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Pitch class sets

Many concepts in the set theory of pitch class are best observed along a sliding scale of concreteness or abstractity. A concept like a pitch, for example, is very concrete, while the pitching pitch is a little more abstract. We can make a pitch, but we can't really do pitch lessons. We've seen similar examples in the spacing field. The invited pitch intervals are associated with a very specific sound (for example, +15); Uterm pitch class intervals (for example, Class 1 interval) are less life or real. A basic concept in team theory of the level of the pitch is that these levels of concrete and abstraction surround not only the pitch and the interval, but also groups of height rates. These groups of pitch classes are called sets of pitch classes. We've already seen sets of pitch lessons, although we didn't really call them that. When we take a set of characters out of a music transition and put them in regular order, this set of characters is a pitch class set. As we've seen in the classroom, a very interesting way of looking at a lot of post-tonal music is by studying the transposition relationship and the reversal between sets of pitch class. In the short example below (from Bartok's theme and reflection) you will notice that the right hand of the two sections is related to T5, as well as the left hand. Within each passageway, the right and left hands are T8I _and _T6I, respectively. For a pitch class set to be transpositionally or in-between with other pitch class features, they must share the same collection of intervals. This is very easily perceived by remember that all major and minor triads have the same interval content (M3, m3, and P5). The big triads are transposition-related, while large, minor triads are correctly linked. The same diagnosis applies to bartok's subject matter and reflection. The four teams of the pitch department in these two segments have the same spacious content so we can label transposition relationships and different relationships between them. All pitch class sets that are transposition-related and interdependently belong to the same defined class, and are represented by the same frame