transposition series (ascending) is:
t = 5, t = 9, t = 11, t = 3 (4-25)

The remaining four transpositions of the T-chord and their complements form CIII:

10 0 3 6	1 4 7 9	A7
7 9 0 3	10 1 4 6	F#7
4 6 9 0	7 10 1 3	Eb7
1 3 6 9	4 7 10 0	C7

N.B. Debussy's use of inversion of T-chord: G7 CI

Sonorities formed by combining 4-27 in its 'prime' form with each of the transpositions of its inverted form

The 'prime' form is 0,2,5,8. In the table below, it is combined first with its T_0I transformation. That form is then transposed by successive values t=1 (by ascending half-step) and the resulting set-class name is given in the rightmost column.

4	7	10	0	7-34 ('diatonia seconda')
5	8	11	1	6-z42 complement of octa 6-z13
6	9	0	2	6-z49 CII Afternoon of a Faun
7	10	1	3	8-23 hyper-diatonic octad
8	11	2	4	6-z28 complement of 6-z49
9	0	3	5	6-z50 CII complement of 6-z29
10	1	4	6	8-24 Berg's *Wozzeck*
11	2	5	7	6-z29 complement of 6-z50
0	3	6	8	6-z23 CII complement of 6-z45
1	4	7	9	8-20
2	5	8	10	5-34 Debussy hallmark
3	6	9	11	8-28 CII (complete octatonic)

Genera matrix: 7-31 (octa), 7-32 (harmonic minor), 7-21 ("hexatonic"), 7-34 ("diatonia secunda")

	G1	G2	G3	G4	G6	G7	G8	G9	G10	G11	G12	
7-21				o			o	o	o			4
7-31	o	o	o		o	o		o			o	7
7-32	o	o	o					o			o	5
7-34		o	o							o	o	5
Counts:	2	3	3	1	1	1	1	3	1	1	3	

G1 G2 G3 G4 G6 G7 G8 G9 G10 G11 G12

Squo Indices in Descending Order with Genera

.243: G9 (atonal-tonal)
.222: G3 (diminished), G12 (dia-tonal)
.153: G2 (whole-tone)
.151: G4 (augmented)
.114: G11 (dia)
.105: G1 (atonal)
.081: G8 (atonal), G10 (atonal-tonal)
.074: G6 (semichroma), G7 (chroma-dia)

Comments:

G2,G3, and G12 are identical w/r set membership. G11 are subcolumns of G2, G3, and G12. G4, G6, and G7 are subcolumns of G9. Thus, the reduced matrix consists of G3 or G12, based upon Squo, and G9. Since 7-31 has the largest spread, it can be interpreted as the "most important" septad.

TRANSPOSITIONS OF PAIRS OF 4-27 IN THE V7 FORM

Note symmetrical arrangement, with 6-30 at the fulcrum. (Inverse-related values of t produce members of the same set class.) Combinations of two 'half-diminished sevenths' will produce the same results.

Basic form of 4-27 (arbitrary): {0,3,6,8}

t = 1
8-18: {0,1,3,4,6,7,8,9}

t = 2
7-34: {2,3,5,6,8,10,0}

t = 3
* 6-27: {3,6,8,9,11,0} Coll. II

t = 4
7-26: {3,4,6,7,8,10,0}

t = 5
7-29: {11,0,1,3,5,6,8}

t = 6
* 6-30: {0,2,3,6,8,9} Coll. II

t = 7
7-29: {6,7,8,10,0,1,3}

t = 8
7-26: {11,0,2,3,4,6,8}

t = 9
* 6-27: {0,3,5,6,8,9} Coll. II

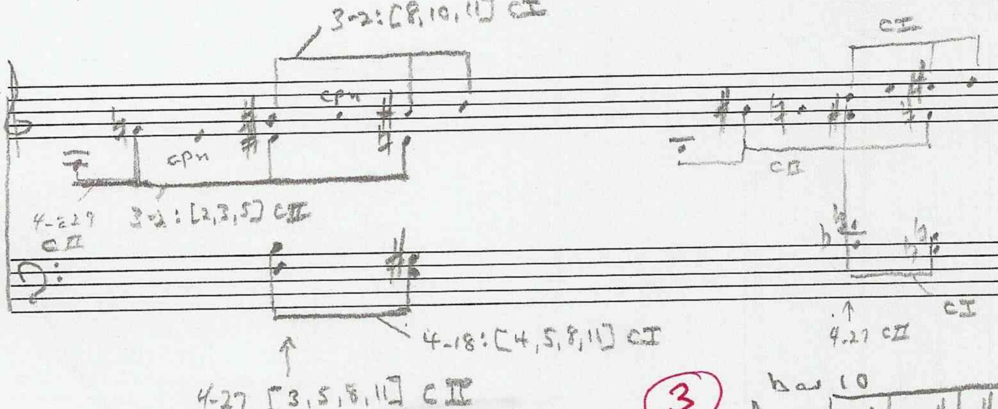
t = 10
7-34: {0,1,3,4,6,8,10}

t = 11
8-18: {11,0,2,3,5,6,7,8}

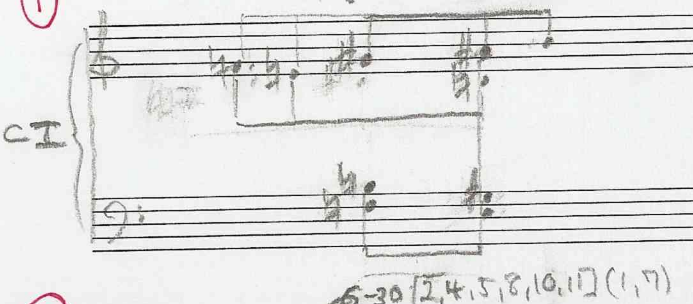
SEE SAME LINEAR ANALYSIS ARTICLE – Projection of 4-27 & sketch in Body

