

MTO 30.1 Examples: Lam, Pentatonic Xuangong 旋宮 Transformations in Chinese Music

(Note: audio, video, and other interactive examples are only available online)

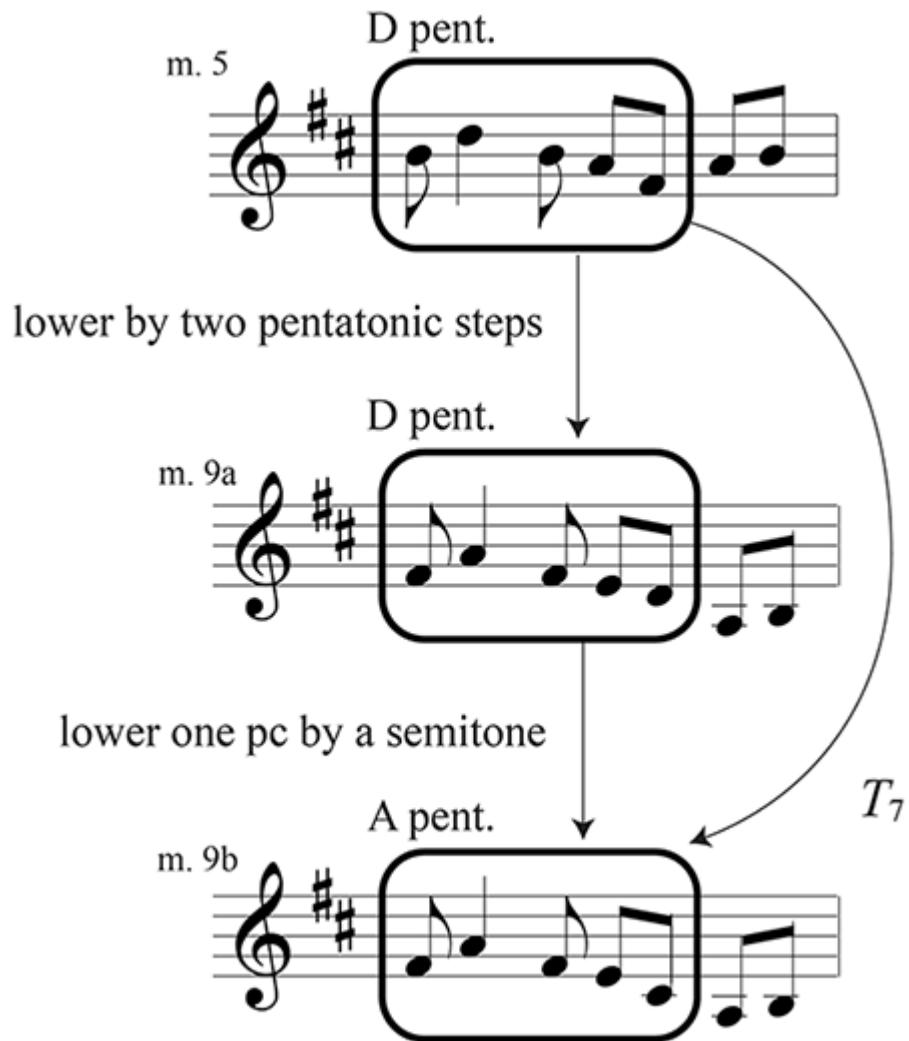
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Example 1.1. Transpositions between pentatonic structures in “Choiwan jeui yyut” 彩雲追月 (“Colorful Clouds Chasing the Moon”), comparison of the Cantopop variant by Amy Wu 胡美儀 and the original arrangement by Ren Guang 任光 (ornaments omitted)

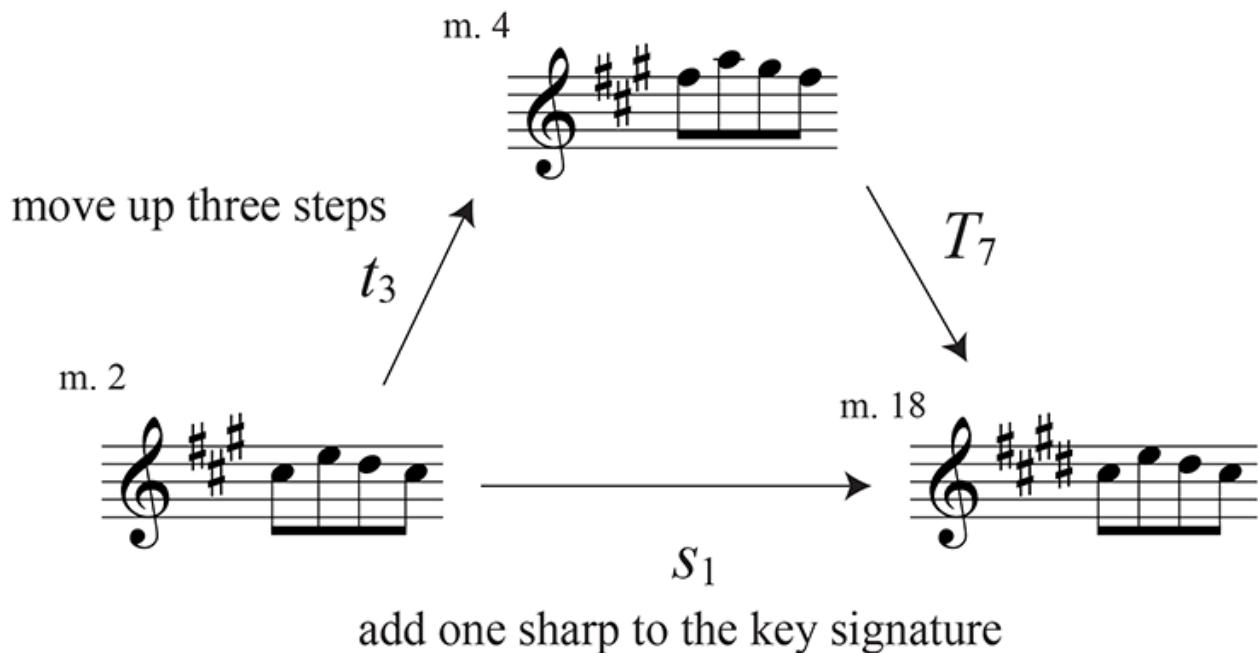
The diagram illustrates the musical score for Example 1.1, showing four staves of music with annotations for pentatonic structures and transpositions.