shape. We follow a simple process to put the class pitch in a superb way: put the class pitch set in normal order. Pass it so the first pitch is 0. Make the results step 2 (each inversion will work) and put the result in regular order. Pass it so the first pitch is 0. Compare the results in steps (2) and (4). The Prime form is the most compact version. The following example illustrates the use of a motive from Bartok's subject matter and reflection. Share Set 3-1 includes three possible rounds/reversals, the normal shape of which is the smallest pie or the most compact shape. [1] Order List See: List of lines of sounds and series. Sets are listed next to their complements. B-marked inversions (unchecked sets A or B are symmetrical). T and E are used conventionally in groups to specify 10 and 11, respectively, as single characters. There are two slightly different methods of obtaining a normal form. [a] Result is two different standard form sets for the same port number in several cases. The alternate comment for these chords appears in the footnotes. [3] Elliott Carter previously produced (1960-1967) a numbered list of sets of pitch classes, or chords, as Carter called them, for his own use. [5] Donald Martino produced tables of hexachords, tapcords, titchords and pentachurds for combinatorials in his essay, The Origin Set and Its Aggregated Configurations (1961). [7] Portano. Preliminary vector carterno interval form. Possible audiovisual light for Portano. Initial interval form Victor Carter did not. Audio Option Light 0-1 [] <0,0,0,0,0,0>Blank Set 12-1 [0,1,2,3,4,5, 6,7,8,9, T,E] <C,C,C,C,C,6>Play Aggregate 1-1 [0] <0,0,0,0,0,0>Pu Play, P8 11-1 [0,1,2,3,4,5, 6,7,8,9,T] <T,T,T,T,T,T,5>Play ... 2-1 [0,1] <1,0,0,0,0,0>1 play m2, M7 10-1 [0,1,2,3,4, 5,6,7,8,9] <9,8,8,8,8,4>play ... 2-2 [0,2] <0,1,0,0,0,0>2 Play M2, m7 10-2 [0,1,2,3,4, 5,6,7,8,T] <8,9,8,8,8,4>Play ... 2-3 [0,3] <0,0,1,0,0,0>3 Play m3, M6 10-3 [0,1,2,3,4, 5,6,7,9,T] <8,8,9,8,8,4>Play ... 2-4 [0,4] <0,0,0,1,0,0>4 Play M3, m6 10-4 [0,1,2,3,4, 5,6,8,9,T] <8,8,8,9,8,4>Play ... 2-5 [0,5] <0,0,0,0,0,1>5 Play P4, P5 10-5 [0,1,2,3,4, 5,7,8,9,T] <8,8,8,8,9,4>Play ... 2-6 [0,6] <0,0,0,0,0,0,1>6 Play A4, d5 10-6 [0,1,2,3,4, 6,7,8,9,T] <8,8,8,8,8,5>Play ... 