Passing Octatonic Readings of Prelude's beginning

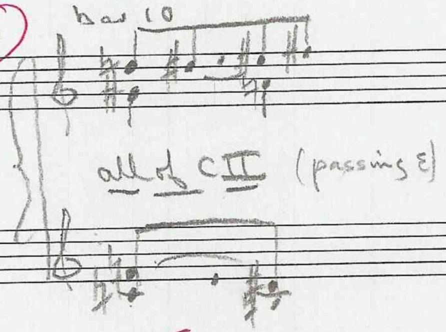
Polyocta: CI / CII



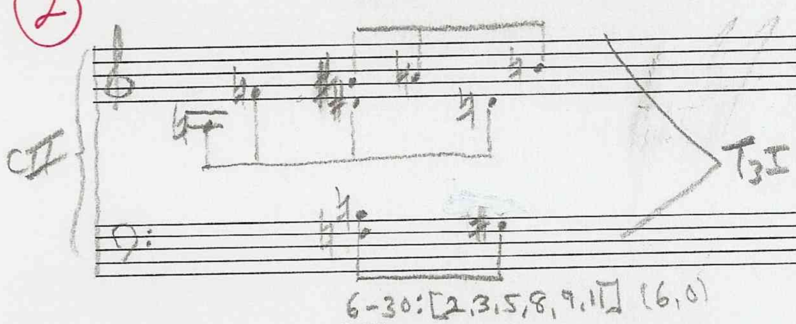
① CI



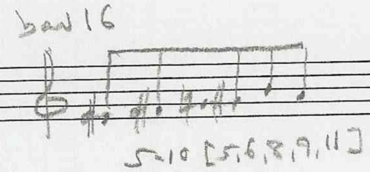
③

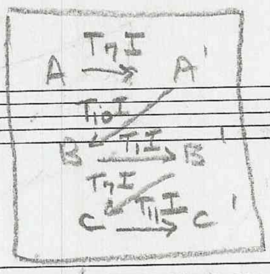


② CII

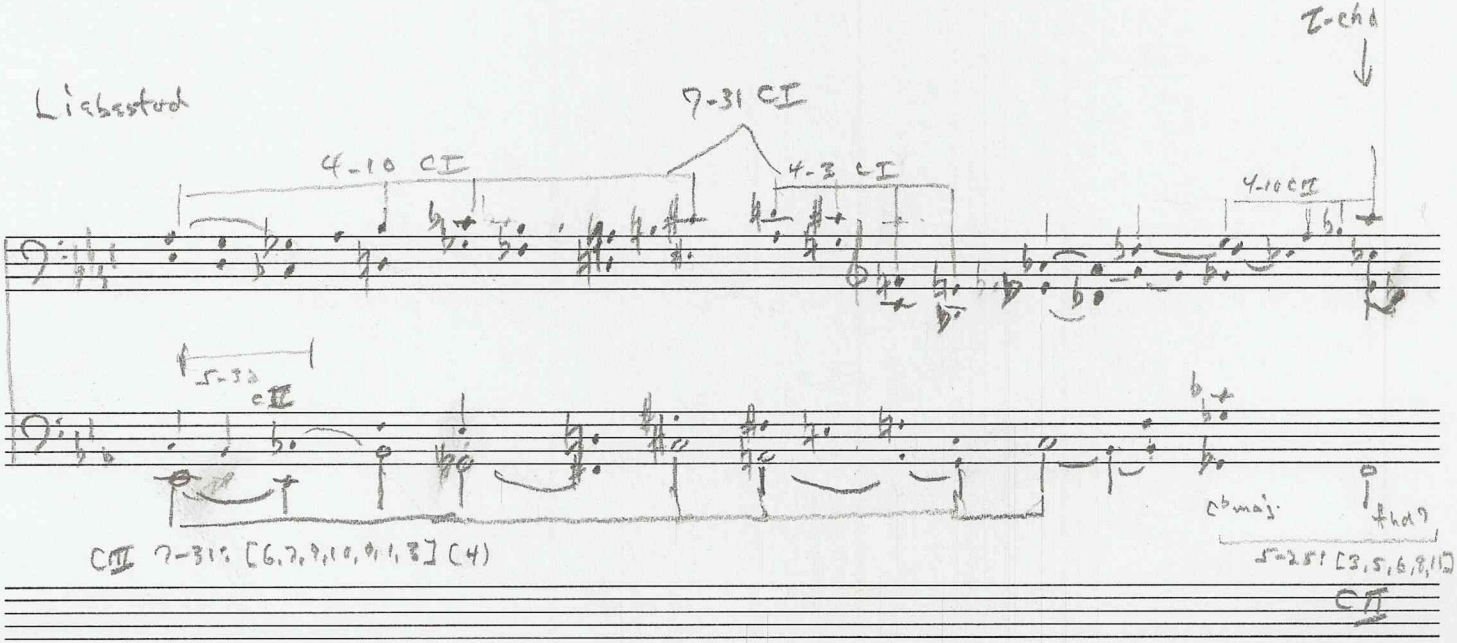


④



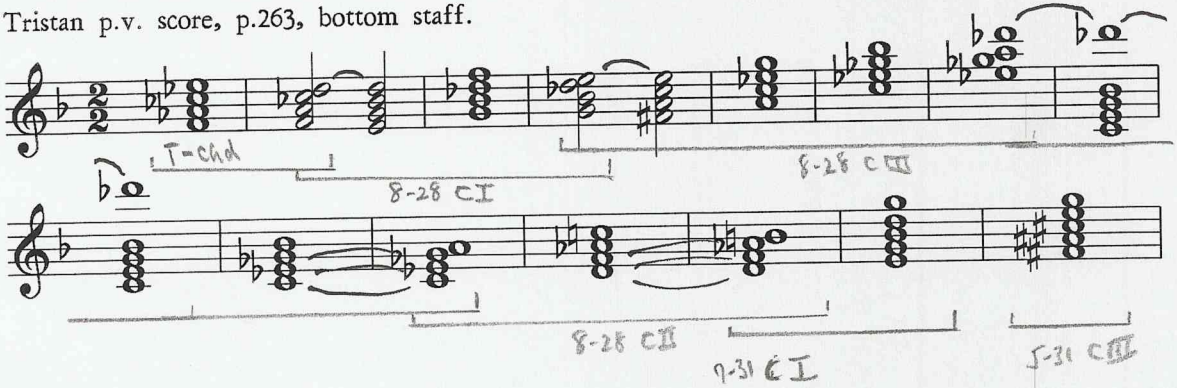


T10I → T1I = T11I


Liebestod
7-31 CI
4-10 CI
4-3 CI
4-10 CII
5-33 CII
CII 7-31: [6,7,9,10,0,1,3] (4)
Cbmaj.
Fdom7
5-25: [3,5,6,8,11]
CI
I-chd

~~Tristan~~
acta Passage
1. p. 5 staff 5
2. p. 7 top 2 staffs

Tristan p.v. score, p.263, bottom staff.



