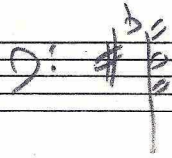
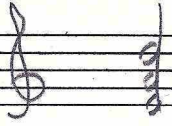


Bips examples to  
be copied and added  
to Lecture #7 notes

check for "superimposed" description in list.  
(Collase, Brown book)

example of non-uniquis bip



Scriabin's mystic chord (6-34)

bip 45566

associated with 15-sets

Unique bip



Schubert, Chamber Orchestra Pieces 1710, I

5-21: {2,3,6,7,10}  
bip 4445

Nearly unique bip 5-7 and 8-15 only

Schubert, Op. 11/3

5-7: {6,7,10,13}  
bip 1166

\*5-7 is a signif. set in the context from no. 1 on

Schubert, Op. 11/2 - Example of shared bip

4-16: {5,8,9,1,3} bip 556  
4-215: {4,6,9,10} bip 456  
4-16: {9,10,2,4,3} bip 456\*

also in no. 29 4-16 and 4-215 share bip 124



bip 456 associated with 4-8, 4-215, 4-16, 4-18, 4-22 (only)

Schubert, Op. 15/9 - Example of shared bip

4-8: {1,2,6,7} bip 556  
4-16: {4,6,10,11} bip 556

\*This bip occurs throughout 3rd piece with 4-16

bip 556 associated with 4-8, 4-9, 4-16 may be fairly described "nearly unique"

also need ref. to sets & non-sets

Webern, Op.24

6-20

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

1 4 1 4 1 4 1 5 1 4

bips

11144

11445

associated with 23 sets

neither bip is one of those uniquely associated with 6-20

associated with

20 sets

Bartok, Violin Sonata (Lendvai, p. 53)

6-20

7 10 11 2 3 6

3 1 3 1 3

bip 11333

not one uniquely associated with 6-20

associated with 15 sets

Basic cell theory - Dick Parls

use of sets layer in  
the trichoid

Bergs, Lyrle Suits, Estuement, m. 2

5-6 10 4 1 9 | 2 8 7 3 0 11  
1-4-6-3-4      6-1-4-3-1

6-244 bip 13446 associated  
with 34 hexachords  
including 6-23, 6-236, and  
6-219

6-219 bip 11346  
associated with 34 hexachords,  
including 6-23, 6-236, and 6-244

m. 2

6-23 ~~5~~ 5 4 1 2 0 11 | 6-236  
1-3-1-2-1      6 10 9 8 7 3  
4 -1-1-1-4

bip 11123  
associated with 20 sets  
including 6-236 and  
6-219

bip 11144  
associated with 20 sets  
including 6-23, 6-219,  
and 6-244

EXAMPLE OF NON-UNIQUE BIP

Both - CYRIL SUITE I, first (and  
second) hexachord: bip 12345  
for 6-32, which does have  
unique bip 55555

Schubert, op. 25/1 - first hex. is  
6-2 bip 12356 - associated  
with 37 add.  
sets

Examples of <sup>unique</sup> ~~special~~ bips

4-9: bip 566      Webern, Op.10/3 (Ex.1.7-4)

                    Webern, Op.5/4 (Ex. 1.10-1)



SEE Møgelgaard article

Schoenberg: 12-tone sets (hexachords)

Op.37 (Fourth String Quartet) ~~xxxxxxx~~ 6-16

Op.26 (Wind Quintet), ~~xxxxx~~ 6-21

Op.47~~1~~ (Ode to Napoleon) 6-20 possible unique hex

Op.35 (Six Pieces for Male Chorus)

Op.41 (Fantasy for Vn. & Piano) 6-21

k

Op.48/1 (Three Songs) 6-23

FIRST PSALM 6-20

Berg, Lyric suite II

m. 22, m. 1

6 4 1 9

2 3 8

bip 234

associated with 9 sets (max)

EXAMPLES OF NON-SPECIAL BITS

7-19 in *Walker, op. 5/4*

0 4 6 11 1 7 10

4-2-5-2-6-3

lip 223456 (37 SETS)

2-4 in *Walker, op. 5/11 (m. 2, un. 2)*

6 3 7 8 4 9 10

3-4-1-4-5-1

lip 113445 (37 SETS)

Schouby, (Erwartung, w. 3 P (Vorne))

2 4 7 1 1 0

2-3-6-3

bip 2336 (5-31)

17-31 has unique  
bips

in separate folder  
BIPS EXAMPLES TO COPY - Check BIPS article for examples used  
Schubert, Pirot, Op. 21/1 - shared bip

Bartok Bagatelle No. 6 - non unique bip

Stravinsky Trois pieces, II - vertical ordering -  
overlapping 5-note subsets

~~Stravinsky, Symphonies of Balus  
figures subset of II~~

Berg, Op. 6/2, no. 26 - shared bip

Schubert, Chamber Duets, Pieces No. I - unique bip

Schubert, Op. 11/2 - shared bip

? Schubert, Op. 11/3 - nearly unique bip

Berg, Wozzeck, Act II - bip comparison - used  
in article?

Bartok, music for strings, Perc. & Celeste - used in  
article?