3-1 [0,1,2] <2,1,0,0,0,0,0>4 play ... 9-1 [0,1,2,3,4, 5,6,7,8] <8,7,6,6,6,3>Run ... 3-2A [0,1,3] <1,1,1,0,0,0,0>12 Play ... 9-2A [0,1,2,3,4, 5,6,7,9] <7,7,7,6,6,3>Run ... 3-2B [0,2,3] play ... 9-2B [0,2,3,4,5, 6,7,8,9] Run ... 3-3A [0,1,4] <1,0,1,1,0,0>11 Play ... 9-3B [0,1,3,4, 5,6,7,8,9] <7,6,7,7,6,3>Run ... 3-3B [0,3,4] play ... 9-3A [0,1,2,3,4, 5,6,8,9] Run ... 3-4A [0,1,5] <1,0,0,1,1,0>9 Play ... 9-4B [0,1,2,4,5, 6,7,8,9] <7,6,6,7,7,3>Play ... 3-4B [0,4,5] play ... 9-4A [0,1,2,3,4, 5,7,8,9] Run ... 3-5A [0,1,6] <1,0,0,0,1,1,1>7 Play Vynay Trichord 9-5B [0,1,2,3,5, 6,7,8,9] <7,6,6,6,6,7,4>Play ... 3-5B [0,5,6] play ... 9-5A [0,1,2,3,4, 6,7,8,9] Run ... 3-6 [0,2,4] <0,2,0,1,0,0>3 play ... 9-6 [0,1,2,3,4, 5,6,8,T] <6,8,6,7,6,3>Run ... 3-7A [0,2,5] <0,1,1,0,1,0>10 Play ... 9-7B [0,1,2,3,4, 5,7,9,T] <6,7,7,6,7,3>Run ... 3-7B [0,3,5] Play Trichord Blues (Minimum. pentatonic subset)[8] 9-7A [0,1,2,3,4, 5,7,8,T] play ... 3-8A [0,2,6] <0,1,0,0,0,0,1>8 Play It 6 9-8B [0,1,2,3,4, 6,8,9,T] <6,7,6,7,6,4>Play ... 3-8B [0,4,6] play ... 9-8A [0,1,2,3,4, 6,7,8,T] Run ... 3-9 [0,2,7] <0,1,0,0,0,2,0>5 play sus. Chord 9-9 [0,1,2,3,5, 6,7,8,T] Play <6,7,6,6,8,3>Blues Scale 3-10</6,7,6,6,8,3> </0,1,0,0,2,0> </0,1,0,1,0,1> </6,7,7,6,7,3> </0,1,1,0,1,0> </6,8,6,7,6,3> </0,2,0,1,0,0> </7,6,6,6,7,4> </1,0,0,1,1> </7,6,6,7,7,3> </1,0,1,1,0,0> </7,6,7,7,6,3> </1,0,1,1,0,0> </7,7,7,6,6,3> </1,1,1,0,0,0> </8,7,6,6,6,3> </2,1,0,0,0,0> </8,8,8,8,5,5> </0,0,0,0,0,1> </8,8,8,8,9,4> </0,0,0,0,1,0> </8,8,8,9,8,4> </0,0,1,0,0,0> </8,9,8,8,8,4> </0,1,0,0,0,0> </8,9,8,8,8,4> </1,0,0,0,0,0> </9,8,8,8,8,4> </1,0,0,0,0,0> </T,T,T,T,T,5> </0,0,0,0,0,0> </0,0,0,0,0,0> </0,0,0,0,0,0> </0,0,0,0,0,0> </C,C,C,C,C,6> </0,0,0,0,0,0> </0,0,0,0,0,1>2 6,7,9 ,0,1,2,3,4,9 9-10 ' .'',T] <6,6,8,6,6,4>3-11 ... '''A [0,3,7] <0,0,1,1,1,0>6 9-11 'B [0,1,2,3,5, 6,8,9,T] <6,6,7,7,7,3>3-11 ... '''B [0,4,7] 0|9-11 '' 'A [0,1,2,3,5, 6,7,9,T] ''' 1 [0,4,8] 3-12 ... ' '' <0,0,0,3,0>6,8,9 ,0,1,2,4,5] 9-12 ' ',T] <6,6,6,9,6,3>0,1,2,3] 4-1 ... '''] <3,2,1,0,0,0,0>1 4,5,6,7 ,0,1,2,3] 8-1 ... '] <7,6,5,4,4,2>4-2 ... 'A [0,1,2,4] <2,2,1,1,0,0>17 8-2 ... '''B [0,2,3,4, 5,6,7,8] <6,6,5,5,4,2>4-2 ... '''B [0,2,3,4] 8-2A [0,1,2,3, 4,5,6,8] 4-3 [0,1,3,4] <2,1,2,1,0,0>9 ,0,1,2,3] 8-3 ... ' 4,5,6,9] <6,5,6,5,4,2>4-4 ... 