- opening ascent:** The first staff shows the opening ascent in G major (D pentatonic). The melody consists of eighth and sixteenth notes.
- antecedent:** The second staff shows the antecedent in G major (D pentatonic). It features eighth-note pairs and sixteenth-note pairs. The entire measure is enclosed in a box.
- simplified consequent:** The third staff shows the simplified consequent in G major (D pentatonic). It features eighth-note pairs and sixteenth-note pairs. The entire measure is enclosed in a box. An arrow points down to the fourth staff, labeled "lower by two pentatonic steps".
- original consequent:** The fourth staff shows the original consequent in F major (A pentatonic). The melody consists of eighth and sixteenth notes. The entire measure is enclosed in a box. An arrow points down to the fifth staff, labeled "lower one pc by a semitone".
- m. 7b:** The fifth staff shows the music in E major (D pentatonic). The melody consists of eighth and sixteenth notes. The entire measure is enclosed in a box. An arrow points down to the sixth staff, labeled "A pent." and "D pent.".

Example 1.2. "Choiwan jeui yyut," motivic network with distinct versions of the syncopated motive



Example 1.3. Hook's (2008, 139) analysis of Franz Schubert, "Valse sentimentale" D. 779, No. 13



Example 2.1. Concordance of Chinese and Western note names in D pent., with C fixed to *huangzhong* by convention; common *pinyin* in grey

Example 2.2. D pent. in (a) scalar and (b) fifth orders

(a) scalar order

pentatonic pitch class: (D,gong) (D,shang) (D,jue) (D,zhi) (D,yu)

(2,0) (2,1) (2,2) (2,3) (2,4)

(b) fifth order

Example 2.3. *Xuangong* tone wheels at (0,0) and (2,4)

(a)



(b)



Example 2.4. "Shuilong yin" 水龍吟 ("Water-dragon chant") in *bendiao* 本調 (original key) and *meihuadiao* 梅花調 (plum blossom key) excerpted from Jones 2007 (107–8), outline of the lower shawm part

(a) structural pentatonic scale

bendiao 本調 (home key) (E, gong) (4,0) (E, shang) (4,1) (E, jue) (4,2) (E, zhi) (4,3) (E, yu) (4,4)

meihuadiao 梅花調 (plum blossom key) (D, gong) (2,0) (D, shang) (2,1) (D, jue) (2,2) (D, zhi) (2,3) (D, yu) (2,4)

T_{10}

(b) melodic excerpts (ornaments omitted)

bendiao (home key)

meihuadiao (plum blossom key)

Example 2.5. "Guo jiang long" 過江龍 ("River-crossing dragon"), A and B section, incipits

(F, zhi) (F, gong) (F, yu) (F, zhi) (F, jue)
(5,3) (5,0) (5,4) (5,3) (5,2)

正線 *zhengxian*
(home key)

t_3

反線 *fanxian*
(inverse key)

(F, shang) (5,1) (F, zhi) (5,3) (F, jue) (5,2) (F, shang) (5,1) (F, gong) (5,0)

Example 2.6. Correspondance of diatonic and pentatonic intervals in F pent.

pentatonic transposition	pc interval		diatonic interval		Examples of transpositions in F pent.		
	smaller	larger	smaller	larger	smaller	larger	
t_1	2	3	M2	m3	$F \rightarrow G$		$A \rightarrow C$
t_2	4	5	M3	P4	$F \rightarrow A$		$A \rightarrow D$
t_3	7	8	P5	m6	$F \rightarrow C$		$A \rightarrow F$
t_4	9	10	M6	m7	$F \rightarrow D$		$A \rightarrow G$

Example 2.7. Duan Pingtaï 段平泰, *Course in Polyphonic Music* (2013, 171), canon

5

M2

t_{-3}

m3

not B!