EXAMPLES IN OLD FOLDER ON ORDER RELATIONS:  
PERMUTATION NOTATION (CYCLIC)

Examples of BIPS

Bips & imbrication

USED

Schubert, Op. 11/1

n. 23

3 forms of PC set 5-21 (imbrication)

3445      4445      4445  
 ← IT<sub>9</sub>   ← IT<sub>5</sub>

Bip 4445  
 is uniquely  
 associated with 5-21.  
 Bip 3445 associated with  
 16 sets

# EXAMPLE OF UNIQUE BIP

VSED

WEBER, Op. 10/3

used

m. 2

poset 4-9

6-7-6 bip 566

EXAMPLE OF BIP COMPARISON

Bartok: Music for Strings, Percussion & Celesta, II, m. 187.

USED

~~Compare other example from same work. - 5-31~~

188

Cb. & vc.

196

5-31: {6,4,7,9,10} bip 1233

Harp

5-31: {7,10,1,3,4}

bip 2333 associated with five sets

(5-10, 5-16, 5-25, 5-31, 5-32)

5-31: {7,10,1,3,4} z=6 4 members. {7,10,1,4} NB, 2 non-minor thirds = retrograde of a

Interval Successions	bips
2-3-3-3	<u>2333</u>
3-2-1-3	<u>1233</u>

bip 1233 associated with 14 sets



Bartok, music for Strings, Percussion and Celesta II, m. 114

(Allegro)



Interval  
SKELETON: 6 5 5 6

5-7: {2,3,4,8,9}

EXAMPLE OF  
NEARLY UNIQUE  
BIP

bip 5566 associated with  
5=7 and 5=8 only

Also note the 9 4 9 forms 1 interval  
(prohibition of repetition = see other example)

Stravinsky, Trois poésies de la Lyrique japonaise, II

No. 2  
(wind)

7-31

bip 245666

Example of non-unique bip

shared by 6 sets

Reason for vertical ordering is

(7-2, 7-15, 7-19, 7-25, 7-31, 7-33)

Suboct (pentat) structure —

all are equal — the music

5-16 ~~is~~ in m. 9 as ~~transcription~~ ~~double~~ ~~per~~

5-16 in m. 6, 9, etc.

5-28 in m. 17 (same form: 4, 6, 9, 10, 0) bip 1366 ~~with~~ ~~ing~~ ~~double~~ 9

5-31 is the inverted complement of 7-31

W03350R

USED

Companions of lips

Act I m. 2 (Hauptmann)

6-21: {7, 9, 11, 0, 1, 3}

1-2-4-2-2 bip 12224

m. 620 (Octave)

6-21: {7, 9, 11, 3, 1, 3}

Oh! meine The... 1-2-2-2-5 bip 22225

m. 710 (Tambourine)

6-21: {1, 3, 5, 7, 9}

= IT of above

in vers. 1, 3, 7, 9

2-6-2-2-1 bip 12226

Example of hand slip (problem of fall)

Schoenberg, Pierrot Lunaire, Op. 21/1 (piano only)

⑥

Pcs                      Rip  
 A: 0, 1, 4, 5 (4-7) 114  
 B: 1, 0, 4, 5 (4-8) 114

↑  
B

Three unrelated pieces

Berg, Op. 6/2 ("Reigen")

Example of sets with shared bip

Then me especially

⑥

Ob.

6-14: {4, 7, 8, 9, 11, 0}

bip 11124

26

Int. I interval success: 6-5-3

4-229 bip 356

{6, 7, 9, 13}

shared with 4-13, 4-215, 4-18, 4-27, ~~4-12, 4-11~~

Int. II

Interval success 3-6-1

4-13 bip 356

{0, 3, 5, 6}

use in discussion of non-unique bip

5-28 2 5 66 (5) 5-7, 5-15, 5-19, 5-28, 5-31

5-16 2 4 5 6 (20) 5-6, 5-7, 5-9, 5-10, 5-21, 5-13, 5-14,  
5-16, 5-21, 5-19, 5-20, 5-24, 5-25,  
5-26, 5-29, 5-30, 5-32, 5-24, 5-26  
5-238

5-31 4 5 66 (5) 5-7, 5-15, 5-19, 5-28, 5-31

|  
m. 31  
bip 3566

5-16 m. 9 bip 2 3 4 5

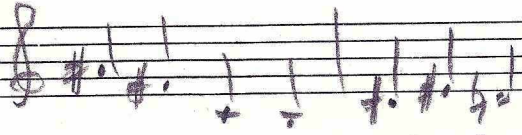
Bartok, 14 Bagatelles, No. 6  
Fountain Bagatelles, Op. 6/6

EXAMPLE OF  
NON-UNIQUE  
BIP

7-238: 510, 11, 0, 2, 3, 5, 63

not strictly speaking a BIP

m. 1



4-6-1-4-2-3

bip 123446 shared by 38

the 7- element sets

(only 7-35, "the distinct  
scale", cannot produce this bip)

7-238 has uniqueness  
index 10

1 4 9  
0 3 7 8  
0 1 4 5 8

~~4 5 8~~

4 5 (9 8) 9) 1

~~1 4 1 4~~

~~1144~~

4 5 ((9 8) 9) 1

4 5 (9 8) 1

Schroenberg op. 16/1

~~not the BIP~~

not one of the BIPs uniquely  
associated with Pc set 5-21

1417 1145