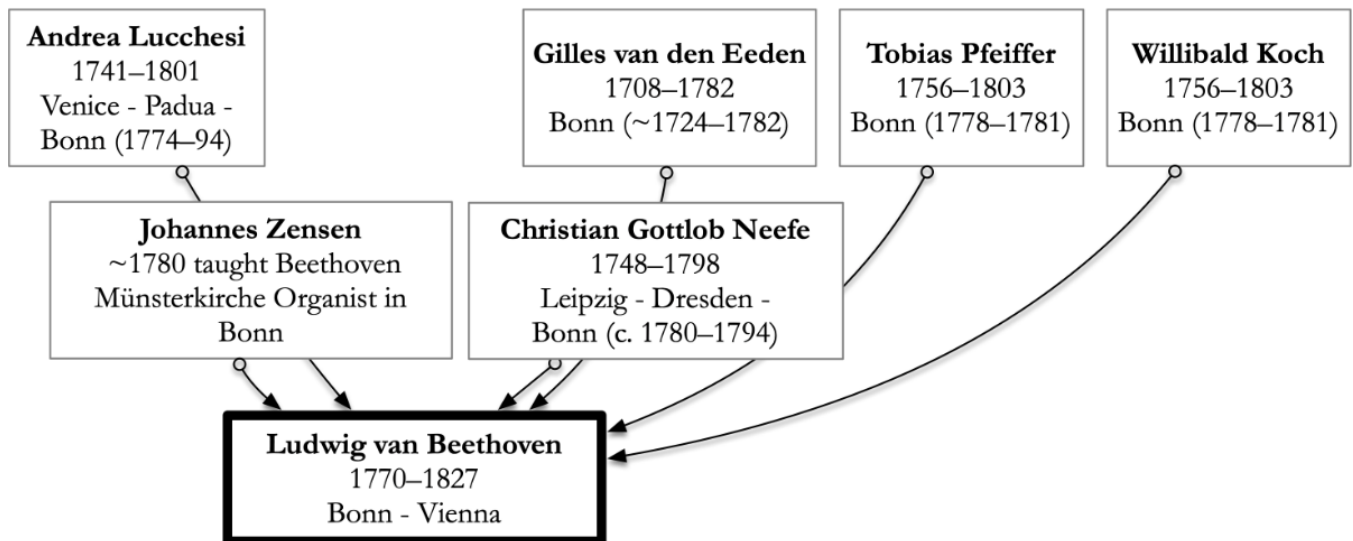


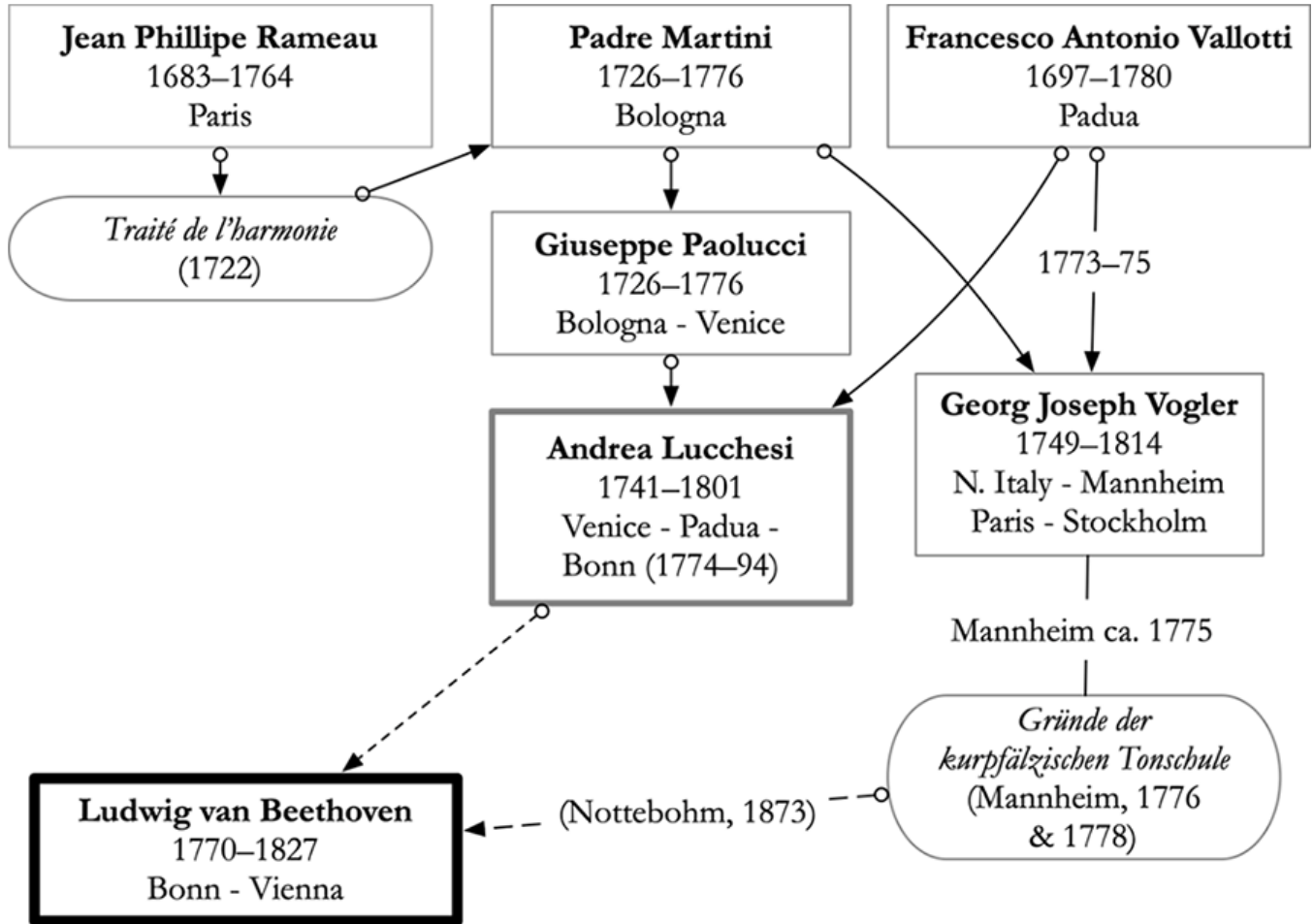
**MTO 29.4 Examples: Posen, Windows into Beethoven's Lessons in Bonn**