Example 3.1. The central diatonic superset of a pentatonic scale in (a) scalar order and (b) fifth order

(a) scalar order



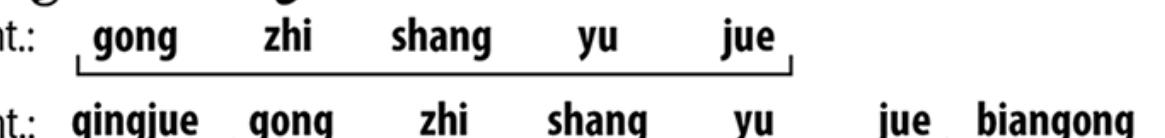
C pent.: **gong** shang **jue** **qingjue** **zhi** **yu** **biangong**

The musical staff consists of seven notes on a five-line staff. The notes are: a black dot on the 4th line, a black dot on the 3rd line, a black dot on the 2nd line, a black dot on the 1st line, a black dot on the 4th line, a black dot on the 3rd line, and a black dot on the 2nd line. Below the staff, the notes are labeled with their corresponding Chinese names: 'gong', 'shang', 'jue', 'qingjue', 'zhi', 'yu', and 'biangong'. The first three notes are grouped together by a bracket, and the last four notes are grouped together by another bracket.

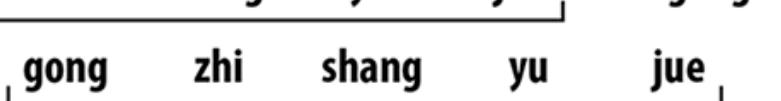
(b) fifth order



F pent.: **gong** **zhi** **shang** **yu** **jue**



C pent.: **qingjue** **gong** **zhi** **shang** **yu** **jue** **biangong**

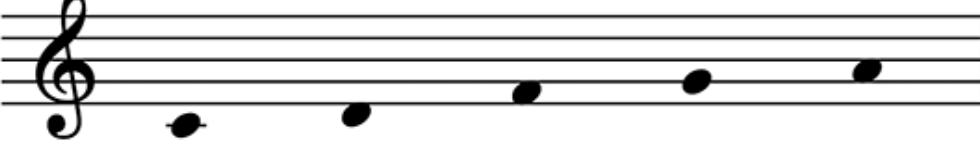


G pent.: **gong** **zhi** **shang** **yu** **jue**

The musical staff consists of five notes on a five-line staff. The notes are: a black dot on the 3rd line, a black dot on the 2nd line, a black dot on the 1st line, a black dot on the 4th line, and a black dot on the 3rd line. Below the staff, the notes are labeled with their corresponding Chinese names: 'gong', 'zhi', 'shang', 'yu', and 'jue'. The first note is labeled 'gong'. The next four notes are grouped together by a bracket below the staff, labeled 'zhi', 'shang', 'yu', and 'jue'. Below this bracket, the notes are labeled with their corresponding Chinese names: 'qingjue', 'gong', 'zhi', 'shang', 'yu', 'jue', and 'biangong'. The first note is labeled 'qingjue'. The next five notes are grouped together by a bracket below the staff, labeled 'gong', 'zhi', 'shang', 'yu', and 'jue'. The first note is labeled 'gong'. The next four notes are grouped together by a bracket below the staff, labeled 'zhi', 'shang', 'yu', and 'jue'.

Example 3.2. C pent. scale transformed by b_1 and q_1 via pivot notes **biangong** and **qingjue**

(F,zhi) (F,yu) (F,gong) (F,shang) (F,jue)
 $(5,3) \quad (5,4) \quad (5,0) \quad (5,1) \quad (5,2)$



“qingjue”
 $\left(\begin{array}{c} \text{G clef} \\ \text{fa} \end{array} \right)$

q_1

(C,gong) (C,shang) (C,jue) (C,zhi) (C,yu)
 $(0,0) \quad (0,1) \quad (0,2) \quad (0,3) \quad (0,4)$



“biangong”
 $\left(\begin{array}{c} \text{G clef} \\ \text{si} \end{array} \right)$

b_1

(G,jue) (G,zhi) (G,yu) (G,gong) (G,shang)
 $(7,2) \quad (7,3) \quad (7,4) \quad (7,0) \quad (7,1)$



Example 3.3. "Lao liuban" 老六板 ("Old six beats") and "Jinshe kuangwu" 金蛇狂舞 ("Wild dance of the golden snake"), arr. by Nie Er 聾耳, B sections

pentatonic positions in D pent.: (D,zhi) (D,jue) (D,zhi) (D,shang)
 (2,3) (2,2) (2,3) (2,1)

gongche syllables in D dia.: 六 liu 工 gong 六 liu 尺 che

老六板 *Lao liuban*
 (Old six beats)

pentatonic positions in G pent.: (G,shang) (G,gong) (G,shang) (G,yu)
 (7,1) (7,0) (7,1) (7,4)

gongche syllables in D dia.: 六 liu 凡 fan 六 liu 尺 che

金蛇狂舞 *Jinshe kuangwu*
 (Wild dance of the golden snake)

Example 3.4. Terminology for shawm fingering (after Yang 1996; Li 2011)

	<i>b</i> ₃	<i>b</i> ₂	<i>b</i> ₁		<i>q</i> ₁	<i>q</i> ₂	<i>q</i> ₃
pent. set	A pent.	D pent.	G pent.	C pent.	F pent.	Bb pent.	Eb pent.
scale names	三壓上	雙壓上	壓上	本調	單借	雙借	三借
	<i>san yashang</i>	<i>shuang yashang</i>	<i>yashang</i>	bendiao	<i>dan jie</i>	<i>shuang jie</i>	<i>san jie</i>
	lower shang thrice	lower shang twice	lower shang (do → si in gongche)	home key	single borrowing	double borrowing	triple borrowing