'A [0,1,2,5] <2,1,1,1,1,0>20 8-4 ... '''B [0,1,3,4, 5,6,7,8] <6,5,5,5,5,2>4-4 ... '''B [0,3,4,5] 8-4A [0,1,2,3, 4,5,7,8] 4-5A [0,1,2,6] <2,1,0,1,1,1>22 8-5 ... '''B [0,1,2,4, 5,6,7,8] <6,5,4,5,5,3>4-5 ... '''B [0,4,5,6] 8-5A [0,1,2,3, 4,6,7,8] 4-6 [0,1,2,7] <2,1,0,0,2,1>6 5,6,7,8 ,0,1,2,3] 8-6 '] <6,5,4,4,6,3>0,1,4,5] 4-7 ... '''] <2,0,1,2,1,0>8 4,5,8,9 ,0,1,2,3] 8-7 ... '] <6,4,5,6,5,2>0,1,5,6] 4-8 ... '] <2,0,0,1,2,1>10 4,7,8,9 ,0,1,2,3] 8-8 ... '''] <6,4,4,5,6,3>0,1,6,7] 4-9 ... '] <2,0,0,2,2>2 6,7,8,9 ,0,1,2,3] 8-9 ' '] <6,4,4,4,6,4>0,2,3,5] 4-10 ... '''] <1,2,2,0,1,0>3 5,6,7,9 ,0,2,3,4] 8-10 ... '] <5,6,6,4,5,2>4-11 ... 'A [0,1,3,5] <1,2,1,1,1,0>26 8-11 ... 'B [0,2,4,5, 6,7,8,9] <5,6,5,5,2>4-11 ... '''B [0,2,4,5] 8-11A [0,1,2,3, 4,5,7,9] 4-12A [0,2,3,6] <1,1,2,1,0,1>28 8-12 ... 'A [0,1,3,4, 5,6,7,9] <5,5,6,5,4,3>4-12 ... '''B [0,3,4,6] 8-12B [0,2,3,4, 5,6,8,9] 4-13A [0,1,3,6] <1,1,2,0,1,1>7 8-13 ... '''B [0,2,3,5, 6,7,8,9] <5,5,6,4,5,3>4-13 ... 'B [0,3,5,6] 8-13A [0,1,2,3, 4,6,7,9] 4-14A [0,2,3,7] <1,1,1,2,0>25 8-14 ... 'A [0,1,2,4, 5,6,7,9] <5,5,5,5,6,2>4-14 ... 'B [0,4,5,7] 8-14B [0,2,3,4, 5,7,8,9] 4-z15A [0,1,4,6] <1,1,1,1,1,1>18 8 '-z15B [0,1,3,5, 6,7,8,9] <5,5,5,5,3>4 ... '''-z15B [0,2,5,6] 8-z15A [0,1,2,3, 4,6,8,9] 4-16A [0,1,5,7] <1,1,0,1,2,1>19 8-16 ... '''B [0,1,2,4, 6,7,8,9] <5,5,4,5,6,3>4-16 ... '''B [0,2,6,7] 8-16A [0,1,2,3, 5,7,8,9] 4-17 [0,3,4,7] <1,0,2,2,1,0>13 5,6,8,9 ,0,1,3,4] 8-17 ' '] <5,4,6,6,5,2>4-18 ... '''A [0,1,4,7] <1,0,2,1,1,1>21 ' '. <5,4,6,5,5,3>4-18B [0,3,6,7] 8-18 ... 'A [0,1,2,3, 5,6,8,9] 4-19A [0,1,4,8] <1,0,1,3,1,0>24 ' mM7 8-19B [0,1,3,4, 5,7,8,9] <5,4,5,7,5,2>4-19 ... '''B [0,3,4,8] 8-19A [0,1,2,4, 5,6,8,9] 4-20 [0,1,5,8] ' M7 5,7,8,9 ,0,1,2,4] 8-20 '] <5,4,5,6,6,2>0,2,4,6] 4-21 ... '] <0,3,0,2,0,1>11 - 8-21 ... '''' 21</0,3,0,2,0,1> </5,4,5,6,6,2> </1,0,1,2,2,0> </5,4,5,7,5,2> </1,0,1,3,1,0> </5,4,6,5,5,3> </1,0,2,1,1,1> </5,4,6,6,5,2> </1,0,2,2,1,0> </5,5,4,5,6,3> </1,1,0,1,2,1> </5,5,5,5,5,3> </1,1,1,1,1,1> </5,5,5,5,6,2> </1,1,1,1,2,0> </5,5,6,4,5,3> </1,1,2,0,1,1> </5,5,6,5,4,3> </1,1,2,1,0,1> </5,6,5,5,5,2> </1,2,1,1,1,0> </5,6,6,4,5,2> </1,2,2,0,1,0> </6,4,4,4,6,4> </2