Naive Voice-Leading Derivatives of 4-27

0	2	5	8	4-27
11	2	5	8	4-28
1	2	5	8	4-18
0	1	5	8	4-20
0	3	5	8	4-26
0	2	4	8	4-24
0	2	6	8	4-25
0	2	5	7	4-23
0	2	5	9	4-26

N.B. 4-26 twice

Genera Matrix for Voice-Leading Derivatives of 4-27

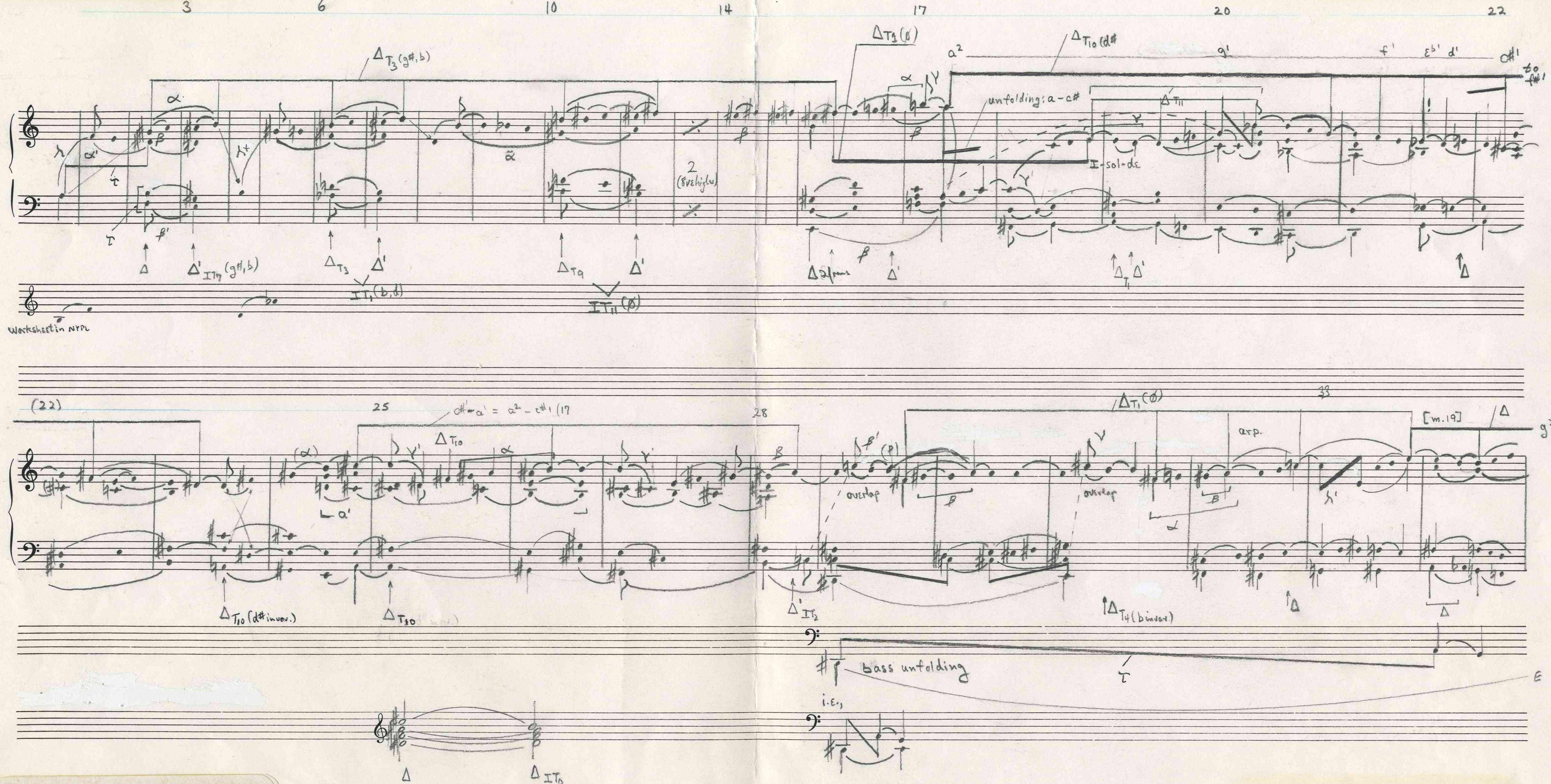
	G1	G2	G3	G4	G9	G10	G11	G12
4-18	o		o		o			
4-20						o		
4-23							o	
4-24		o		o				
4-25		o						
4-26								o
4-27		o	o					o
4-28			o					
Counts:	1	3	3	1	1	1	1	2

Squo Indices in Descending Order with Genera

.099: G3 (diminished)
.071: G4 (augmented)
.066: G2 (whole-tone)
.063: G12 (dia-tonal)
.049: G11 (dia)
.034: G9 (atonal-tonal), G10 (atonal-tonal)
.022: G1 (atonal)