Example 3.5. Common qin tunings

慢宮調 *mangongdiao*
 慢一三六 loosen 1st, 3rd, 6th

慢角調 *manjuediao*
 慢三 loosen 3rd

正調 *zhengdiao*
 (standard tuning)

蕤賓調 *ruibindiao*
 緊五 tighten 5th

清商調 *qingshangdiao*
 緊二五七 tighten 2nd, 5th, 7th

Example 3.6. Li Yinghai, *Yigong Variations* (2000), incipits

The image displays five staves of musical notation, each marked with a 'q1' and connected by a curved arrow on the left side, indicating a repeating pattern. The staves are as follows:

- Staff 1:** Treble clef, 4/4 time, key signature of two sharps. The music consists of eighth and sixteenth note patterns.
- Staff 2:** Bass clef, 4/4 time, key signature of two sharps. The music consists of eighth and sixteenth note patterns.
- Staff 3:** Treble clef, 6/8 time, key signature of one sharp. The music consists of sixteenth note patterns.
- Staff 4:** Bass clef, 4/4 time, key signature of one sharp. The music consists of eighth and sixteenth note patterns.
- Staff 5:** Treble clef, 2/4 time, key signature of one sharp. The music consists of eighth and sixteenth note patterns.

Example 3.7. (a) Li Yinghai, *Wusheng yindiao gangqin zhifalianxi* 五聲音調鋼琴指法練習 (Pentatonic fingering exercises for piano), Exercise 1.2. Parallel-relation, gong-transposing, mode-changing exercise (gradual transition), 1, upshift 同主音調式移宮移調練習 (漸漸過渡), 1. 上移 (2002 [1964], 3)

1. 上移

(1) C 宮 C 徵 c 商 c 羽 c 角

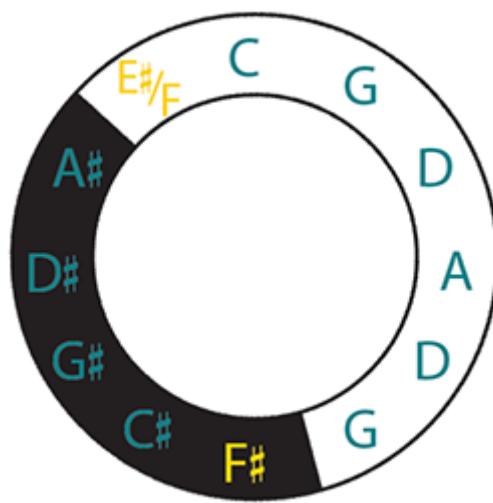
(2) b D 宮 b D 徵 b c 商 b c 羽 b c 角

(3) D 宮 D 徵 d 商 d 羽 d 角

Example 3.8. Comparison of diatonic and pentatonic accidentals

scale type	signature transformation	transposition of underlying scale	semitone inflection
diatonic	sharp-directed (s_n)	Up P5	Up A1
	flat-directed (f_n)	Down P5	Down A1
pentatonic	bian-directed (b_n)	Up P5	Down m2
	qing-directed (q_n)	Down P5	Up m2

Example 3.9. Animated transposition of complementary diatonic and pentatonic sets



Example 3.10. "Choiwan jeui yyut," motivic network, with annotations

(D,**yu**) (D,**gong**) (D,**yu**) (D,**zhi**) (D,**jue**)
 (2,4) (2,0) (2,4) (2,3) (2,2)

m. 5



$t_{-2} = t_3$

(D,**jue**) (D,**zhi**) (D,**jue**) (D,**shang**) (D,**gong**)
 (2,2) (2,3) (2,2) (2,1) (2,0)

m.9a



b_1

T_7

(A,**yu**) (A,**gong**) (A,**yu**) (A,**zhi**) (A,**jue**)
 (9,4) (9,0) (9,4) (9,3) (9,2)

m.9b



Example 3.11. The fifth transpositions of a C pent. scale

Three staves of musical notation showing the fifth transpositions of a C pentatonic scale. The top staff shows the original scale with note names and pitch numbers. The middle staff shows the first transposition, and the bottom staff shows the second transposition. Transpositions are indicated by arrows and labels t_2 , T_5 , q_1 , b_1 , T_7 , and t_3 .

Top staff (Original C pentatonic scale):

(F,gong)	(F,shang)	(F,jue)	(F,zhi)	(F,yu)	(F,zhi)	(F,yu)	(F,gong)	(F,shang)	(F,jue)
(5,0)	(5,1)	(5,2)	(5,3)	(5,4)	(5,3)	(5,4)	(5,0)	(5,1)	(5,2)

Middle staff (First transposition):

(C,jue)	(C,zhi)	(C,yu)	(C,gong)	(C,shang)	(C,gong)	(C,shang)	(C,jue)	(C,zhi)	(C,yu)	(C,zhi)	(C,yu)	(C,gong)	(C,shang)	(C,jue)
(0,2)	(0,3)	(0,4)	(0,0)	(0,1)	(0,0)	(0,1)	(0,2)	(0,3)	(0,4)	(0,3)	(0,4)	(0,0)	(0,1)	(0,2)

Bottom staff (Second transposition):

(G,jue)	(G,zhi)	(G,yu)	(G,gong)	(G,shang)	(G,gong)	(G,shang)	(G,jue)	(G,zhi)	(G,yu)
(7,2)	(7,3)	(7,4)	(7,0)	(7,1)	(7,0)	(7,1)	(7,2)	(7,3)	(7,4)

Transposition labels:

- t_2 : Curved arrow from the first staff to the second staff.
- T_5 : Vertical arrow from the first staff to the third staff.
- q_1 : Diagonal arrow from the first staff to the third staff.
- b_1 : Curved arrow from the second staff to the third staff.
- T_7 : Vertical arrow from the second staff to the third staff.
- t_3 : Curved arrow from the second staff to the third staff.