,0,0,0,2,2> </6,4,4,5,6,3> </2,0,0,1,2,1> </6,4,5,6,5,2> </2,0,1,2,1,0> </6,5,4,4,6,3> </2,1,0,0,2,1> </6,5,4,5,5,3> </2,1,0,1,1,1> </6,5,5,5,5,2> </2,1,1,1,1,0> </6,6,5,5,4,2> </2,1,2,1,0,0> </7,6,5,4,4,2> </3,2,1,0,0,0> </6,6,6,9,6,3> </0,0,0,3,0,0> </6,6,7,7,7,3> </0,0,1,1,0,0> </6,6,8,6,6,4> </0,0,2,0,0,1> </6,6,8,6,6,4> </0,0,2,0,0,1> </4,7,4,6,4,3> 4-22 ...'A [0,2,4,7] <0,2,1,1,2,0>27 8-22 ' 'B [0,1,2,3, 5,7,9,T] <4,6,5,5,6,2>4-22 ... '''B [0,3,5,7] 8-22A [0,1,2,3, 5,6,8,T] 4-23 [0,2,5,7] <0,2,1,0,3,0>4 5,7,8 ,0,1,2,3] 8-23 ',T] <4,6,5,4,7,2>0,2,4,8] 4-24 '] <0,2,0,3,0,1>16 ' A7 8-24 [0,1,2,4, 5,6,8,T] <4,6,4,7,4,3>0,2,6,8] 4-25 ... '''] <0,2,0,2,0,2>12 ' Fr6 8-25 [0,1,2,4, 6,7,8,T] <4,6,4,6,4,4>0,3,5,8] 4-26 ... '''] <0,1,0,1,2,1,0>14 5,7,8 ,0,1,3,4] 8-26 ' ',T][b] <4,5,6,5,6,2>4-27 ... 'A [0,2,5,8] <0,1,2,1,1,1>29 8-27 'B [0,1,2,4, 6,7,9,T] <4,5,6,5,5,3>4-27 ... '''B [0,3,6,8] 8-27 'A [0,1,2,4, 5,7,8,T] 0,3,6,9] 4-28 ... '''] <0,0,4,0,0,2>5 ' 0|6,7,9 ,0,1,3,4] 8-28 7 ',T] 4 '-z29A [0,1,3,7] <1,1,1,1,1,1>23 '' '' tetrachord 8-z29B [0,2,3,4, 6,7,8,9] <5,5,5,5,3>4 ... '''-z29B [0,4,6,7] 8-z29A [0,1,2,3, 5,6,7,9] 5-1 [0,1,2,3,4] <4,3,2,1,0,0>4,5,6 ,0,1,2,3] 7-1 ... '] <6,5,4,3,2,1>1 5-2 ... '''A [0,1,2,3,5] <3,3,2,1,1,0>7-2 ... 'B [0,2,3,4, 5,6,7] <5,5,4,3,3,1>11 5-2 ... '''''B [0,2,3,4,5] 7-2A [0,1,2,3, 4,5,7] 5-3A [0,1,2,4,5] <3,2,2,2,1,0>7-3 ... 'B [0,3,4,5, 6,7,8] <5,4,4,4,3,1>14 5-3 ... '''''B [0,1,3,4,5] 7-3A [0,1,2,3, 4,5,8] 5-4A [0,1,2,3,6] <3,2,2,1,1,1>7-4 ... 'B [0,1,3,4, 5,6,7] <5,4,4,3,3,2>12 5-4 ... '''''B [0,3,4,5,6] 7-4A [0,1,2,3, 4,6,7] 5-5A [0,1,2,3,7] <3,2,1,1,2,1>7-5 ... 'B [0,1,2,4, 5,6,7] <5,4,3,3,4,2>13 5-5 ... '''''B [0,4,5,6,7] 7-5A [0,1,2,3, 5,6,7] 5-6A [0,1,2,5,6] <3,1,1,2,2,1>7-6 ... 'B [0,1,4,5, 6,7,8] <5,3,3,4,4,2>27 5-6 ... '''''B [0,1,4,5,6] 7-6A [0,1,2,3, 4,7,8] 5-7A [0,1,2,6,7] <3,1,0,1,3,2>7-7 ... 'B [0,1,2,5, 6,7,8] <5,3,2,3,5,3>30 5-7 ... '''B [0,1,5,6,7] 7-7A [0,1,2,3, 6,7,8] 5-8 [0,2,3,4,6] <2,3,2,2,0,1>5,6,8 ,0,2,3,4] 7-8 ... '] <4,5,4,4,2,2>2 5-9 ... '''A [0,1,2,4,6] <2,3,1,2,1,1>7-9 ... 'B [0,2,4,5, 6,7,8] <4,5,4,3,3,2>15 5-9 ... '''B [0,2,4,5,6] 7-9A [0,1,2,3, 4,6,8] 5-10A [0,1,3,4,6] <2,2,3,1,1,1>7-10 ... '''B [0,2,3,4, 5,6,9] <4,4,5,3,3,2>19 5-10 ... '''B [0,2,3,5,6] 7-10A [0,1,2,3, 4,6,9] 5-11A [0,2,3,4,7] <2,2,2,2,0>7-11 ... 