

~~REMEMBER CHORDS FOR MIXED 2'S~~
~~NEXT: MIXED 4'S~~

~~2)~~ THEN MINOR TRIAD CONFIGURATIONS

TO BE DECIDED: WHAT ARE BASIC HARMONIES?

DOMINANT SEVENTHS

MINOR SEVENTHS

HALF-DIMINISHED SEVENTHS

Need systematic study of how atonal harmonies arise
in tonal contexts. A good ~~xxxxxx~~ example is 5-31
at the beginning of the first orchestral interlude in Gurrelieder.

Formation of cross products for diatonic and chromatic

Since the "Horizontal composites" have already taken care of "matched" pairs, the number of choices is reduced from that given by the appropriate mathematical expression.

Diatonic

Chromatic

11
7
4
1

10
8
5
3

⊗ 11 & 10 are "matched pairs"
7 & 8 " " " " etc.

Combinations depend upon partitions (ordered)

partitions of size two can only be (1 1)--1 from first list, one from second --thus 12 in all

partitions of size three: either (1 2) or (2 1)-- thus 24 in all

partitions of size four: either (1 3) (2 2) or (3 1). (2 2) is identical to (2 2), hence can only be taken once

The cross-product 5's, if allowed, would be

11	10	8	5	3	5-29
7	10	8	5	3	5-23
4	10	8	5	3	5-14
0	10	8	5	3	5-35
10	11	7	4	0	5-Z38
8	11	7	4	0	5-21
5	11	7	4	0	5-20
3	11	7	4	0	5-21

of these, characteristic atonal sets are 5-Z38, 5-20, and 5-21

TRIADS-MINOR

DIATONIC 1's	CHROMATIC 1's	HORIZONTAL COMPLETES	DIATONIC 2's	DIATONIC 3's	CHROMATIC 2's	CHROMATIC 3's	CHROMATIC 4's	CHROMATIC 5		
4-20: [2,5,9,10]	4-27: [9,11,2,5]	5-238: [9,10,11,2,5]	5-27: [2,5,7,9,10]	6-225: [2,4,5,7,9,10]	5-31: [8,9,11,2,5]	5-21: [1,2,5,6,9]	6-27: [5,6,8,9,11,2]	6-27: [1,2,3,5,8,9]	7-31: [2,3,5,6,8,9,11]	8-27: (4,7,10,0)
4-22: [2,5,7,9]	4-18: [2,5,8,9]	5-236: [2,5,7,8,9]	5-20: [9,10,2,4,5]	5-32: [5,6,9,11,2]	5-13: [1,2,3,5,9]	6-30: [2,3,5,8,9,11]	6-15: [1,2,3,5,6,9]	7-32: [5,6,8,9,11,1,2]		
4-14: [2,4,5,9]	4-17: [2,5,6,9]	5-11: [2,4,5,6,9]	5-23: [2,4,5,7,9]	5-28: [9,11,2,3,5]	6-228: [8,9,11,1,2,5]	6-228: [8,9,11,1,2,5]	7-28: [8,9,11,1,2,3,5]			
4-14	4-229: [2,3,5,9]	5-5: [2,3,4,5,9]		5-26: [9,11,1,2,5]	6-249: [2,3,5,6,9,11]	6-249: [2,3,5,6,9,11]	7-26: [9,11,1,2,3,5,6]			
	4-19: [1,2,5,9]			5-16: [2,5,6,8,9]	6-31: [5,6,9,11,1,2]	6-31: [5,6,9,11,1,2]	7-238: [1,2,3,5,6,8,9]			
				5-19: [2,3,5,8,9]	6-21: [9,11,1,2,3,5]	6-21: [9,11,1,2,3,5]				
				5-22: [1,2,5,8,9]	6-213: [2,3,5,6,8,9]	6-213: [2,3,5,6,8,9]				
				5-16: [2,3,5,6,9]	6-219: [1,2,5,6,8,9]	6-219: [1,2,5,6,8,9]				

complements

All displacements of 5th produce 7-10: [2,5,7,8,9,10,11]

⊗ Admissible?