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

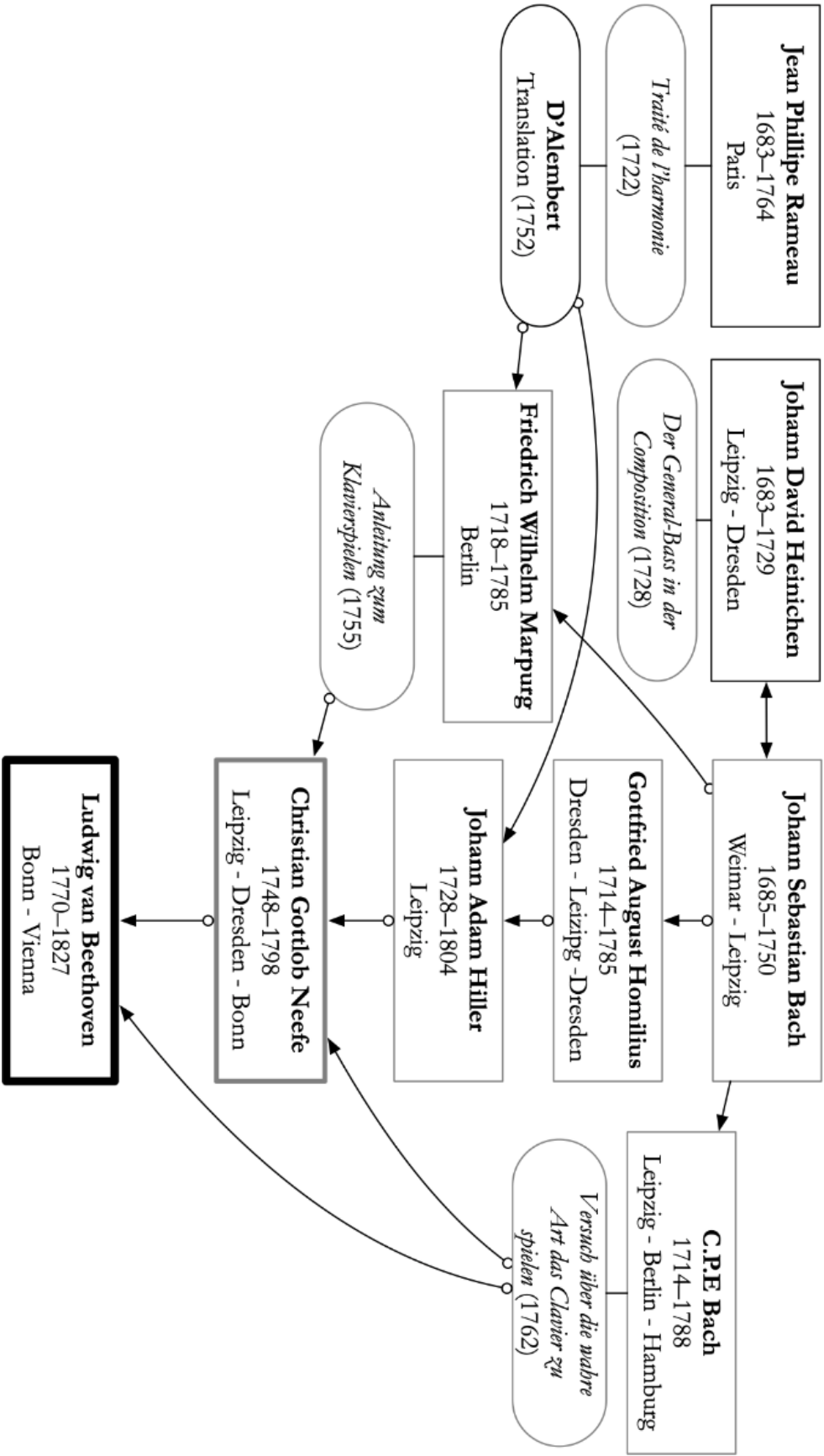
<https://mtosmt.org/issues/mto.23.29.4/mto.23.29.4.posen.html>

**Example 1. Beethoven's Early Teachers**

Example 2. Andrea Lucchesi's Nexus of Influence



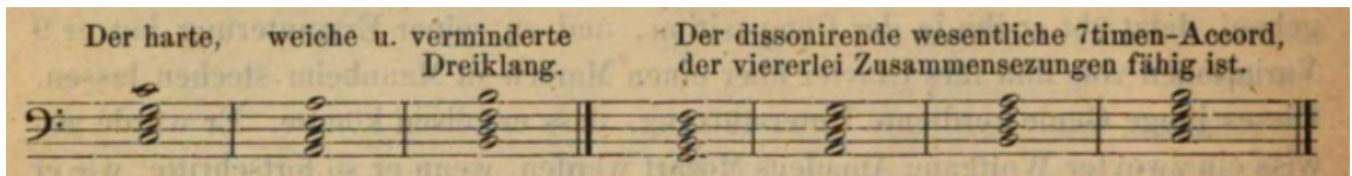
**Example 3.** Neefe's Nexus of Influence



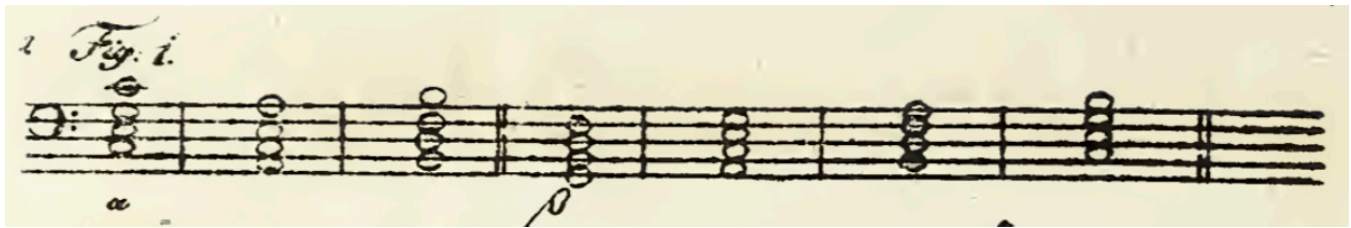
**Example 4.** Image of the first page of Beethoven's Bonn manuscript, A 9 WoO 113, "Klage," Lied für Singstimme und Klavier, Partitur und Skizzen; WoO 87, "Kantate auf den Tod Kaiser Joseph II., Skizzen; Drei- und Vierklang-Studien," p. 1; published with permission by the Archiv, Bibliothek und Sammlungen der Gesellschaft der Musikfreunde in Vienna.



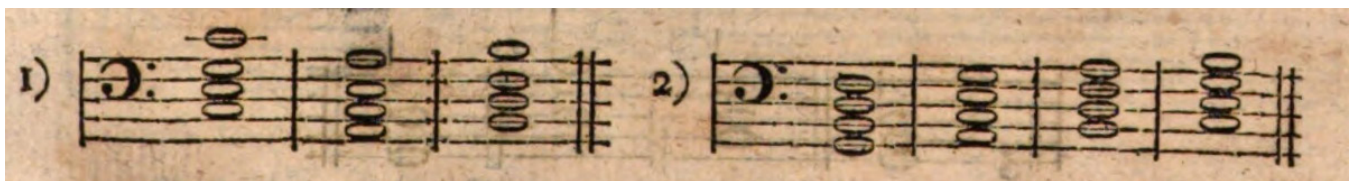
**Example 5.** Nottebohm's (1873, 6) transcription of Beethoven's chords



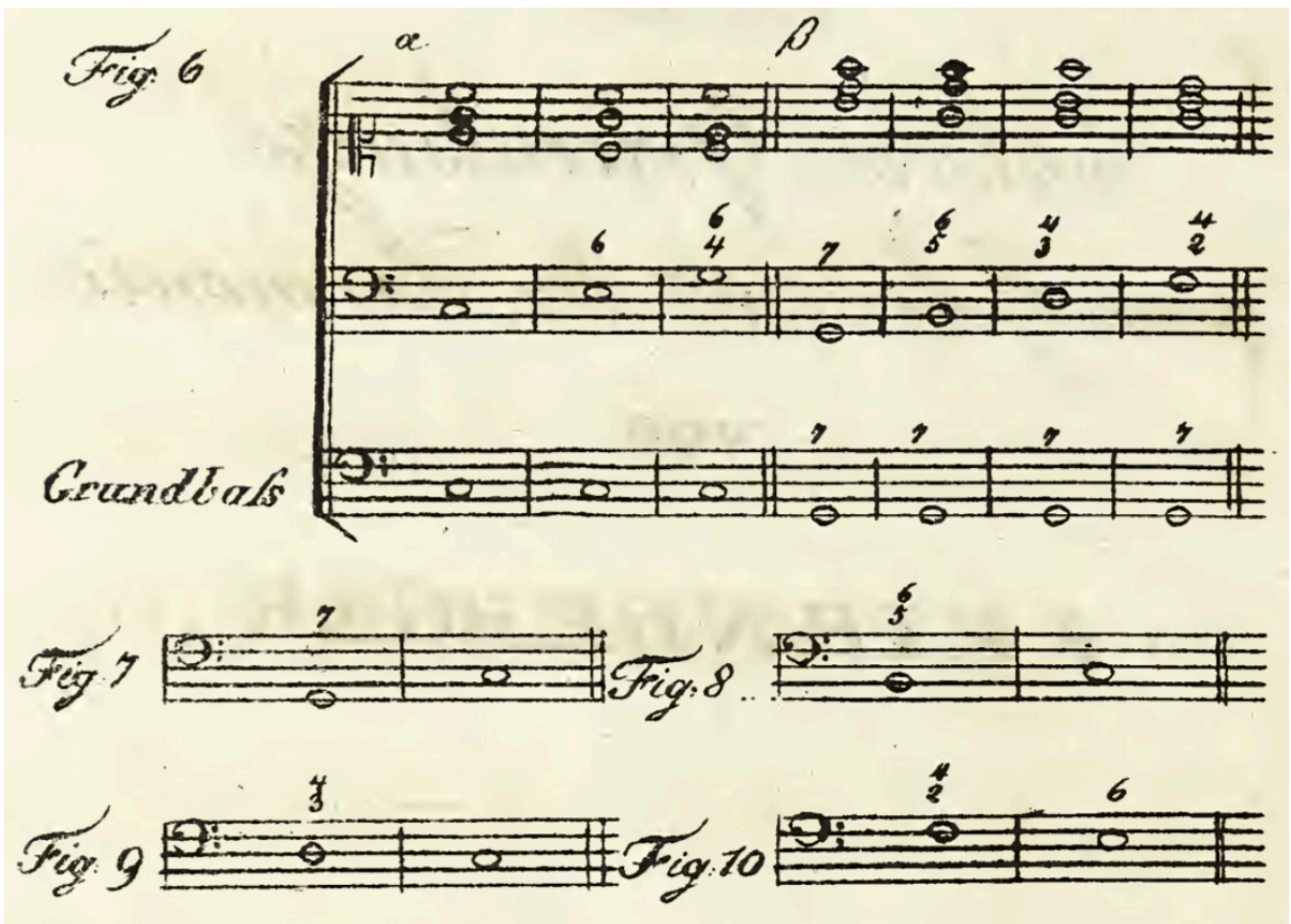
Example 6. Kirnberger's corresponding example in *Die wahren Grundsätze zum Gebrauch der Harmonie: Notenbeispiele*; (Kirnberger 1773, 98)