'B [0,2,3,4, 5,7,8] <4,4,4,4,1>18 5-11 ... '''B [0,3,4,5,7] 7-11A [0,1,3,4, 5,6,8] 5-z12 [0,1,3,5,6] <2,2,2,1,2,1>7 ... '-z12 [0,1,2,3, 4,7,9] <4,4,3,3,4,2>5 5-13 ... '''''A [0,1,2,4,8] <2,2,1,3,1,1>7-13 ... '''B [0,2,3,4, 6,7,8] <4,4,3,5,3,2>17 5-13 '''B [0,2,3,4,8] 7-13A [0,1,2,4, 5,6,8] 5-14A [0,1,2,5,7] <2,2,1,1,3,1>7-14 ... '''B [0,1,3,5, 6,7,8] <4,4,3,3,5,2>28 5-14 ... '''B -5-14B</4,4,3,3,5,2> </2,2,1,1,3,1> </4,4,3,5,3,2> </2,2,1,3,1,1> </4,4,4,3,4,2> </2,2,2,1,2,1> </4,4,4,4,4,1> </2,2,2,2,2,0> </4,4,5,3,3,2> </2,2,3,1,1,1> </4,5,4,4,2,2> </2,3,2,2,0,1> </5,3,3,4,2> </3,1,0,1,3,2> </5,3,3,4,2> </3,1,1,2,2,1> </3,1,2,1,2,1> </5,4,4,3,3,2> </3,2,2,1,1,1> </5,4,4,4,3,1> </3,2,2,2,1,0> </5,5,4,3,3,1> </3,3,2,1,1,0> </6,5,4,3,2,1> </4,3,2,1,0,0> </5,5,5,5,5,3> </1,1,1,1,1,1> </4,8,4,4,4> </0,0,4,0,0,2> </4,5,6,5,5,3> </0,1,2,1,1,1> </4,5,6,5,6,2> </0,1,2,1,2,0> </4,6,4,6,4,4> </0,2,0,2,0,2> </4,6,4,7,4,3> </0,2,0,3,0,1> </4,6,5,5,6,2> </0,2,1,1,2,0> </4,7,6,4,3,3> 7-14 ...אשחק A [0,1,2,3, 5,7,8] 5-15 [0,1,2,6,8] <2,2,0,2,2,2>6,7,8 ,0,1,2,4] 7-15 ... '] <4,4,4,4,3>4 5-16 ... '''''A [0,1,3,4,7] <2,1,3,2,1,1>7-16 ... '''B [0,1,3,4, 5,6,9] <4,3,5,4,3,2>20 5-16 ... '''''B [0,3,4,6,7] 7-16A [0,1,2,3, 5,6,9] 5-z17 [0,1,3,4,8] ' <2,1,2,3,2,0>' Farben 7-z17 [0,1,2,4, 5,6,9] <4,3,4,5,4,1>10 5 ... '-z18A [0,1,4,5,7] <2,1,2,2,2,1>7 ... '''-z18A [0,1,4,5, 6,7,9][c] <4,3,4,4,4,2>35 5 ... '''-z18B [0,2,3,6,7] 7-z18B [0,1,4,6, 7,8,9] 5-19A [0,1,3,6,7] <2,1,2,2,2,2>7-19 ... 'B [0,1,2,3, 6,8,9] <4,3,4,4,3>31 5-19 ... '''B [0,1,4,6,7] 7-19A [0,1,2,3, 6,7,9] 5-20A [0,1,5,6,8][d] <2,1,1,2,3,1>7-20 ... '''B [0,1,2,5, 7,8,9] <4,3,3,4,5,2>34 5-20 ... '''B [0,2,3,7,8] 6,7,9][e] 5-21 'A [0,1,4,5,8] <2,0,2,4,2,0>7-21 ... 'B [0,1,3,4, 5,8,9] <4,2,4,6,4,1>21 5-21 ... '''B [0,3,4,7,8] 7-21A [0,1,2,4, 5,8,9] 5-22 [0,1,4,7,8] <2,0,2,3,2,1>6,8,9 ,0,1,2,5] 7-22 ... '] <4,2,4,5,4,2>8 5-23 'A [0,2,3,5,7] <1,3,2,1,3,0>7-23 ... '''B [0,2,4,5, 6,7,9] <3,5,4,3,5,1>25 5-23 ... '''B [0,2,4,5,7] 7-23A [0,2,3,4, 5,7,9] 5-24A [0,1,3,5,7] <1,3,1,2,2,1>7-24 ... '''B [0,2,4,6, 7,8,9] <3,5,3,4,4,2>22 5-24 ' B [0,2,4,6,7] 7-24A [0,1,2,3, 5,7,9] 5-25A [0,2,3,5,8] <1,2,3,1,2,1>7-25 'B [0,2,3,5, 6,7,9] <3,4,5,3,4,2>24 5-25 ... 