TRIADS - MAJOR

DIATONIC 2's	CHROMATIC 2's	COMPOSITES (HORIZONTAL) ⊕	COMPOSITES (VERTICAL) DIATONIC 2's	DIATONIC 3's	DIATONIC 4	CHROMATIC 2's	CHROMATIC 3's	CHROMATIC 4	MIXED 2's	MIXED 3's	MIXED 4's	MIXED 5's
4-26: [6,9,11,2]	4-19: [2,6,9,10]	5-237: [6,9,10,11,2]				5-13: [2,6,8,9,10] ↑ 3-8	6-15: [2,5,6,8,9,10] ↑ 4-27: [2,5,8,10]	5 5 7-238: [11,0,1,4,7] ↑ 4-23				
	4-229: [2,6,8,9]	4-229				5-21: [2,5,6,9,10] ↑ 3-11	6-217: [2,3,6,8,9,10] ↑ 3-9					
4-14: [2,6,9,9]	4-229: [2,6,8,9]	5-5: [2,6,7,8,9]				(5-22: [2,3,6,9,10]) ↑ 3-9	6-219: [2,3,5,6,9,10] ↑ 3-9					
4-22: [2,4,6,9]	4-4: [2,5,6,7]	5-11: [2,4,5,6,9]				5-16: [2,5,6,8,9] ↑ 3-3	6-213: [2,3,5,6,8,9] 3-7					
4-20: [1,2,6,9]	4-18: [2,3,6,9]	5-238: [1,2,3,6,9]				5-19: [2,3,6,8,9] ↑ 3-7						
4-22: [2,4,6,9]						↑ 3-8 only 3-8 repeats						

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⊕ MULTIPLE DISPLACEMENTS
 OF 5th: 6-239: [6,8,9,10,11,2]
 OF 3rd: 7-2: [2,4,5,6,7,8,9]
 OF 6th: 6-240: [1,2,3,4,6,9]

PROBLEMS: (1) SHOULD "HORIZONTAL COMPOSITES" BE ADMITTED?
 (2) IN CASE AN EMBELLISHING NOTE HAS MORE THAN ONE NOTE OF RESOLUTION [USE CROSSED SLURS? - E.G. X
 a) avoid // 5th]

PROBLEM: NEED TO ACCOUNT FOR "EMBELLISHING" COLLECTIONS THEMSELVES AS WELL AS TOTAL CONTRIBUTION ARE SHOWN BY UP ARROWS

⊕ NOT POSSIBLE BECAUSE "HORIZONTAL COMPOSITES"
 ⊕ CROSS PRODUCTS OF DIATONIC & CHROMATIC, EXCLUDING "HORIZONTAL COMPOSITES" [?]

MIXED 2'S (YIELD 5-NOTE SETS)

MIXED 3'S (YIELD HEXACHORDS)

MIXED 4'S

Handwritten musical notation on a grand staff (treble and bass clefs) showing various chords and intervals. The notation includes notes, stems, and accidentals, with handwritten labels below each chord indicating its structure and the notes it yields.

MIXED 2'S (YIELD 5-NOTE SETS):

- 5-25: [6, 8, 9, 11, 12] (3-10)
- 5-236: [0, 3, 4, 6, 9] (3-5)
- 5-32: [5, 6, 9, 11, 12] (3-10)
- 5-21: [6, 9, 10, 11, 12] (3-11)
- 5-32: [6, 9, 11, 12, 3] (3-11)
- 5-20: [1, 2, 6, 8, 9] (3-4)
- 5-217: [6, 7, 9, 10, 2] (3-11)
- 5-21: [1, 2, 5, 6, 9] (3-12)
- 5-11: [2, 5, 6, 7, 9] (4-12)
- 5-218: [2, 3, 6, 7, 9] (3-8)
- 5-30: [2, 4, 6, 9, 10] (3-8)
- 5-24: [2, 4, 6, 8, 9] (3-4)

MIXED 3'S (YIELD HEXACHORDS):

- 6-27: [5, 6, 8, 9, 11, 12] (4-28)
- 6-212: [2, 3, 4, 6, 8, 9] (3-4)
- 6-250: [2, 3, 6, 8, 9, 11] (3-11)
- 6-16: [6, 8, 9, 10, 11, 2] (3-6)
- 6-249: [2, 3, 5, 6, 9, 11] (3-8)
- 6-14: [2, 5, 6, 7, 9, 10] (4-26)
- 6-219: [2, 3, 6, 7, 9, 10] (3-11)
- 6-210: [2, 3, 5, 6, 7, 9] (3-6)
- 6-22: [2, 4, 6, 8, 9, 10] (3-8)
- 6-31: [2, 4, 6, 9, 10] (3-10)
- 6-217: [2, 3, 4, 6, 9, 10] (3-5)
- 6-33: [2, 4, 6, 8, 9, 11] (3-11)

MIXED 4'S:

- 7-31: [4, 7, 10, 0, 1] (4-27)
- 7-21: [8, 11, 0, 3, 4] (4-27)
- 7-26: [8, 11, 0, 1, 4] (4-22)
- 7-15: [11, 0, 1, 5, 7] (4-19)
- 7-21: [11, 0, 3, 4, 7] (4-26)
- 7-26: [8, 10, 0, 1, 4] (4-24)
- 7-29: [5, 7, 10, 0, 1] (4-20)
- 7-32: [7, 10, 0, 3, 4] (4-27)
- 7-238: [5, 8, 11, 0, 1] (4-18)
- 7-26: [8, 11, 0, 3, 4] (4-25)
- 7-35: [3, 5, 7, 10, 0] ["Amaj9"] (4-26)
- 7-32: [11, 0, 2, 5, 8] (4-28)