Example 7. Petri, *Anleitung* "Von den besondern Akkorden, welche stets beziffert werden"; (Petri 1782, 227)



Example 8. Kirnberger's theory of chordal inversions (mentioned by Nottebohm 1873, 6); (Kirnberger 1773, 4-5)



**Example 9.** Kirnberger's dominant seventh inversions (Fig. 7–10 as a–d respectively) in thoroughbass notation, with scale-degrees and tonic and dominant labels added.

a) 7                      b)  $\frac{6}{5}$                       c)  $\frac{4}{3}$                       d)  $\frac{4}{2}$

5 1                      7 1                      2 1                      4 3  
D T                      D T                      D T                      D T

**Example 10.** Kirnberger's tonic prolongation introduction; (Kirnberger 1773, 13 Notenbeispiele Figures 53 and 54)

a)                      b)                      c)                      d)

6                      6                      7 6                      7 6

**Example 11.** Kirnberger's tonic pedal prolongation; (Kirnberger 1773, 13 Notenbeispiele Figure 55). Arabic numbers, key, and harmonic function are editorial.

3 4 5 4 3  
1 2 3 2 1

①

FB:

C major: T

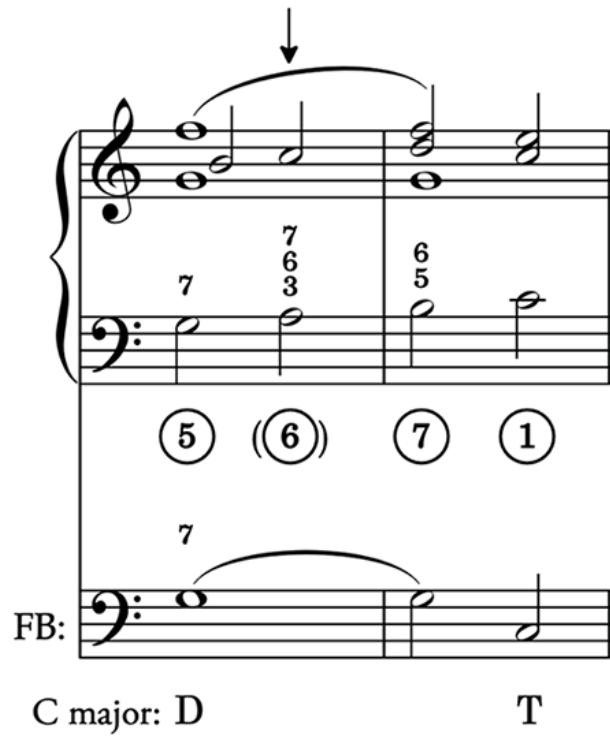
**Example 12.** Kirnberger's example of passing harmonies in a tonic prolongation; (Kirnberger 1773, 13 Notenbeyspiele Figure 55). Arabic numbers, key, and harmonic function are editorial.

7      6      6 5      [6] [4]      6 5 2      6  
 ①    (2)    ③    (4)    ⑤    (4)    ③  
 FB: T

**Example 13.** Modified Kirnberger tonic prolongation without top-voice pedal as a “feigned” or abandoned cadence

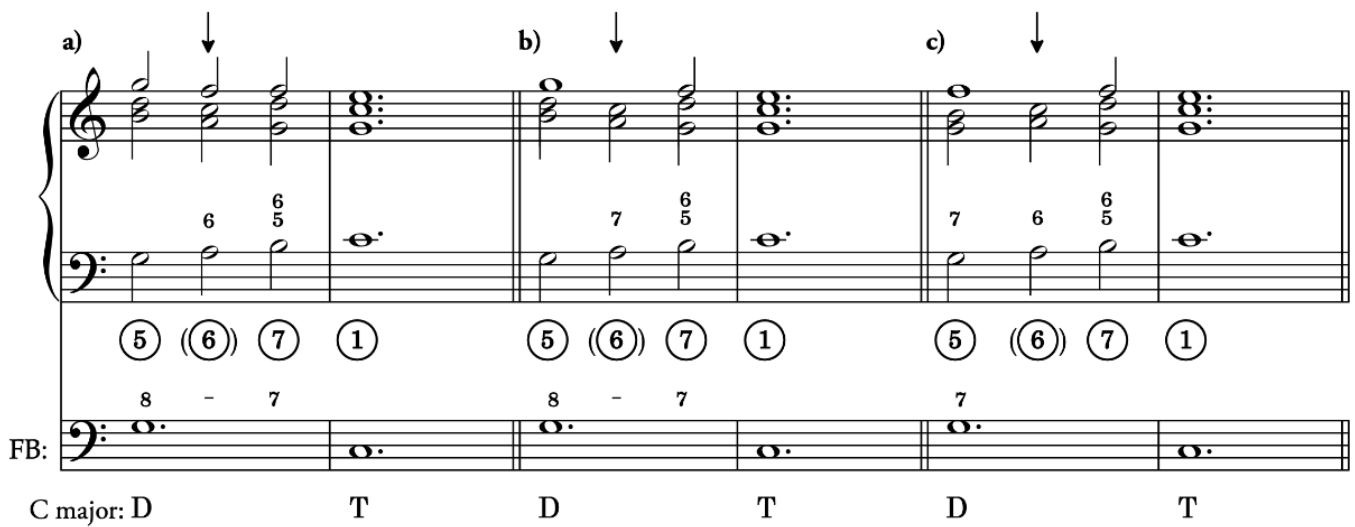
6      6      6 5      6 4      4 2      6  
 ①    ②    ③    ④    ⑤    ④    ③  
 T

**Example 14.** Kirnberger's dominant prolongation with passing harmony; (Kirnberger 1773, 13 Notenspiele Figure 55). Arabic numbers, key, and harmonic function are editorial.



The musical score for Example 14 consists of a grand staff and a figured bass line. The grand staff has a treble clef and a bass clef. The treble clef part contains a melody with a slur over the first two measures. The bass clef part contains a bass line with a slur over the first two measures. Below the grand staff, there are two rows of circles containing numbers: the first row has (5), ((6)), (7), (1); the second row has 7. Below the circles, there is a figured bass line with a slur over the first two measures. At the bottom, the text "C major: D" is written under the first measure and "T" is written under the second measure.