'B [0,3,5,6,8] 7-25A [0,2,3,4, 6,7,9] 5-26A [0,2,4,5,8] <1,2,2,3,1,1>7-26 ... 'A [0,1,3,4, 5,7,9] <3,4,5,3,2>26 5-26 ... '''B [0,3,4,6,8] 7-26B [0,2,4,5, 6,8,9] 5-27A [0,1,3,5,8] <1,2,2,2,3,0>7-27 ... '''B [0,2,4,5, 7,8,9] <3,4,4,5,1>23 5-27 ... '''B [0,3,5,7,8] 7-27A [0,1,2,4, 5,7,9] 5-28A [0,2,3,6,8] <1,2,2,1,2>7-28 ... 'A [0,1,3,5, 6,7,9] <3,4,4,4,3,3>36 5-28 ... '''B [0,2,5,6,8] 7-28B [0,2,3,4, 6,8,9] 5-29A [0,1,3,6,8] <1,2,2,1,3,1>7-29 ... '''B [0,2,3,5, 7,8,9] <3,4,3,5,2>32 5-29 ... '''B [0,2,5,7,8] 7-29A [0,1,2,4, 6,7,9] 5-30A [0,1,4,6,8] <1,2,1,3,2,1>7-30 ... '''B [0,1,3,5, 7,8,9] <3,4,3,5,4,2>37 5-30 ... '''B [0,2,4,7,8] 7-30A [0,1,2,4, 6,8,9] 5-31 ' 'A [0,1,000 0,1,000 0,1,000 0,000 0,000 0,000 0,000 0,000 0,000 0,5-31A 3,6,9] ' ' <1,1,1,1,2>7-31 '''B [0,1,3,4, 6,7,9] <3,3,6,3,3,3>38 5-31 ... 'B [0,2,3,6,9] 0|7-31 'A [0,2,3,5, 6,8,9] ... ' 5-32A [0,1,4,6,9] <1,1,3,2,2,1>7-32 ... '''B [0,1,3,5, 6,8,9] 33 ' <3,3,5,4,4,2>5-32B [0,3,5,8,9] ' 0|7-32 ' ' 'A [0,1,3,4, 6,8,9] 5-33 ' <0,0,4,0,4,0,2>6,8 ,0,1,2,4] 7-33 ... '''],T] <2,6,2,6,2,3>6 לשחק M סולם Locrian 5-34 [0,2,4,6,9] <0,3,2,2,2,1>לשחק</0,3,2,2,2,1> </6,2,6,2,3> </0,4,0,4,0,2> </3,5,4,4,2> </1,1,3,2,2,1> </1,1,1,4,1,2> </3,4,3,5,4,2> </1,2,1,3,2,1> </3,4,4,4,3,3> </1,2,2,2,1,2> </3,4,4,4,5,1> </1,2,2,3,0> </3,4,4,5,3,2> </1,2,3,1,1,2> </3,5,3,4,4,2> </1,3,1,2,2,1> </3,5,4,3,5,1> </1,3,2,1,3,0> </4,2,4,5,4,2> </2,0,2,3,2,1> </4,2,4,6,4,1> </2,0,2,4,2,0> </4,3,3,4,5,2> </2,1,1,2,3,1> </4,3,4,3,4,3> </2,1,2,1,2,2> </4,3,4,5,4,1> </2,1,2,3,2,0> </4,3,5,4,3,2> </2,1,3,2,1,1> </4,4,2,4,4,3> </2,2,0,2,2,2> 0|6,8 ,0,1,3,4] 7-34 ' ',T] 9 '' <2,5,4,4,2>0,2,4,7,9] 5-35 ' .'] <0,3,2,1,4,0>' M 7- ' ' 356,8 ,0,1,3,5] ,T] <2,5,4,3,6,1>7 5 ' '-z36A [0,1,2,4,7] <2,2,2,1,2,1>000 ... 7-z36B [0,2,3,5, 6,7,8] <4,4,3,4,2>16 5 ... '''-z36B [0,3,5,6,7] 7-z36A [0,1,2,3, 5,6,8] 5-z37 [0,3,4,5,8] <2,1,2,3,2,0>7 ... '-z37 [0,1,3,4, 5,7,8] <4,3,4,5,4,1>3 5 ... '-z38A [0,1,2,5,8] <2,1,2,2,2,1>7 ... '''-z38B [0,1,3,4, 6,7,8] <4,3,4,4,4,2>29 5 ... '''-z38B [0,3,6,7,8] 7-z38A [0,1,2,4, 5,7,8] 6-1 [0,1,2,3,4,5] 4 '' <5,4,3,2,1,0>1,1,2,3,4,6 ''] <4,4,3,2,1,1>19 6-2 ... ''B [0,2,3,4,5,6] 