Wagner, Prelude to Tristan und Isolde

A.F. Jan. 13, 1987



35 'sehnsucht' '6-prg.' 43 [m.25] 45

expansion

arp

N.B. Tritones

arp: a-b♭-d♭

arp

10 - - 10 -

D# m.29

[see m.52] 4.24 4.25 Δ' 4.25

Δ_{IT_6} T_6 Δ'_{IT_2} (6 additional) 5-31 $\Delta'_{IT_{11}}$ $\Delta_{(T_2)}$

48 [m.29] to g#1 m.56 [parallel ends] 54 [m.17: t = 4] 56 [m.17 59

Δ_{T_3}

arp: a'-c³-e³

'I-

1 overlap

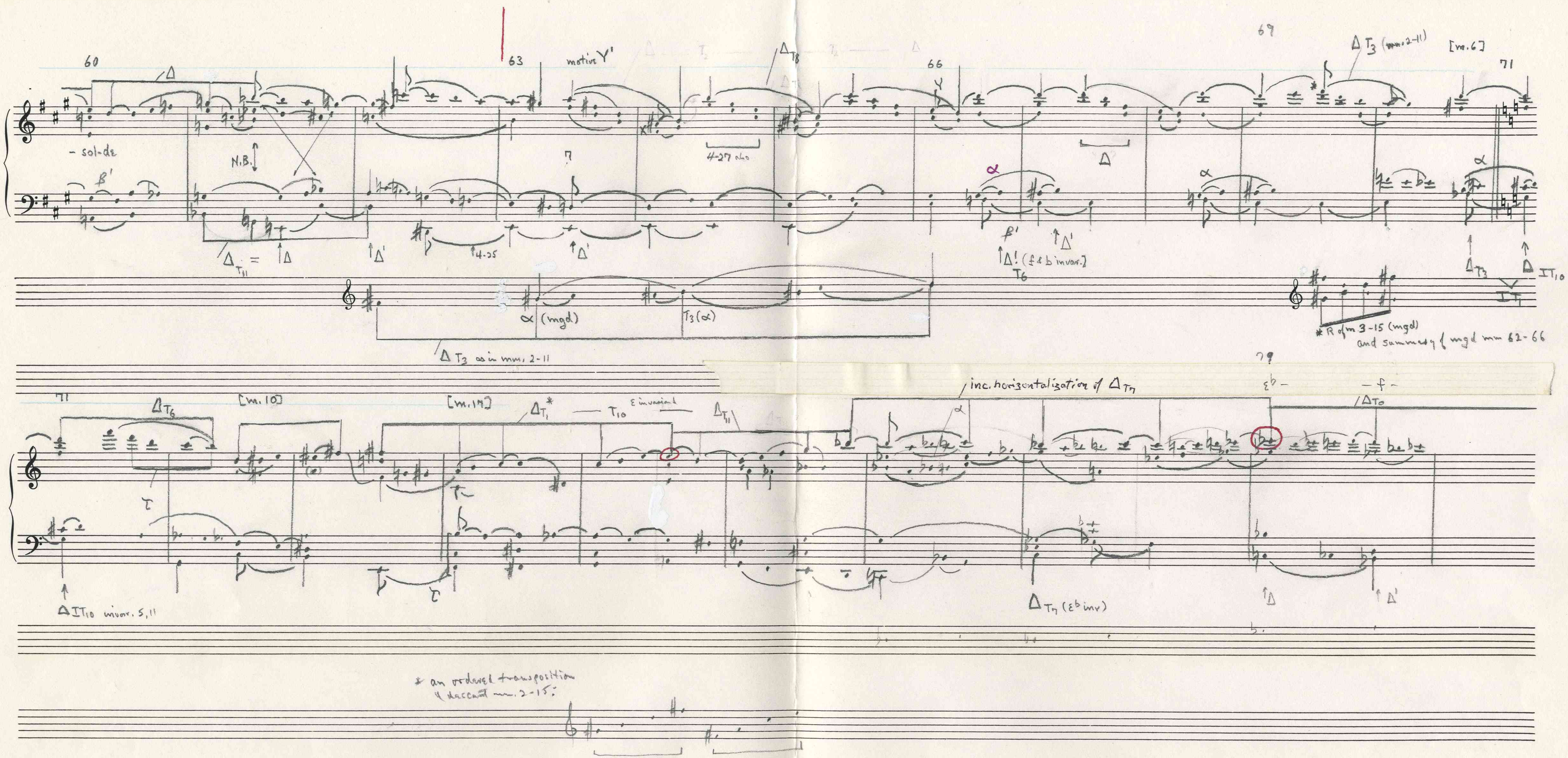
Δ'_{IT_0} 4-24 as in m.36

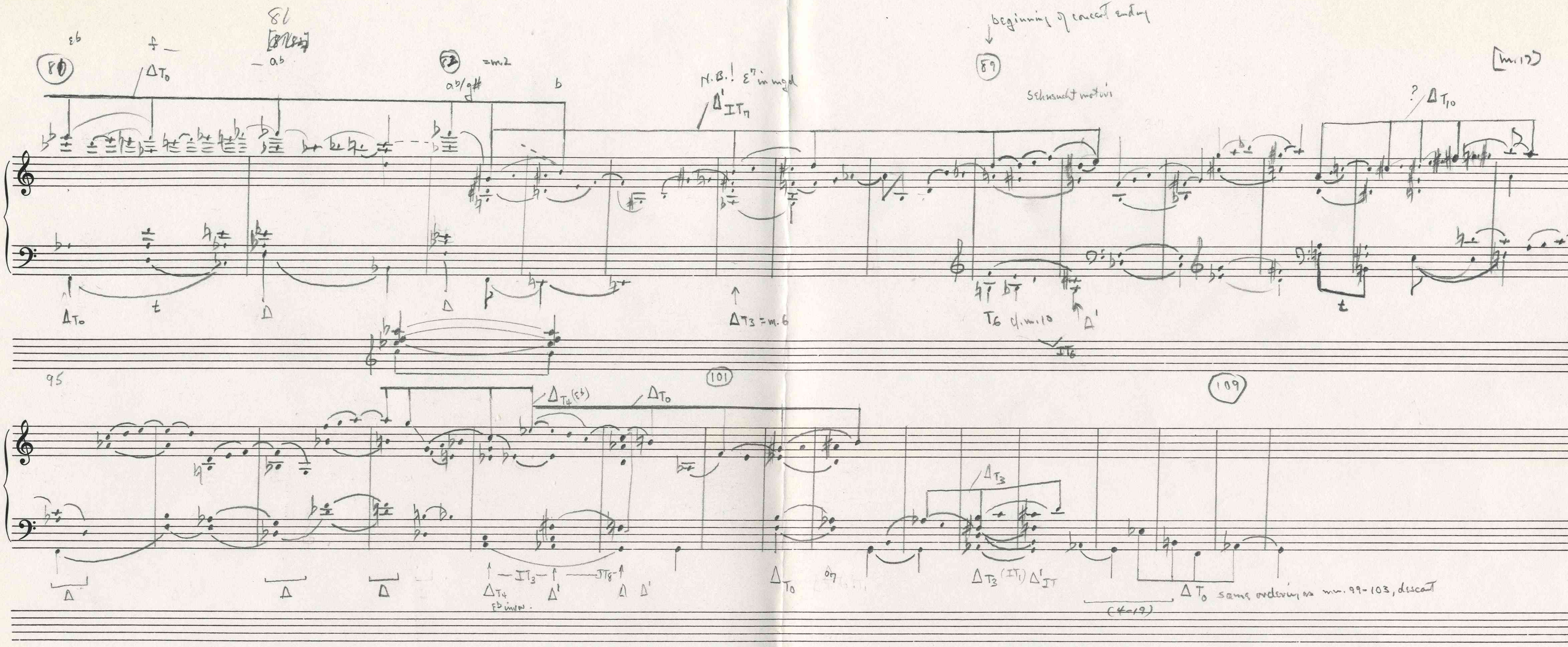
$\Delta_{T_{10}}$ pc3 inv.