**Example 15.** Kirnberger's dominant prolongations with passing harmonies; (Kirnberger 1773, 14 Notenspiele Figure 55). Arabic numbers, key, and harmonic function are editorial.



The musical score for Example 15 is divided into three sections labeled a), b), and c). Each section has a grand staff and a figured bass line. Section a) has a treble clef part with a slur over the first two measures and a bass clef part with a slur over the first two measures. Section b) has a treble clef part with a slur over the first two measures and a bass clef part with a slur over the first two measures. Section c) has a treble clef part with a slur over the first two measures and a bass clef part with a slur over the first two measures. Below the grand staves, there are three rows of circles containing numbers: the first row has (5), ((6)), (7), (1); the second row has 8, -, 7; the third row has 7. At the bottom, the text "C major: D" is written under the first measure, "T" under the second, "D" under the third, "T" under the fourth, "D" under the fifth, and "T" under the sixth.



Example 16. Beethoven, Piano Sonata, op. 7, I, mm. 5–8

Continuation (cont.)

fragment

5

6 6 6 6 5

① ② ③ ⑤ ⑥ ⑦

T (P) T<sup>6</sup> D (P) D

Example 17. Beethoven, Violin Sonata, op. 47 "Kreutzer," mm. 92–99 (Subordinate Theme)

Compound Presentation

CBI

92 93 94 95 96 97 98 99

CBI (varied)

① ② ③<sup>6</sup> ④<sup>6</sup> ① ② ③<sup>6</sup> ④<sup>6</sup>

T (P) T<sup>6</sup> PD T (P) T<sup>6</sup> PD

**Example 18.** Kirnberger's dominant and tonic prolongations in the minor mode; (Kirnberger 1773, 14 Notenbeispiele Figure 55). Arabic numbers, key, and harmonic function are editorial.

The score for Example 18 is divided into three sections: a), b), and c). Each section has a treble clef staff, a bass clef staff, and a figured bass (FB) staff. Section a) shows a sequence of chords with fingering (7, 5), (2), 4, (3), 4, (2) and harmonic analysis 7 5, 5 3, 4 2, 6. Section b) shows chords with fingering ((6)), 7, 5, 3 and harmonic analysis 4 2, 5 3, 7 #. Section c) shows chords with fingering (5), 3, (1), 5 and harmonic analysis [6], 6, #. Below the FB staff, the key is identified as A minor and the harmonic functions are D, T, D, T, D.

**Example 19.** Kirnberger's prolongation of ④ in the bass with double prolonging harmonies; (Kirnberger 1773, 15 Notenbeispiele Figure 58). Arabic numbers, key, and harmonic function are editorial.

The score for Example 19 shows a sequence of chords in the treble clef staff with fingering (4), (5), (6), 4, 5 and harmonic analysis 6 4, 6 4 2, 7 5. Above the first two chords are asterisks in brackets [\*]. Below the treble staff, the key is identified as A minor and the harmonic functions are ④, ⑤, ⑥, ④, ⑤. The word "or" is placed between the treble and bass staves, followed by a 7 in the bass staff.

**Example 20.** Kirnberger's hypermetric prolongation of tonic harmony; (Kirnberger 1773, 15 *Notenbeispiele* Figure 59). Arabic numbers, key, asterisk, and harmonic function are editorial.

[\*]  
7          6

①    (②)    ③    ④  
T    (P)    T<sup>6</sup>

**Example 21.** Kirnberger's most common fundamental bass progressions; (Kirnberger 1773, 20 *Notenbeispiele* Figure 85)

7    7    7    7    7    7

**Example 22.** Kirnberger's "secondarily" common fundamental bass progression by thirds (or ascending inverted sixths) [Arabic scale-degrees added] (Kirnberger 1773, 20 *Notenbeispiele* Figure 86)

①    ⑥    ④    ②    ⑤    ①

**Example 23.** Kirnberger's typical stepwise fundamental bass progression (indicated by +);  
 (Kirnberger 1773, 20 Notenbeispiele Figure 87).

**Example 24.** Beethoven, Piano Sonata in E-flat major, I, mm. 1–10 (WoO 47, 1783)

Hybrid (Sentential)  
 CBI (expanded)

*Allegro cantabile* b.i. ext. b.i. (cont.)

E-flat major: (1) T

CBI (cont.) c.i. ext. c.i. (cont.)

Continuation fragment % % Cadential %

(5) D

(1) T (6) (4) (2) (5) D HC

**Example 25.** Bass model of Beethoven, Piano Sonata in E-flat major, I, mm. 1–10 (WoO 47, 1783)

CBI (exp.)		Continuation				Cadential (HC)	
b.i.		c.i.		frag.		%	
(x4)		(x4)					
E-flat:		①	⑤	①	⑥	④	②
		T	D	T			D

**Example 26.** Bass model of Beethoven, Piano Sonata in F minor, I, mm. 10–17 (WoO 47, 1783)

Sentence (compressed)		Continuation		Cadential (HC)	
Pres (compressed)		frag.		%	
b.i.		%		%	
①		①		⑥	④
T		T		D	

Example 27. Beethoven, Piano Sonata in F minor, I, mm. 10–17 (WoO 47, 1783)

Thematic Introduction  
 Presentation (compressed)  
 b.i. (compressed) %  
 Continuation fragment

10 *f* 11 12 13

F minor: ① T ①

Continuation (cont.) %  
 %  
 Cadential %  
 SotD (2-m.)

14 15 16 17

⑥ ④ ⑤

D  
 HC

Example 28. Beethoven, Piano Sonata in C minor, op. 13, I, mm. 11–15

Main Theme  
 Presentation  
 b.i. %  
 cresc.

11 *p* Allegro molto e con brio

① T

Example 29. Beethoven, op. 39, no. 2, mm. 1-11

Presentation  
b.i. b.i.

Continuation fragment

1 2 3 4 5 6

C major: ①

① ⑦ ⑥ ②  
G major: ② ⑤ ①

Continuation (cont.)  
fragment fragment model (modified) sequence sequence

7 8 9 10 11

G major: ⑦ ③ ⑥

D major: ② ⑤ → ① ⑦ ⑥ ②

A major: ② ⑤ → ① ⑦ ⑥ ②

E major: ② ⑤

Example 30. Beethoven, op. 39, no. 2 Modulation Scheme

1 2 3

C maj: ① ⑦ ⑥ ②

G maj: ② ⑤ ①

Example 31. Vogler's Zirkelmäßige Fortschreitungen von einem willkührlichen Tone in alle andere Fünftenweis vorwärts; (Vogler 1776, XXVIII)

L.  
f. 1.

The diagram is a circular musical chart titled "harte Tonarten" (sharp-key tonalities). It features a central circle with the text "harte Tonarten" and an inner ring of notes: A, B, C, D, E, F, G. The outer ring contains the corresponding sharp-key tonalities: A<sup>s</sup>, B, C, D, E, F<sup>s</sup>, G, A<sup>s</sup>, B, C, D, E, F<sup>s</sup>, G, A<sup>s</sup>. The chart is divided into 12 radial segments, each representing a starting note. Each segment contains a sequence of notes and rests, illustrating the "Zirkelmäßige Fortschreitungen" (circular progressions) in fiveths. The notes are written on a circular staff with a treble clef and a key signature of one sharp (F#). The diagram shows how a single note can progress through all other notes in a five-step cycle, demonstrating the concept of "Fünftenweis vorwärts" (forward in fifths).