Example 3.12. All 60 forms of the pentatonic scale

The image displays 12 staves, each representing a different form of the pentatonic scale. The staves are labeled on the left as follows:

- A♭ pent.
- E♭ pent.
- B♭ pent.
- F pent.
- C pent.
- G pent.
- D pent.
- A pent.
- E pent.
- B pent.
- F♯ pent.
- C♯ pent.
- D♯ pent.

Each staff has a treble clef and a key signature. The notes are represented by dots on the staff. Above each staff, Chinese characters are written: 'gong', 'shang', 'jue', 'zhi', and 'yu'. The staves are interconnected by a network of diagonal lines, forming a complex web of relationships between the different forms. Some specific points on these lines are labeled with arrows and letters: 't2', 'T5', 'q1', 't3', 'b1', 'T7', and 't2'. The score is set against a white background with black lines for the staves and text.

Example 5.1. Joseph Koo Kar-Fai 顧嘉輝 (music), James Wong Jim 黃霑 (lyrics), "Jukfuk nei" 祝福你 ("Bless you") (1980)

intro (parallel period)

B♭: I

V

t_{-2}

I

t_{-3}

verse

I

V

t_{-3}

t_{-2}

t_{-1}

bridge

IV

I

T_7

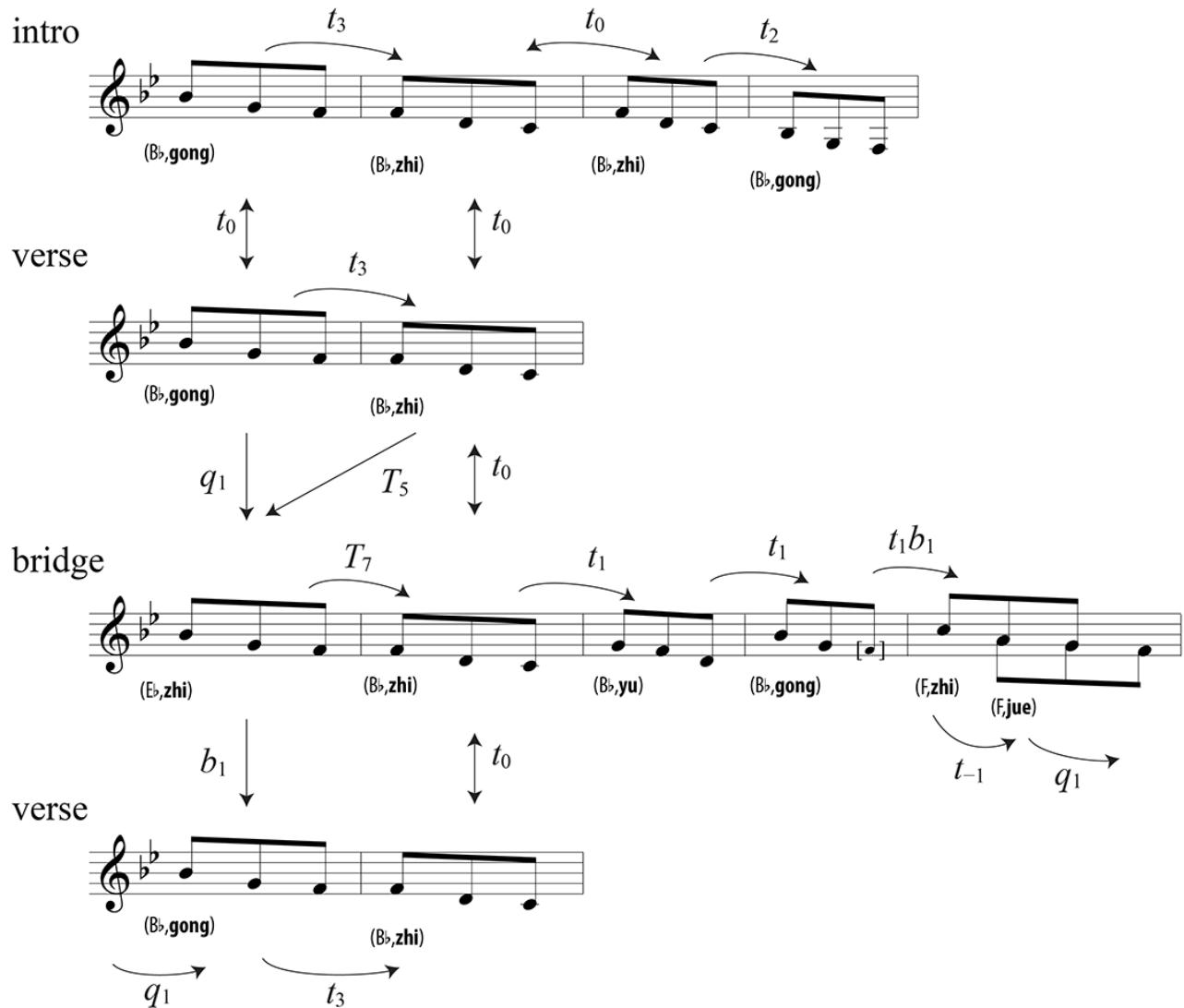
vi

V/V

V

rising t_1 motion

Example 5.2. Joseph Koo Kar-Fai, "Jukfuk nei," motivic network



Example 6.1. Tan Dun 譚盾, "Eight Memories in Watercolor" (1978–79), Op. 1, "Staccato Beans," complete thematic material with codettas and transitions omitted and phrases grouped by similarity (phrase 5 is the same as phrase 4 up an octave)