Bass: mm. 48-57

ΔT_{10}

= T_7 of first linear projection


60
63
motive Y'
66
69
71
- sol-de
N.B.
4-27
[m.6]
ΔT_3 as in mm. 2-11
$T_3(\alpha)$
α (mgd)
* R of m 3-15 (mgd)
and summary of mgd mm 62-66
[m.10]
[m.14]
inc. horizontalization of Δ_{T_7}
Δ_{T_7} (ε^b inv)
ΔIT_{10} invar. 5,11
* an ordered transposition


80
beginning of concert ending
89
Sehnsucht motive
[m. 17]
ΔT_0
95
101
109
ΔT_3 = m. 6
same ordering as mm. 99-103, descant

Example

Forms of Δ

N. B. Wagner sketches of intervocies - see Babey's transcription

6-Z42; [2,3,4,5,8,11]

4-18 4-18 4-18 includes ?

ORDERED INVERSION "Reordering"

8 11 8 11
3 4 3 2
11 8 11 8
5 2 5 4

Ex. 9 ✓ display rotations in a table [not the whole picture] B

Vertical ordering

5 3
4 6
6 4

I T10

5 3
4 3
6 4

6a

4-5-3

3-3-4 even

unfolding: a² - c#¹

2-5-3

3-3-4

→ 345 from rotation of Δ

↓ in notation

Ex. 10

C

cyclic notation (0123)

(9) 3
5 = 5 = bip 345
4 4

6b

→ 3-3-4 as in B even

2-5-3 → 235 also even

See complete sketch no, not unfolding

?f² - b²

D

6c

→ 2-3-3

6.25 ("Love philtre")

Includes

2 - 5 - 3

f

6d

2 5 = 235
3 8

retrograde of second inversion form in D

→ 2-3-3

Retrograde images

3-3-2 odd

4-26

Δ Δ'

Desire

include in text as intro to consideration of ordered inversion forms

Refer to Lewin, Inversional balance ?

6f

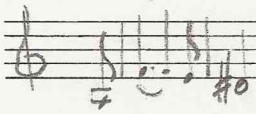
6e

5
2
6

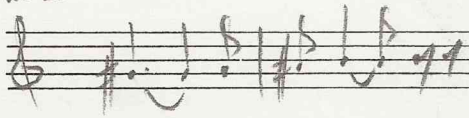
Albert Lavignac, Le Voyage artistique à Bayreuth, Paris, 1897

Leitmotives in the Prelude - based upon reappearances in Act I

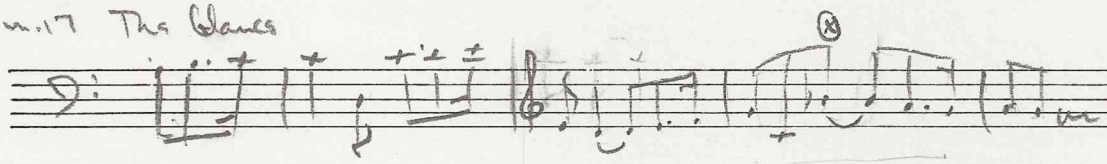
m.1 Confession of Love [4-5]



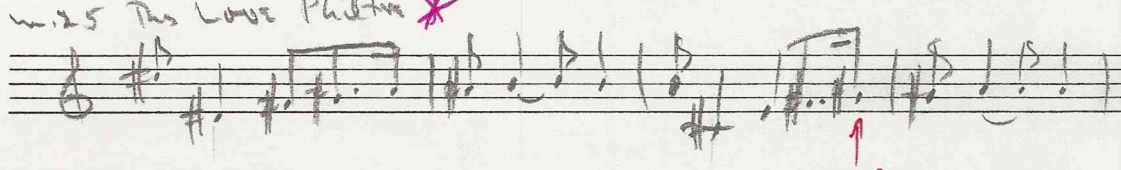
m.2 Desire [3-7]