Example 32. Jacob Adlung *Cirkelgänge* (top: ascending fourth; bottom: ascending fifth); (Adlung 1783, 387–90)

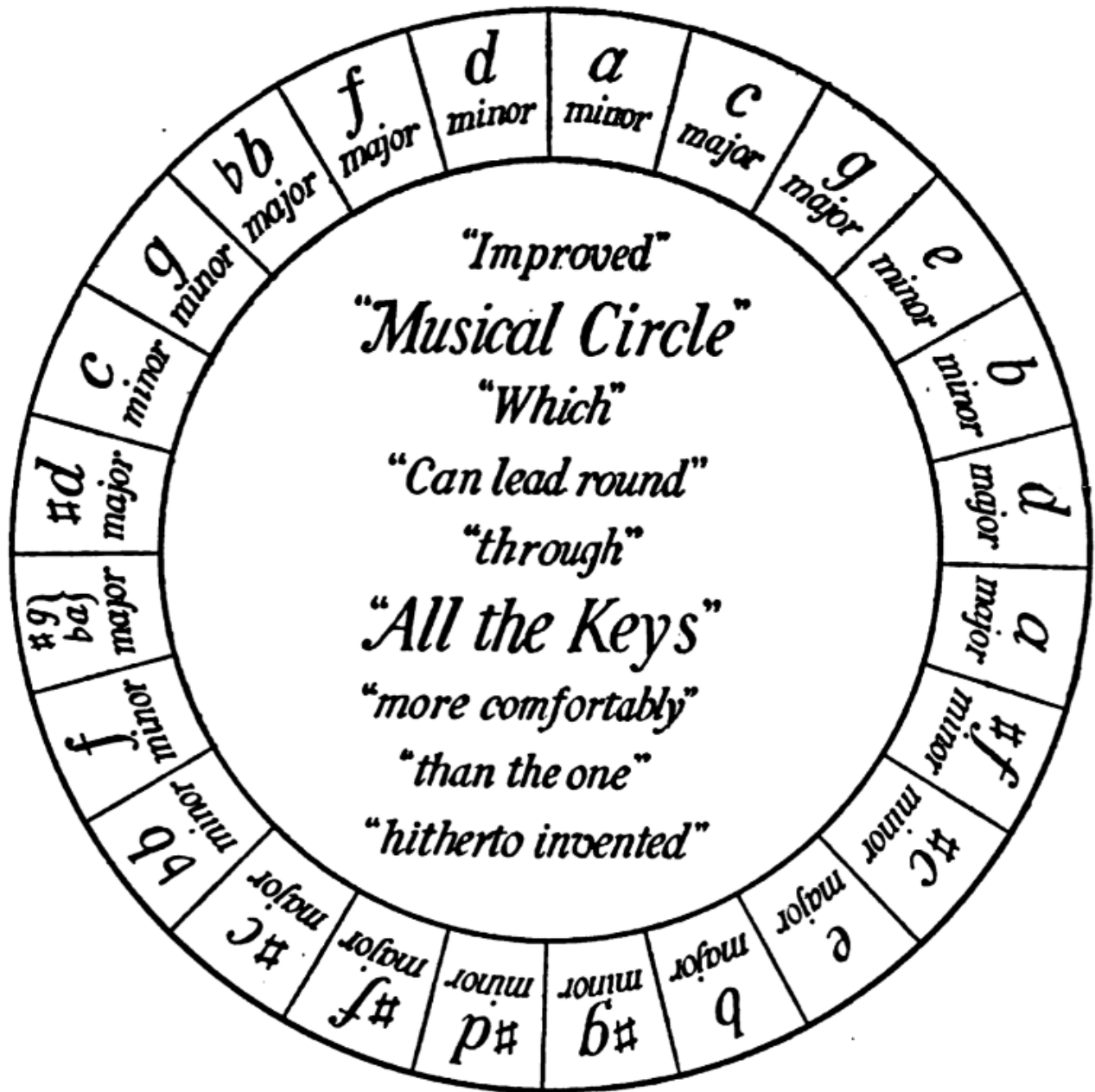
The image displays six figures of musical exercises, labeled Fig. 13 through Fig. 18, arranged vertically. Each figure is written on a grand staff consisting of a treble clef and a bass clef. The notes are represented by black dots on the staff lines, with various accidentals (flats, naturals, sharps) placed above or below the notes. Figure 13 includes the handwritten text "Denn mir geingisich ist für bb, wahr 9. 62." written below the staff. Figures 14, 15, 16, 17, and 18 each have a small "B." or "b." written below the staff, likely indicating a specific key signature or starting point. The notation is characteristic of 18th-century manuscript notation.

**Example 33.** Petri Modulation Examples from C major to G major (Nottebohm highlights the boxed pattern); (Petri 1782, 257)

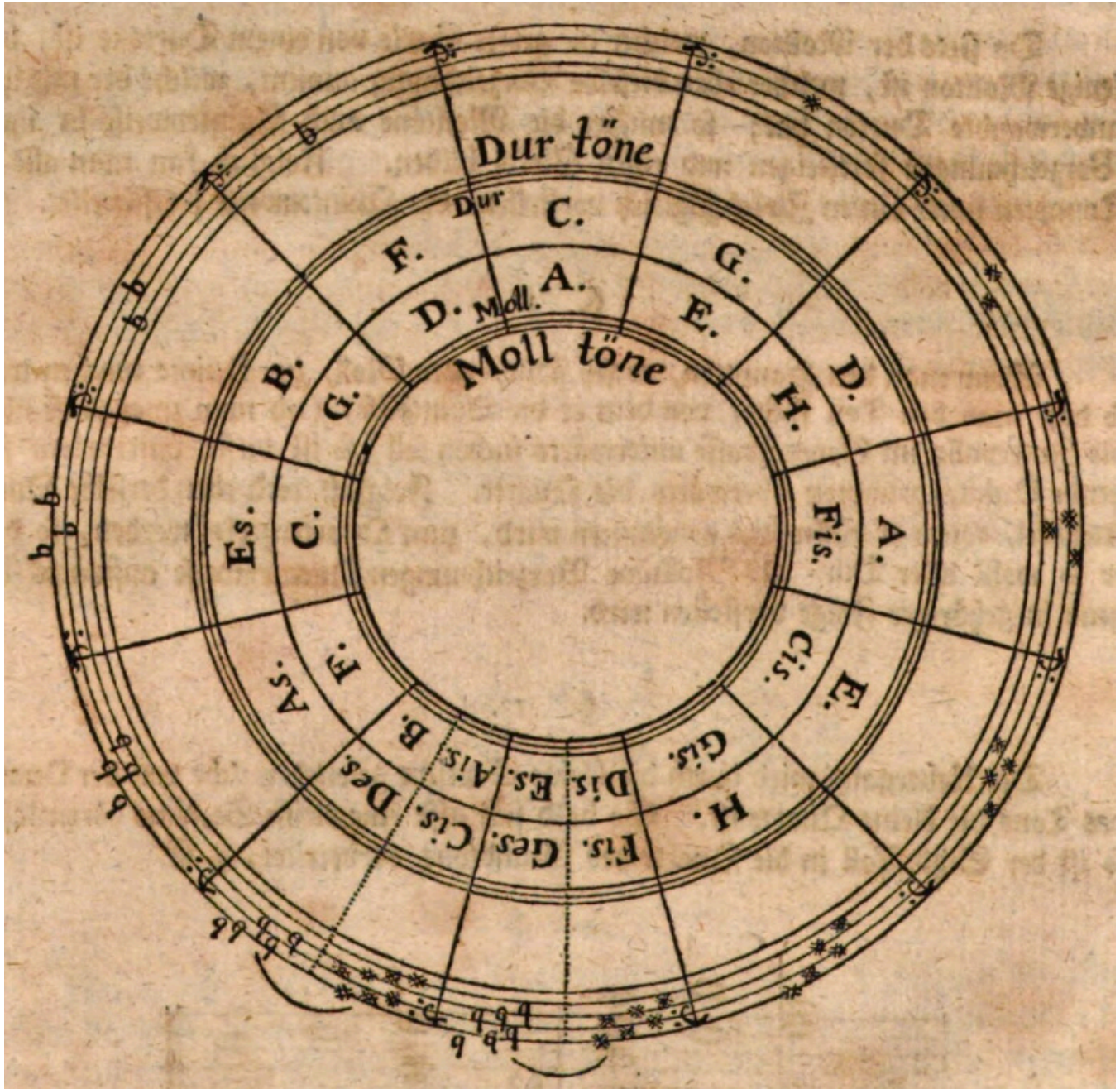




Example 35. Mattheson's Circle (Arnold 1931, 277)