melody and final chord

phrase 1

m. 1

$t_{-2}q_1 = T_5t_1$

$t_{-3}q_1 = T_5$

phrase 3

m. 26

opening chord

phrase 2

m. 13

(F,yu) (F,zhi) (F,jue) (F,yu) (F,zhi) (F,jue)

t_{-1} t_{-1} t_2 t_{-1} t_{-1}

$t_{-1}t_{-1}t_2 = t_0$

phrase 4

m. 54

t_1 chord

$(F,shang)$ $(F,gong)$ (F,yu) $(B,shang)$ $(B,gong)$ (B,yu)

t_2 t_{-1} t_{-1} $t_{-1}q_1$ t_{-1} t_{-1}

$t_{-1}t_{-1}t_{-1}q_1 = T_5$

Example 7.1. Zhu Zaiyu 朱載堉, *Lülü jingyi* 律呂精義, Outer book 6 (1598, seq. 944), *gongchepu* short score of "Nanfeng ge" 南風歌) annotated (read top to bottom, then right to left)

$t_{-1}: \leftarrow \rightarrow$ $t_0: \rightarrow \leftarrow$

gongchepu short score lyrics

var. 4	var. 3	var. 2	var. 1

舜歌一首 端如貫珠格

A song of Shun Straight as strung pearls pattern

Poem of *Nanfeng* by Shun

南風之薰兮 可以解吾民之愠兮 南風之時兮 可以阜吾民之財兮

Example 7.2. Zhu Zaiyu. *Lülü jingyi*, Inner Book 6 (1598, seq. 534), first ten variations of "Nanfeng ge" in the *straight as strung pearls pattern* 端如貫珠格 (my annotations in boxes)

Example 7.3. Zhu Zaiyu. *Lülü jingyi*, Inner Book 6 (1598, seq. 540), first ten variations of "Nanfeng ge" in the *endless cycle pattern* 循環無端格 (my annotations in boxes)

Example 7.4. Qin tuning in *Lülu jingyi* reordered by b_1 and T1 (Zhu's original ordering in bold)

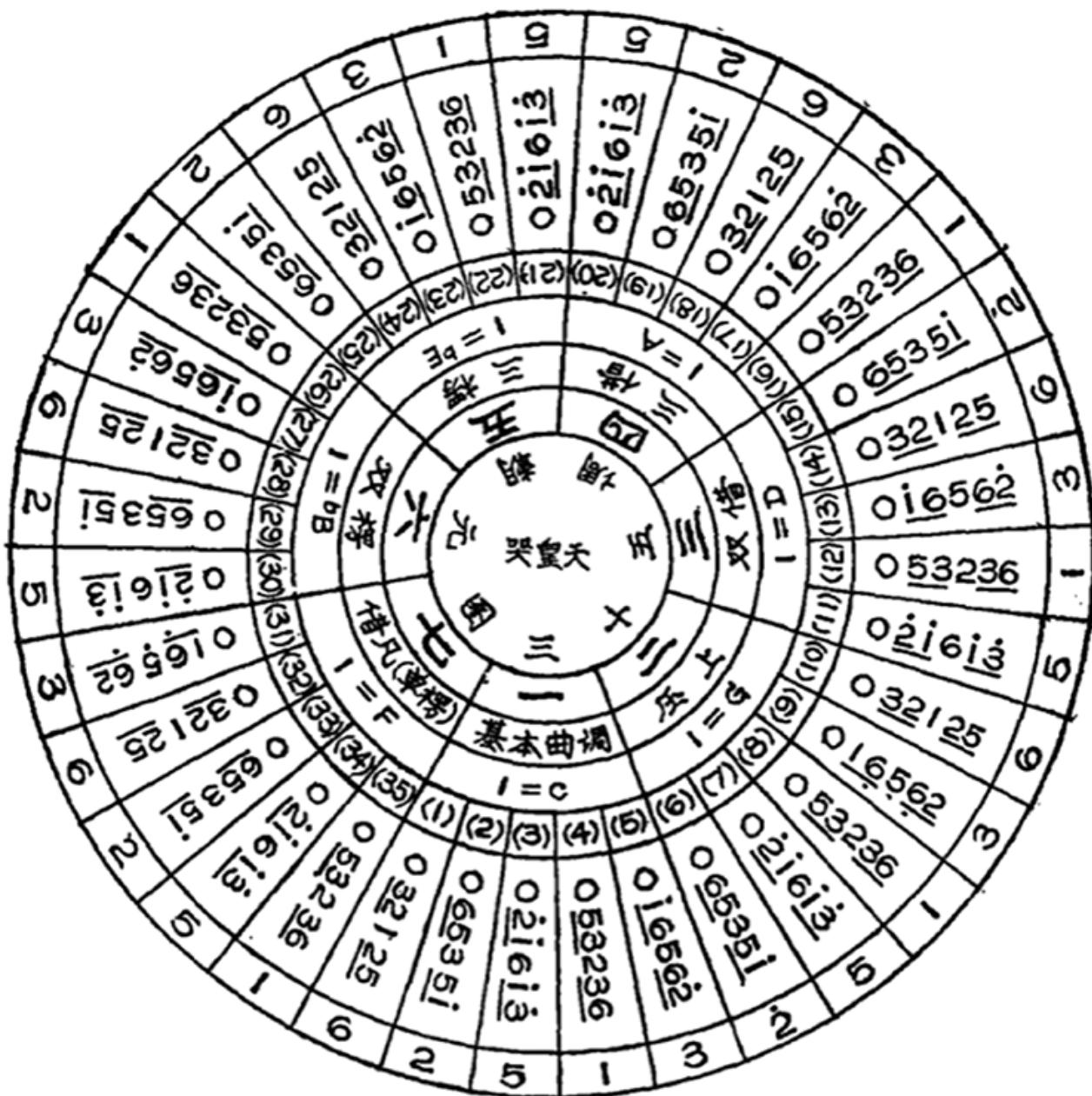
Example 8.1. "Ku huangtian" 哭皇天 ("Cry for heaven), from Li (1985, 93), original score in *gongchepu* by Zhang Hanchen 張漢臣 from Liaoyuan, Jilin province