6-z3A [0,1,2,3,5,6] <4,3,3,2,2,1>49 6 ... '''-z36B [0,3,4,5,6,7] <4,3,3,2,2,1>50 6 ... '-z3B [0,1,3,4,5,6] 6-z36A [0,1,2,3,4,7] 6-z4 [0,1,2,4,5,6] <4,3,2,3,2,1>24 6 ... ''-z37 [0,1,2,3,4,8] <4,3,2,3,2,1>23 6-5 ... '''A [0,1,2,3,6,7] <4,2,2,3,2>16 6-5 ... '''B [0,1,4,5,6,7] 6-z6 [0,1,2,5,6,7] <4,2,1,2,4,2>33 6 ... ''-z38 [0,1,2,3,7,8] <4,2,1,2,4,2>34 0,1,2,6,7,8] 6-7 ... '''] <3,4,3,2,3,0>5 6-9 ... 'A [0,1,2,3,5,7] <3,4,2,2,3,3>20 6-9 ... '''B [0,2,4,5,6,7] 6-z10A [0,1,3,4,5,7] <3,3,3,2,1>42 6 ... '-z39B [0,3,4,5,6,8] <3,3,3,2,1>41 6 ... '-z10B [0,2,3,4,6,7] 6-z39A [0,2,3,4,5,8] 6-z11A [0,1,2,4,5,7] <3,3,3,2,3,1>47 6 ... '''-z40B [0,3,5,6,7,8] <3,3,2,3,1>48 6 ... '-z11B [0,2,3,5,6,7] 0|'' Sacher hexachord 6-z40A [0,1,2,3,5,8] 6-z12A [0,1,2,4,6,7] <3,3,2,2,3,2>46 6 ... '-z41B [0,2,5,6,7,8] <3,3,2,2,3,2>45 6 ... '-z12B [0,1,3,5,6,7] 6-z41A [0,1,2,3,6,8] 6-z13 [0,1,3,4,6,7] <3,2,4,2,2>29 6 ... '''-z42 [0,1,2,3,6,9] <3,2,4,2,2>30 6-14 ... '''A [0,1,3,4,5,8] <3,2,3,4,3,0>3 6-14 ... '''B [0,3,4,5,7,8] 6-15A [0,1,2,4,5,8] <3,2,3,4,2,1>13 6-15 ... 'B [0,3,4,6,7,8] 6-16A [0,1,4,5,6,8] <3,2,2,4,3,1>11 6-16 ... 'B [0,2,3,4,7,8] 6-z17A [0,1,2,4,7,8] <3,2,2,3,3,2>35 6 ' '''-z43B [0,2,3,6,7,8] <3,2,2,3,3,2>36 6 ... '''-z17B [0,1,4,6,7,8] 6-z43A [0,1,2,5,6,8] 6-18A [0,1,2,5,7,8] <3,2,2,2,4,2>17 6-18 ... 'B [0,1,3,6,7,8] 6-z19A [0,1,3,4,7,8] <3,1,3,4,3,1>37 6 ... '''-z44B [0,3,4,7,8,9] <3,1,3,4,3,1>38 6 ... '-z19B [0,1,4,5,7,8] 6-z44A [0,1,2,5,6,9] '' hexachord 6-20 [0,1,4,5,8,9] <3,0,3,6,3,0>0 gt;2 '' hexachord 6-21A [0,2,3,4,8,8] <2,4,2,4,1,2>12民 ... 6-21B [0,2,4,5,6,8] 6-22A [0,1,2,4,6,8] <2,4,1,4,2,2>10 6-22 ... 'B [0,2,4,6,7,8] 6-z23 <2,3,4,2,2,2>27 6 ... '-z45 [0,2,3,4,6,9] <2,3,4,2,2,2>28 6 ... '''-z24A [0,1,3,4,6,8] <2,3,3,3,1>39 6 ... '-z46B [0,3,5,7,8,9] <2,3,3,3,1>40 ' ... </2,3,3,3,1> </2,3,3,3,3,1> </2,3,4,2,2,2> </2,3,4,2,2,2> </2,4,1,4,2,2> </2,4,2,4,1,2> </3,0,3,6,3,0> </3,1,3,4,3,1> </3,1,3,4,3,1> </3,2,2,2,4,2> </3,2,2,3,3,2> </3,2,2,3,3,2> </3,2,2,4,3,1> </3,2,3,4,2,1> </3,2,3,4,3,0> </3,2,4,2,2,2> </3,2,4,2,2,2> </3,3,2,2,3,2> </3,3,2,2,3,2> </3,3,3,2,3,1> </3,3,3,2,3,1> </3,3,3,3,2,1> </3,3,3,3,2,1> </3,4,2,2,3,1> </3,4,3,2,3,0> </4,2,0,2,4,3> </4,2,1,2,4,2> </4,2,1,2,4,2> </4,2,2,2,3,2>