Example 36. Petri Circle of Keys; (Petri 1782, 220)



**Example 37.** Transcription of Vogler's Modulation by Fifths Upwards Circle (keys and circled Arabic scale steps in mm. 1–2 are editorial)

1 2 3 4

5 6 7 8

9 10 11 12

C: ① ⑦ ⑥

G: ② ①

**Example 38.** Beethoven, op. 39, Prelude 2, mm. 20–21; enharmonic seam

m. 20

Example 39. Beethoven, op. 39, Prelude 1, mm. 38–58

38

C#M: I

42

47

*f* *p*

C#m: i

52

Cm: V<sub>5</sub><sup>6</sup> V<sub>2</sub><sup>4</sup> i<sup>6</sup>

56

*f* *p*

DbM: V<sub>2</sub><sup>4</sup> vi ii V I

Example 40. Excerpt of Vogler's modulation patterns, from C major to D $\flat$  major and C $\sharp$  minor

**Ausweichungen vom harten C**

ins harte Des                      ins weiche Cis

CM: I    i                      I                      I  
 D $\flat$ M: V $^7$  I                      C $\sharp$ m: vii $^{o7}$  i

Example 41. Excerpt of Vogler's modulation patterns, from C minor to D $\flat$  major and C $\sharp$  minor

**Vom weichen C**

ins harte Des                      ins weiche Cis

Cm: i                      i  
 D $\flat$ M: V $^4_2$  V $^7$  I                      C $\sharp$ m: V $^6$  vii $^{o7}$  i



Example 42. Vogler Gründe p. 1, Tab. II Partial Transcription and Analysis

Tab. II  
f. 1.

## Schlüssel der Tonkunst.

<i>Französischer Violin Schlüssel</i>		h c d e f g a h c d e f g a h c d e f g a
<i>Gewöhnlicher Violin Schlüssel</i>		g a h c d e f g a h c d e f g a h c d e f
<i>Gewöhnlicher Discant Schlüssel</i>		c d e f g a h c d e f g a h c d
<i>Halb Discant Schlüssel</i>		c d e f g a h c d e f g a h
<i>Alt Schlüssel</i>		c d e f g a h c d e f g a h c d e f g
<i>Tenor Schlüssel</i>		c d e f g a h c d e f g a h c d e
<i>Halb Bass Schlüssel</i>		c d e f g a h c d e f g a h c
<i>Gewöhnlicher Bass Schlüssel</i>		C D E F G A H c d e f g a h c d e f g a

fig. 2.

fig. 3.

fig. 4.

Noten	Pausen
ganze	
halbe	
viertel	
achtel	
sechzehntel	
zwei und dreisigstel	

von zwei schlägen   
von vier schlägen

fig. 5. *Tacte* *grade.*

Ganzer Tact

Allabreve

Zwei Viertels

Sechs Achtels

Zwölf Achtels

Drei Viertels *ungrade*

Drei Achtels

Neun Achtels

Example 43. Vogler Gründe p. 1, Tab. III

*Zwölf harte Tonarten.* Tab. III

The page displays twelve staves of musical notation, each corresponding to a different key signature: C, G, D, A, E, H, F, B, Es, As, Des, and Ges. Each staff contains a sequence of notes and rests, with fingerings indicated by numbers 0-4 and 'z' for natural harmonics. The notation is in a style typical of 18th-century guitar tablature. At the bottom, there are three figures (fig. 3, fig. 4, fig. 5) showing more complex rhythmic and melodic patterns.

Example 44. Tab XVI, Fig. 5; Practical [Patterns] for Piano Tuning

*f. 5. Praktisches Clavierstimmen.*

I K L M N O P Q R

S T U V X Y Z II RR LL MM

NN OO PP QQ RR SS TT UU VV XX

This musical score consists of three staves of music. The first staff contains chords for letters I through R. The second staff contains chords for letters S through Z, II, RR, LL, and MM. The third staff contains chords for letters NN through XX. The chords are written in a treble clef with a common time signature. The notes are arranged in a way that allows for easy identification of the letter associated with each chord.

Example 45. Tab XVI, Fig. 6–11; “Testing the Tone for Piano Tuning through Harmonies”

*f. 6. Tonprüfung für das Clavierstimmen durch Harmonien.*

1 2 3 4 5 6 7 8

9 10 11 12

*f. 7. f. 8. f. 9.*

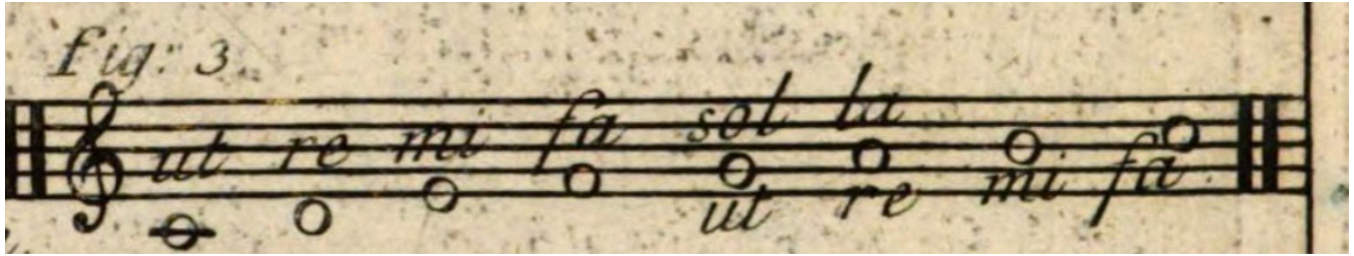
*f. 10.*

*f. 11.*

$\frac{1}{3}$   $\frac{1}{4}$   $\frac{1}{5}$   $\frac{1}{6}$   $\frac{1}{8}$   $\frac{1}{9}$   $\frac{1}{10}$   $\frac{1}{11}$   $\frac{1}{12}$  Hauptkl.:  $\frac{11}{9}$   $\frac{10}{8}$

This musical score is divided into five sections, labeled f. 6 through f. 11. Section f. 6 consists of two staves of music with 12 numbered measures. Section f. 7 consists of two staves of music. Section f. 8 consists of two staves of music. Section f. 9 consists of two staves of music. Section f. 10 consists of two staves of music. Section f. 11 consists of two staves of music. The score includes various musical notations, including notes, rests, and dynamic markings. At the bottom of the page, there are several mathematical fractions representing ratios:  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\frac{1}{6}$ ,  $\frac{1}{8}$ ,  $\frac{1}{9}$ ,  $\frac{1}{10}$ ,  $\frac{1}{11}$ ,  $\frac{1}{12}$ , and a 'Hauptkl.' (main key) section with ratios  $\frac{11}{9}$  and  $\frac{10}{8}$ .

Example 46. Vogler's Gründe, Tab VII, Fig. 3



Example 47. Vogler's Gründe p. 5, Tab VI, Fig. 1

Tab. VI.  
f. 1.

Erste Singleiter ~  
hinäuf

ut-re re-mi mi-fa fa-sol ut-re re-mi mi-fa

Grund- und Hauptklänge

herunter

fa-mi mi-re re-sol sol-fa fa-mi mi-re re-ut

This image shows a complex handwritten musical score. It consists of several staves. The top staff is a vocal line with the lyrics 'ut-re re-mi mi-fa fa-sol ut-re re-mi mi-fa'. Below it are two staves of guitar tablature, with numbers and sharps indicating fret positions. The middle section is labeled 'Grund- und Hauptklänge' and shows a sequence of chords. The bottom section is labeled 'herunter' and shows another sequence of chords and tablature. The score is written in a cursive style with various musical notations and dynamic markings.