The image shows three staves of musical notation. The first staff begins at measure 1, the second at measure 5, and the third at measure 9. Each staff is in 4/4 time and uses a treble clef. The key signature is B-flat major (one flat). The notation consists of various note heads and stems, with some notes beamed together. Measure 1 starts with a quarter note followed by eighth notes. Measure 5 starts with a quarter note followed by eighth notes. Measure 9 starts with a quarter note followed by eighth notes.

Example 8.2. *Ku huangtian*, five-key *chaoyuan* (each instance of the tune is abbreviated to its incipit and final)



Example 8.3. *Ku huangtian*, thirty-five-key *chaoyuan* cycle diagram by Li Laizhang 李來璋 (1985), notated in *jianpu* (incipit and final only)



Example 8.4. *Ku huangtian*, thirty-five-key *chaoyuan* cycle (incipit and final only)

Sheet music for a thirty-five-key *chaoyuan* cycle, showing the incipit and final notes. The music is in treble clef and consists of six staves of sixteenth-note patterns. Key changes are indicated by T_6 and t_2 markings.

The cycle starts with T_6 (key 21) and proceeds through the following keys:

- 21 (marked t_2)
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
- 30
- 31
- 32
- 33
- 34
- 35
- * (marked t_{2b1})
- (36) 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- * (marked T_6)

Example 9.1. Bright Sheng, *Three Fantasies* for violin and piano (2005), "Tibetan Air," first and last presentations of the main theme in the A section with initial rhythm included for reference

A section theme

mm. 5–6

violin theme
A section opening

3

F♯ pent.

mm. 10–13

piano theme
A section opening (as intermediary)

3

C♯ pent.

T₇

mm. 36–38
mm. 39–40

violin theme at climax
A section ending

3

A♭ pent.

Example 9.2. Bright Sheng, "Tibetan Air," thematic link between A and B sections with initial rhythm included for reference

A section to B section link

mm. 39–42

violin climax
A section ending

A♭ pent.

mm. 47–48

violin organum
B section opening

A♭ pent.

D♭ pent.

5

A♭ pent.

E pent.

A♭ pent.

high and fast organum

phrase 1

mm. 47-48

mm. 5-8

vln opening 

pno 

mm. 36-38

vln 

mm. 39-40

vln climax 

fortspinnung T_5 T_7

T_0 T_0 T_{4b_2} T_{11} T_{1q_2} T_1

$b_{26}=T_7b_1$ $b_{25}=T_7$ b_{27} $b_{25}=T_7$

$G\flat$ pent. $D\flat$ pent. $G\flat$ pent. $D\flat$ pent.

$A\flat$ pent. $E\flat$ pent. $A\flat$ pent.

low and slow piano organum

phrases 1-6

$E\flat/D$ pent. G pent. D pent. A pent. E pent.

$b_{30}=T_6$ b_{26} b_{28} b_{27} $b_{25}=T_7$

$A\flat$ pent. A pent. B pent. $C\sharp$ pent.

$b_{35}=T_5$ b_{29} b_{27} b_{28} b_{26}

$D\flat$ pent. $A\flat$ pent. $E\flat$ pent. $B\flat$ pent. F pent.

T_{11} T_0 T_1 T_0 T_1 T_0

extended fortspinnung C pent. A pent. D pent. G pent.

b_{27} b_{26} $b_{25}=T_7$

8^{va} 8^{va}

T_1 T_1 T_1 T_1 T_1 T_1

continues at T_7

phrase 1 mm. 48-50 phrase 2 mm. 51-53 phrase 3 mm. 54-57 phrase 4 mm. 58-60 phrase 5 mm. 61-62 phrase 6 m. 63ff.