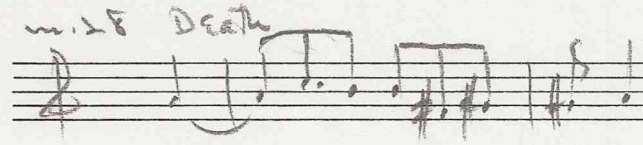
m.17 The Glances 4-10 / 5-22



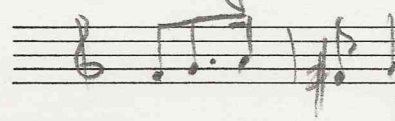
m.25 The Love Philtre *



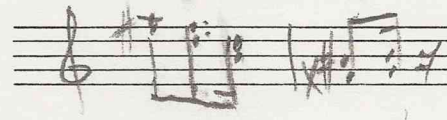
m.28 Death



m.36 Magic Casket



m.63 Deliverance by Death



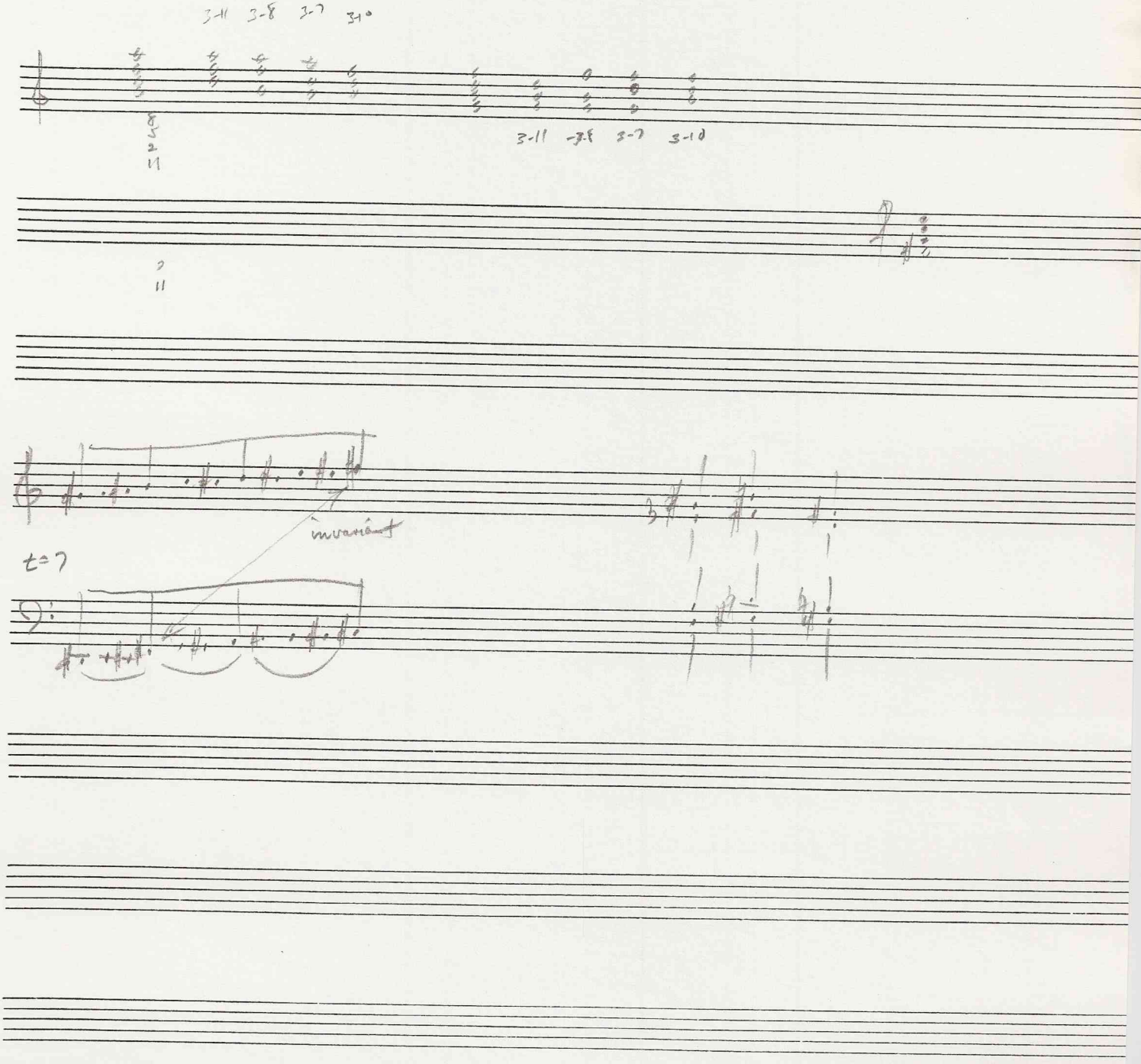
become delta in final statement.

4-7

* Love

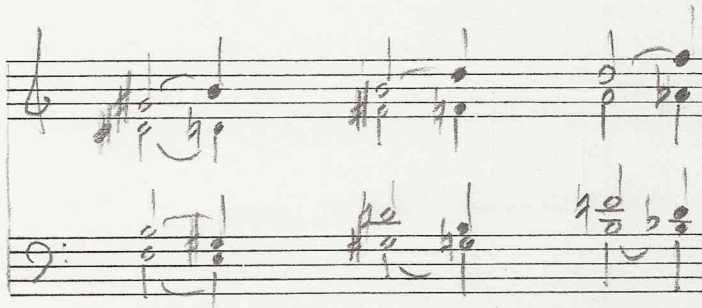
Δ Δ'

IT_0 inver. 3, 6, 9 (3-10)


3-11 3-8 3-7 3-10
3-11 3-8 3-7 3-10
invariant
t=7

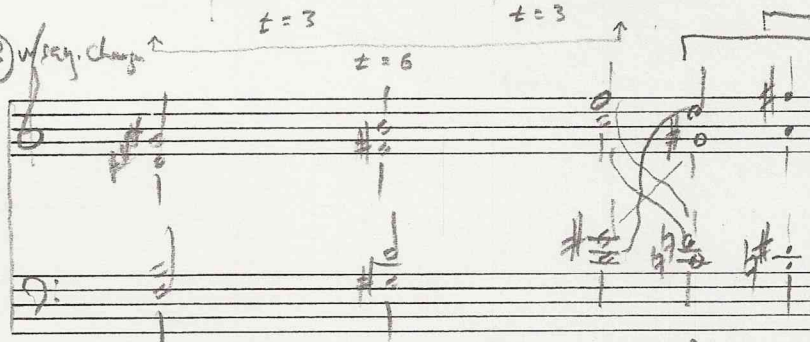
EXAMPLE

(A) with sequences maintained: t = 3



t = 3 t = 3 8-28

(B) w/seq. change t = 6



t = 3 t = 6 ↑ arranged (voiced) as in final version

8 forms 4-27:

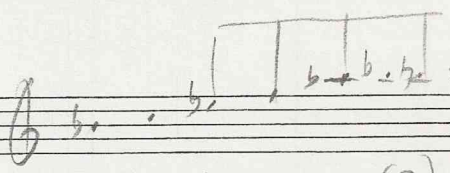
(only 2 in present)

To Do: VOICE-LEADINGS FROM Δ

t. Δ'

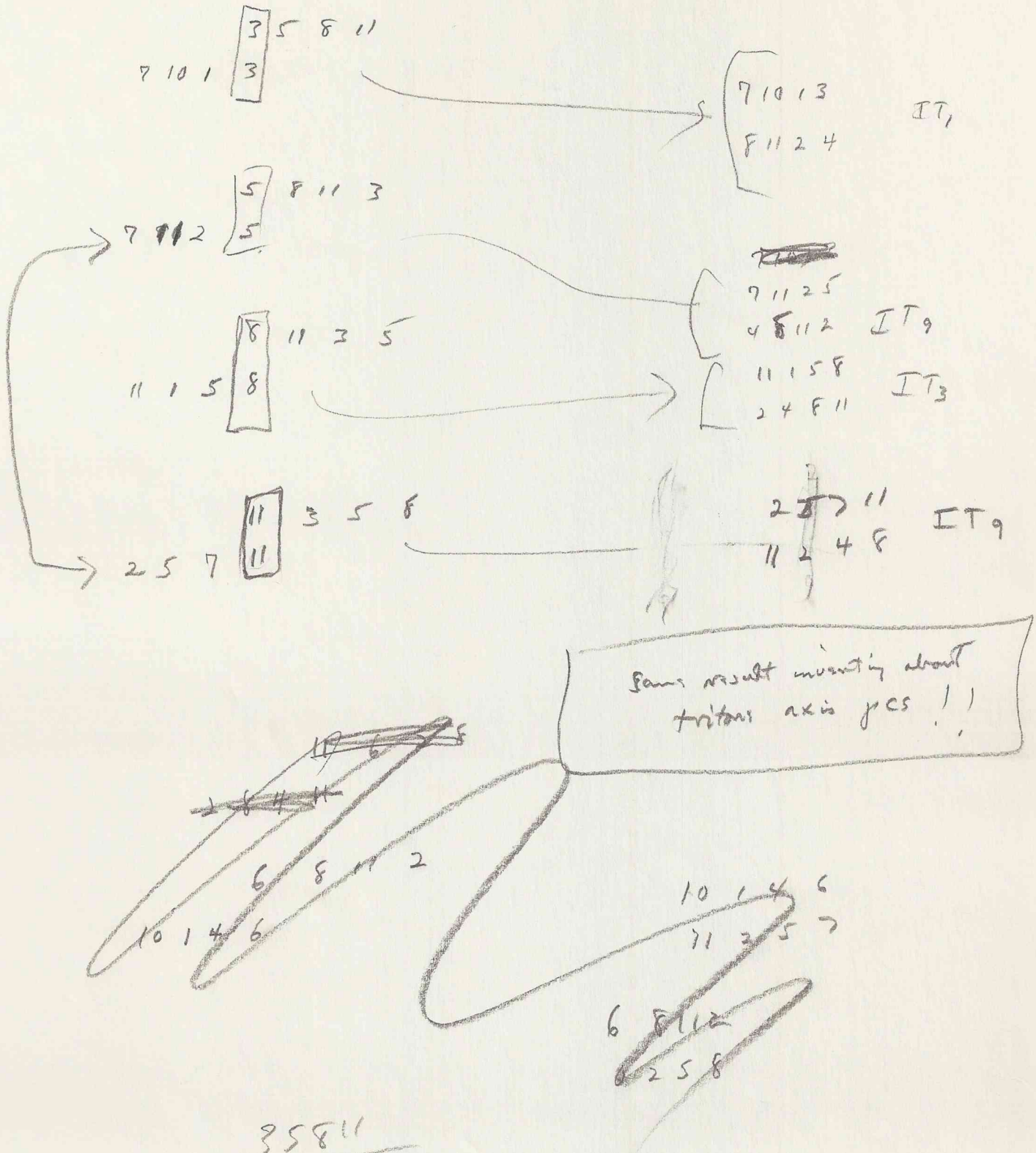
to 4-26

to 4-25



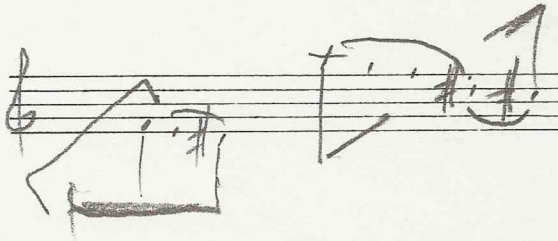
(A) (B)

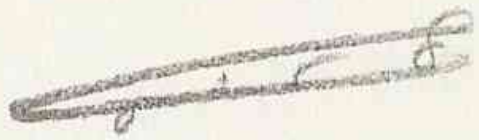
Inversions of T_1 about each pc on 'axis'