Example 48. Vogler's Gründe p. 6, Tab VII, Fig. 1

*Fig. 1.* *Zwote Singleiter* *Tab. VII.*

*hinauf*

ut-re re-mi mi-fa fa-sol ut-re re-mi mi-fa

*herunter*

fa-mi mi-re re-ut sol-fa fa-mi mi-re re-ut

Example 49. Vogler's Gründe, Tab VIII, Fig. 1

*Tab. VIII.* *Dritte* *hinauf.*

*f. 1*

ut re re mi mi

ut re re mi mi

*Hauptkl.*

Example 50. Vogler's *Gründe*, Tab IX, Fig. 1 excerpt

This musical score is for a guitar piece titled "Singleiter herunter" (Tab IX). It features a vocal line and a guitar tablature. The vocal line is written in a treble clef with a key signature of one sharp (F#) and a 4/4 time signature. The lyrics are "fa - mi mi - re re". The guitar tablature is written in a bass clef and uses numbers 0-7 to indicate fret positions. The piece is marked "f. i." and "Hauptkl.".

Example 51. Vogler's *Gründe*, Tab X, Fig. 1 and 2

This musical score is for a guitar piece titled "Singleiter herunter" (Tab X). It features two vocal lines and a guitar tablature. The vocal lines are written in a treble clef with a key signature of one sharp (F#) and a 4/4 time signature. The lyrics are "Jah - re Wo - chen Ta - ge Stunden Au - gen - bli - cke gehn oor bei" and "Jah - re wo - chen Ta - ge Stunden Au - - - genblicke". The guitar tablature is written in a bass clef and uses numbers 0-7 to indicate fret positions. The piece is marked "f. 1." and "Hauptkl.".

Example 52. Analysis of Vogler's *Gründe*, Tab X, Fig. 1 and 2

Fig. 1

Tonic Prolongation

Cadence

Figured bass notation for Fig. 1:

	7	5 3	6 4	7 <sup>b</sup> 5 2		3 <sup>‡</sup>	
①	⑤	①	①	①	④	⑤	①
I	V <sup>7</sup>	I	IV <sup>6</sup> <sub>4</sub>	V <sup>7</sup>	IV	V	I
T				ECP			PAC

Fig. 2

Tonic Prolongation

Cadence

Figured bass notation for Fig. 2:

	6	6	6		6 4	5 3	
①	⑥	③	②	①	⑤	⑤	①
I	(IV <sup>6</sup> )	I <sup>6</sup>	(vii <sup>o6</sup> )	I	IV	V	I
T					PD	D	PAC

Example 53. Vogler's *Gründe* Tab IX, Fig. 2-6



Example 54. Vogler's *Gründe*, Tab XI, Fig. 3

Handwritten musical score for Example 54. It features six treble clef staves and one bass clef staff at the bottom. The upper staves contain melodic lines with lyrics 'Hal=' and 'leluja' written across them. The bass staff contains a figured bass line. Dynamic markings 'f.3.' and '7' are present. The notation includes various note values, rests, and slurs. The paper is aged and shows some staining.



Example 55. Vogler's *Gründe*, Tab XII, Fig. 1

Tab. XII. *Adagio* *Arie*

Sing stimm. *O laß mich hier zu dei = nen Füßen den*

ausgesetzte Zierlichkeiten *O laß = mich hier = zu dei = nen Füßen den*

Begleitung rechte Hand *O laß = mich hier = zu dei = nen Füßen den*

linke Hand *O laß = mich hier = zu dei = nen Füßen den*

Hauptklänge.

1 0 2 3 7 4 0

Example 56. Vogler *Gründe*, Tab XI, Fig. 4-21

f.4. f.5. f.6.

f.7. f.8. f.9.

f.10. f.11. f.12.

f.13.

f.14. f.15. f.16. f.17. f.18. f.19. f.20.

laß mich küßen.

f.21.

Example 57. Vogler's Gründe, Tab: VII

*Zwote Singleiter* Tab. VII.

*Fig. 1.* *hinauf*

ut-re re-mi mi-fa fa-sol ut-re re-mi mi-fa

*Stauptkl.*

*herunter*

fa-mi mi-re re-ut sol-fa fa-mi mi-re re-ut

*Fig. 2.* *Fig. 3.*

O laß mich hier zu dei-nen füßen. ut re mi fa sol la ut re mi fa

*f. 4.* *f. 5.* *f. 6.* *f. 7.* *f. 8.*

*Stauptkl.*

*f. 10.*

*Stauptkl.*

**Example 58.** Vogler's Rule of the Octave; (Vogler 1778, VII Fig. 9). Arabic numbers for bass scale-degrees, brackets, and English text below are editorial. Bracketed figures are not written but implied by the realized right hand.

Hauptkl:

Ascending RO

Descending RO

**Example 59.** Vogler's *Gründe*, Tab VII, Fig.. 10; Vogler's ascending 5-6 and descending 7-6 progressions

Hauptkl:

Example 60. Beethoven, op. 39, Prelude 1, mm. 20–26

20

⑤      (♯5) ⑥<sup>5-6-#6</sup>      (♭7)<sup>6</sup>      ⑦<sup>#5-6-#6</sup>      ①<sup>6</sup>      (♯1)<sup>6</sup>      ②<sup>5</sup>      (♯2)<sup>6</sup><sub>#3</sub>

24

③      ④<sup>5</sup>      (♯4)<sup>6</sup>      ⑤      (♯5)      ⑥      ⑦      ①      ②<sup>3-#3</sup>      ②<sup>6</sup><sub>4</sub>      (♯2)<sup>6</sup><sub>4</sub>

Example 61. Vogler's *Gründe*, Tab XVII, Fig. 1–5

f. 1. I. Unterhaltungs

Anwendung der Siebente verminderten

Tab: XVII

Hauptkl:

Anw: der Siebente des siebenten Tones der härten Leiter.

Example 62. Vogler's *Gründe*, Tab XVII, Fig. 1-5, transcribed

Fig. 1 Unterhaltungs

Fig. 2 verminderten

Hauptkl[ang]:

Anw[endung]: der Siebente des siebenten Tones der harten Leiter

The musical score is divided into five figures (Fig. 1-5). Fig. 1, titled 'Unterhaltungs', consists of six measures of guitar tablature and piano accompaniment. Fig. 2, titled 'verminderten', consists of four measures. Fig. 3 consists of two measures. Fig. 4 consists of two measures. Fig. 5 consists of four measures. The main key signature is 'Hauptkl[ang]:' and the application note is 'Anw[endung]: der Siebente des siebenten Tones der harten Leiter'. The notation includes a top staff with chords and accidentals, a middle staff with guitar tablature, and a bottom staff with a piano accompaniment.

Example 63. Vogler's *Gründe*, Tab XVIII, Fig. 1 and 2

Tab. XVIII. Anwendung der Übelklänge.

f.1.

f.2.

Example 64. Vogler's *Gründe*, Tab XXI, Fig. 5, Ten Cadences

f.5. Zehn Schlußfälle.

V I IV I I V VII I IV V II V

Example 65. Vogler's Leading-tone Cadence Patterns

a)	b)	c)	d)	e)
C maj: vii <sup>o4</sup> <sub>3</sub> I	vii <sup>o4</sup> <sub>3</sub> V	A min: vii <sup>o4</sup> <sub>3</sub> i	It <sup>6</sup> V	Fr <sup>4</sup> <sub>3</sub> V
	7 5	7 $\flat$	3 $\flat$ 3 $\sharp$	$\begin{matrix} 7 \\ 5 \\ 3\sharp \end{matrix}$ 3 $\sharp$
FB: VII I	IV V	VII I	IV V	II V

Example 66. Vogler's Gründe, Tab XXI, Fig. 6 and 7 (sequences with descending fifths)

Schlussfallmäßige Versetzung der weichen Reiter.