Example 9.3. Bright Sheng, "Tibetan Air," B section double parallel organum: Phrase 1 of high/fast organum; phrases 1-6 of low/slow organum

Example 9.4. The continuum from b_{30} to b_{25}

transposition			unique pcs transposed by T_6	unique pcs transposed by T_7	transposition of C D E G A				
b_{30}		$= T_6$	5	0	F#	G#	A#	C#	D#
b_{29}	$= T_7b_4$	$= T_6q_1$	4	1	F#	G#	B	C#	D#
b_{28}	$= T_7b_3$	$= T_6q_2$	3	2	F#	G#	B	C#	E
b_{27}	$= T_7b_2$	$= T_6q_3$	2	3	F#	A	B	C#	E
b_{26}	$= T_7b_1$	$= T_6q_4$	1	4	F#	A	B	D	E
b_{25}	$= T_7$		0	5	G	A	B	D	E

B section high and fast parallel organum

head motive

tail motives

fortspinnung

T_5

T_7

phrase 1
tonic state
(A^\flat & E^\flat)

mm. 47-48

piano

5

G^\flat pent.

D^\flat pent.

G^\flat pent.

D^\flat pent.

$b_{26} = T_7 b_1$

$b_{25} = T_7$

b_{27}

$b_{25} = T_7$

piano

5

A^\flat pent.

E^\flat pent.

A^\flat pent.

violin
(flautando)

Example 9.5. Bright Sheng, "Tibetan Air," B section double parallel organum: Phrases 1, 4, and 6–8 of the high/fast organum

phrase 4
subdominant state
(D_b & A_b)

T_5 of phrase 1

T_5 of phrase 1

T_5

T_7

$F\#$ pent.

B pent.

$F\#$ pent.

B pent.

$F\#$ pent.

mm. 57-58

violin
(on the string)

piano

$b_{26}=T_7b_1$

$b_{25}=T_7$

D_b pent.

A_b pent.

D_b pent.

6

6

extended *fortspinnung*

$t_2 = T_5 b_1$

$T_5 q_1$

G pent.

in
no

b_{27}

b_{26}

mm. 63ff

piano

violin

$b_{25} = T_7$

B \flat pent.

F pent.

C pent.

Detailed description: The diagram illustrates a melodic line across three staves. The top staff shows a sequence of notes with a bracket labeled $t_2 = T_5 b_1$ above it and a bracket labeled $T_5 q_1$ above the middle staff. The middle staff is labeled 'in no' and shows notes with a bracket labeled b_{27} below it and a bracket labeled b_{26} below the bottom staff. The bottom staff shows notes with a bracket labeled $b_{25} = T_7$ below it. The middle staff has a treble clef and a key signature of one sharp. The bottom staff has a bass clef and a key signature of one sharp. The top staff has a bass clef and a key signature of one sharp. The middle staff is labeled 'mm. 63ff'. The piano part is indicated by a bracket on the middle staff, and the violin part is indicated by a bracket on the bottom staff. The piano part is labeled 'piano' and the violin part is labeled 'violin'.

to Note

Example 10.1.

Secret Symmetries I - V

Nathan Lam (2017)

1. **Viola** and **Cello** staves (measures 1-10):

- Key signature: B-flat major (two flats).
- Time signature: 3/4.
- Tempo: $\text{♩} = 126$.
- Dynamic: *mp*.
- Measure 5: Measure number 5.
- Measure 10: Measure number 10.

2. **Violin** and **Cello** staves (measures 1-10):

- Key signature: B-flat major (two flats).
- Time signature: 3/4.
- Tempo: $\text{♩} = 126$.
- Dynamic: *f*.
- Measure 5: Measure number 5.
- Measure 10: Measure number 10.
- Text: **Fine** (at the end of measure 10).
- Text: **più f** (in measure 10).
- Text: **D.C. al Fine** (at the end of measure 10).
- Text: **rit.** (ritardando).

3. **Violin** and **Cello** staves (measures 1-10):

- Key signature: B-flat major (two flats).
- Time signature: 3/4.
- Tempo: $\text{♩} = 126$.
- Dynamic: *mf*.
- Measure 5: Measure number 5.
- Measure 10: Measure number 10.

4. **Violin** and **Cello** staves (measures 1-10):

- Key signature: B-flat major (two flats).
- Time signature: 3/4.
- Tempo: $\text{♩} = 112$.
- Dynamic: *f*.
- Measure 5: Measure number 5.
- Measure 10: Measure number 10.
- Dynamic: *ff*.
- Dynamic: *p*.

5. **Violin** and **Cello** staves (measures 1-10):

- Key signature: B-flat major (two flats).
- Time signature: 3/4.
- Tempo: $\text{♩} = 112$.
- Dynamic: *mp*.
- Measure 5: Measure number 5.
- Measure 10: Measure number 10.
- Text: **accel.** (accelerando).
- Text: **a tempo** (at tempo).
- Text: **subito p** (subito piano).

Example 10.2. Nathan Lam, *Secret Symmetries* (2017), (a) transposition scheme and (b) excerpts of pentatonic step motive

(a)

I. **II.** **III.** **IV.** **V.**

Viola

Cello

(b)

\wedge = M2, smaller pentatonic step
 $\overline{\square}$ = m3, larger pentatonic step

I.

II.

III.

IV.

V.