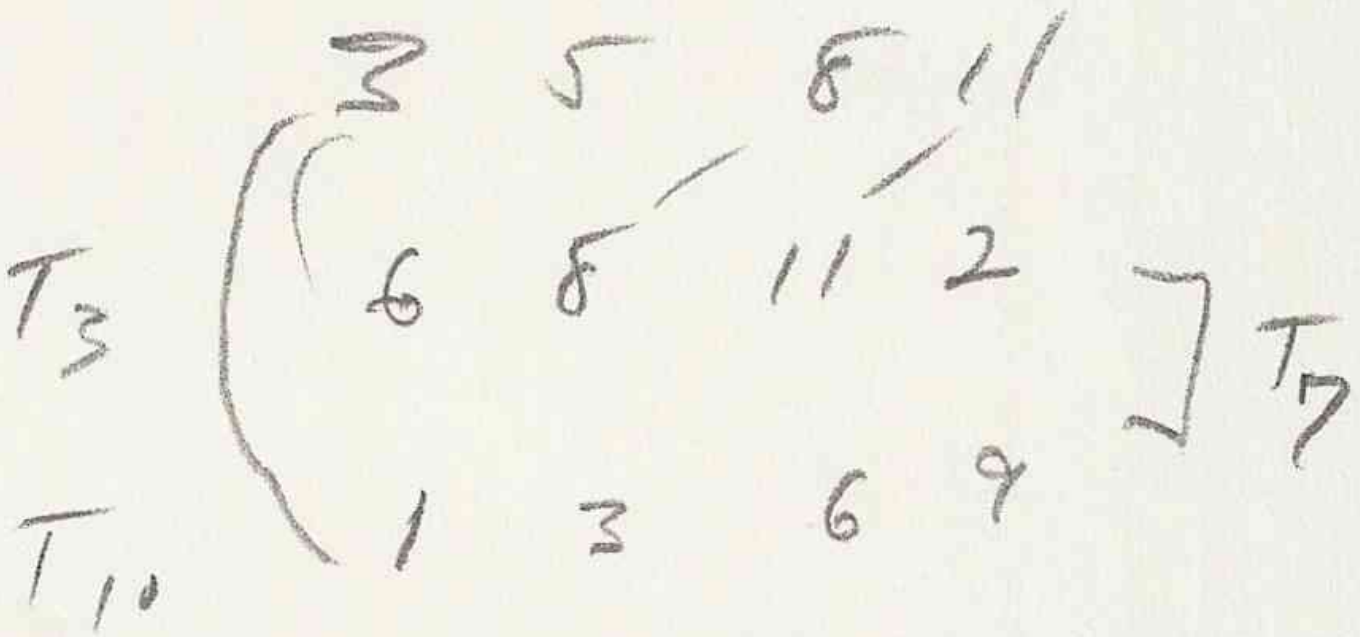
Chemical approach

Harmonic and intervallic
superstructures



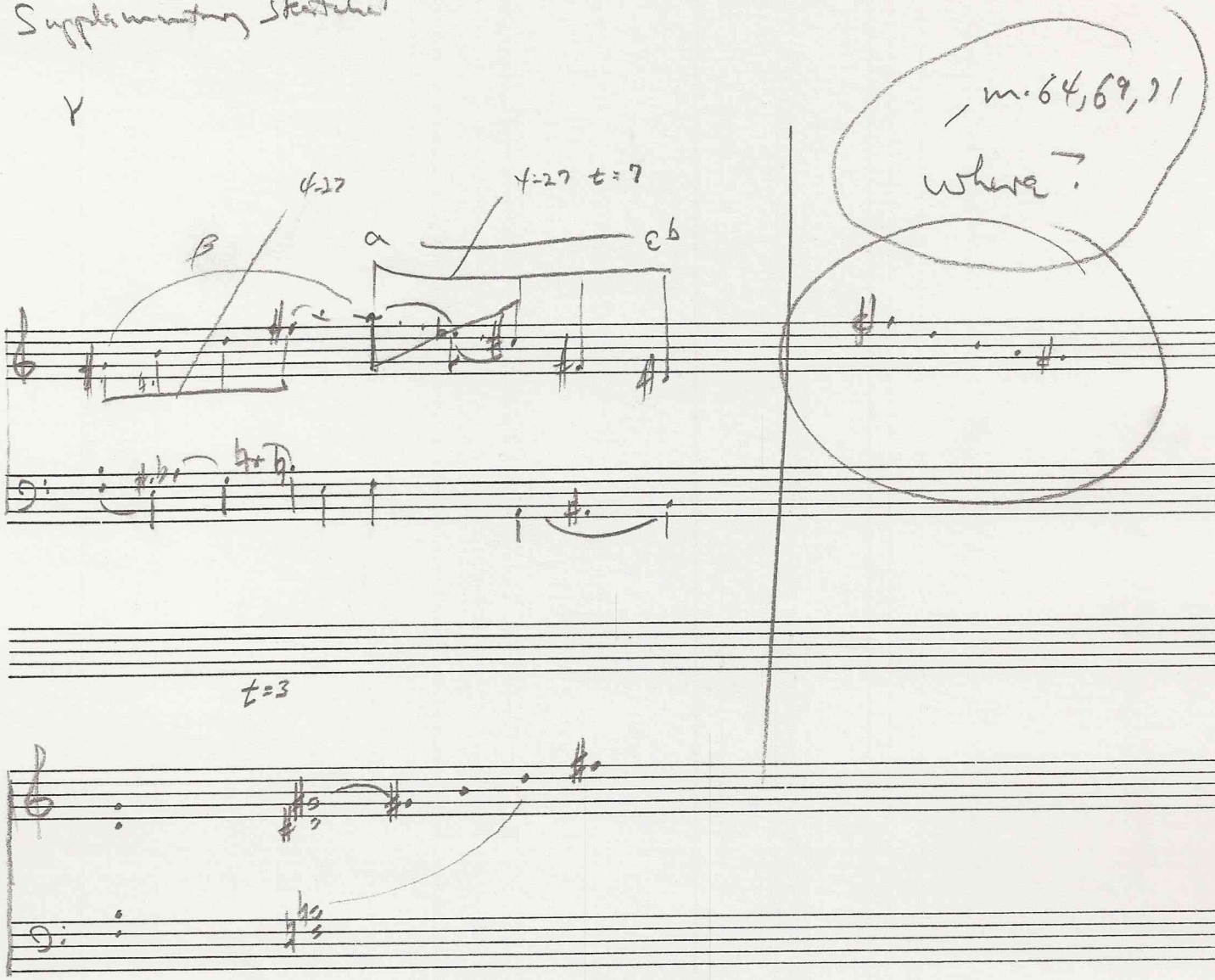


3 5 8 11



Supplementary sketches

Y



S. Hefling

mark Leitmotives

to 19th c. file

Tristan, Einleitung, opening