Example 67. Vogler's Gründe, Tab XXI, Fig. 6 & 7 Transcribed (darker bars added)

Fig. 6

Fig. 6 is a musical score for guitar, consisting of two systems. Each system has three staves: a treble clef staff with standard notation, a bass clef staff with standard notation, and a guitar tablature staff. The first system has four measures. The first two measures of the first system have a dark grey background. The second system also has four measures, with the first two measures having a dark grey background. The tablature consists of numbers 1-7 on the strings, with some measures containing multiple numbers for chords. The standard notation is in a key with one sharp (F#) and a 3/4 time signature.

Fig. 7

Fig. 7 is a musical score for guitar, consisting of two systems. Each system has three staves: a treble clef staff with standard notation, a bass clef staff with standard notation, and a guitar tablature staff. The first system has four measures. The first two measures of the first system have a dark grey background. The second system also has four measures, with the first two measures having a dark grey background. The tablature consists of numbers 1-7 on the strings, with some measures containing multiple numbers for chords. The standard notation is in a key with one sharp (F#) and a 3/4 time signature.



Example 68. Vogler's *Gründe*, Tab XXIII, Fig. 1; Modulations from C major to every other key

*Ausweichungen vom harten C* Tab. XXIII

*ins harte Des. ins weiche Cis. h. D. w. D. h. Fis. w. Fis. h. E.*

1 *w. E.* 2 *h. F.* 3 *w. F.* 4 *h. Fis.* 5 *w. Fis.* 6 *h. G.* 7 *w. G.*

8 *h. As.* 9 *w. As.* 10 *h. A.* 11 *w. A.* 12 *h. B.* 13 *w. B.* 14

15 *h. H.* 16 *w. H.* 17 *H.* 18 *ins harte Des.* 19 *ins weiche Cis* 20 *C.*

21 22 23 24

Detailed description: This is a historical musical manuscript page titled 'Ausweichungen vom harten C' (Modulations from C major) from 'Tab. XXIII'. It contains 24 numbered measures, each demonstrating a modulation to a different key. The keys are: 1. w. E. (E-flat), 2. h. F. (F major), 3. w. F. (F-flat), 4. h. Fis. (F-sharp), 5. w. Fis. (F-sharp flat), 6. h. G. (G major), 7. w. G. (G-flat), 8. h. As. (A-flat), 9. w. As. (A-flat flat), 10. h. A. (A major), 11. w. A. (A-flat), 12. h. B. (B major), 13. w. B. (B-flat), 14. (unlabeled), 15. h. H. (C major), 16. w. H. (C-flat), 17. H. (C major), 18. ins harte Des. (D-flat), 19. ins weiche Cis (C-sharp), 20. C. (C major), 21-24. (unlabeled). Each measure is written on a grand staff (treble and bass clefs) with a key signature and a guitar-style tablature below the notes. The tablature uses numbers 0-7 on the strings and letters 'h' and 'w' for natural and flat accidentals respectively.

Example 69. Vogler's Gründe, Tab XXVI, Fig. 1-4

Tab: XXVI.

*Widrige Bewegung*  
*in der harten* *in der weichen Tonart.*

f. 1.

f. 2.

f. 3.

f. 4.

Vom h. C. ins w. vom w. C. ins h. vom h. E. ins w. vom w. E. ins h. vom h. G. ins w. vom w. G. ins h.

Dis H

Example 70. Vogler's *Gründe*, Tab XXVIII, Fig. 2; Modulation by ascending fifths, minor keys

f. 2.

The diagram is a circular representation of musical relationships. At the center is a circle containing the text "weiche Tonarten". Surrounding this is a ring of major keys: B, F, C, G, D, A, E, H, F#, C#. The outermost ring contains minor keys: A, E, B, F, C, G, D, A, E, H, F#, C#. The diagram is filled with musical notation, including notes, accidentals, and fingerings, illustrating the relationships between these keys. The notation is arranged in concentric circles and radial lines, showing the progression of keys by ascending fifths.

Example 71. Vogler's *Gründe*, Tab XXIX, Fig. 1; Modulation by descending fifth, major keys

f. 1

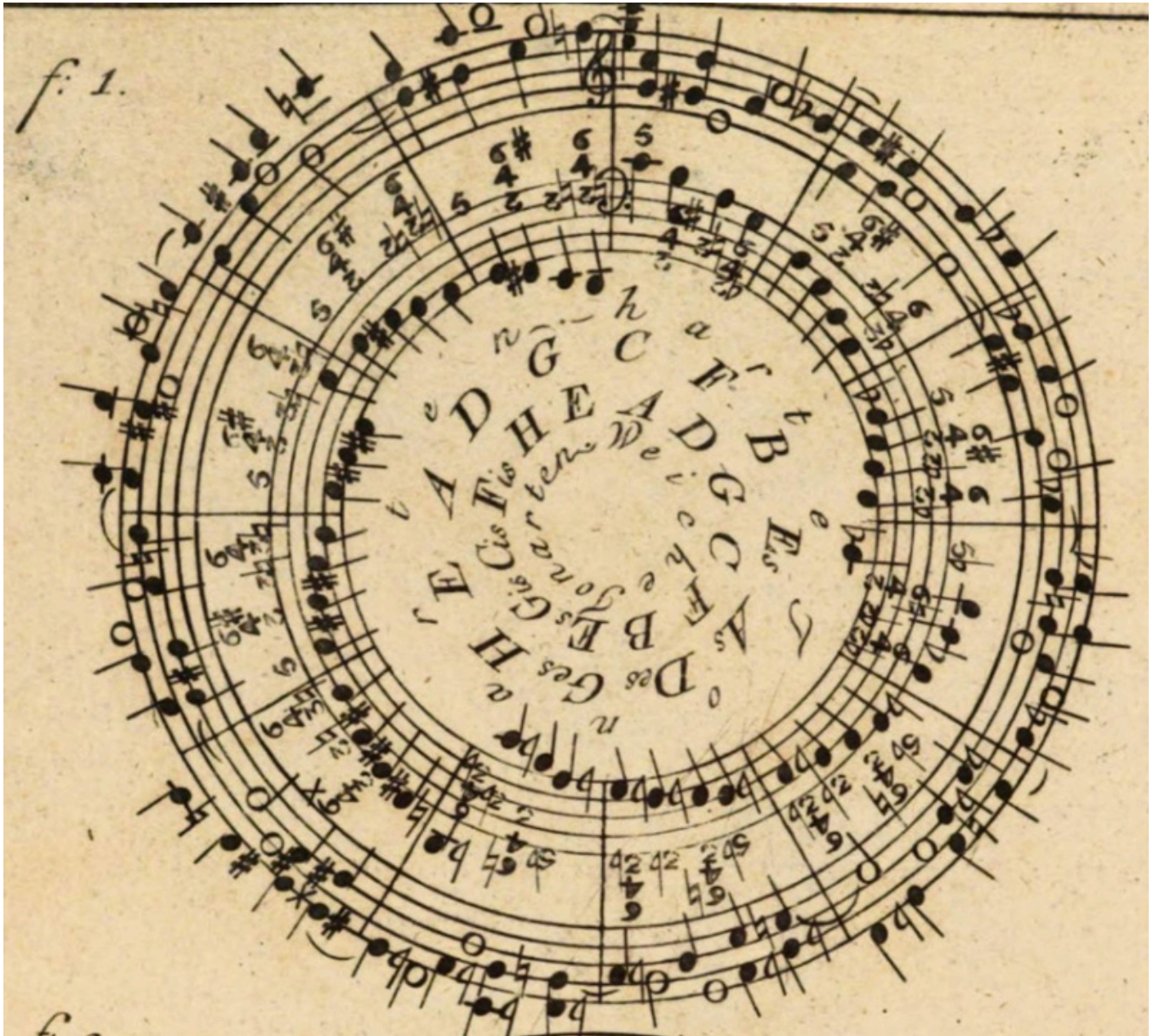
The diagram is a circular representation of a musical scale and its modulations. At the center is a circle containing the text "harte Tonarten". Surrounding this are several concentric rings. The innermost ring contains the letters A, D, G, C, F, B, E, A, which correspond to the notes of the A major scale. The next ring out contains the letters H, D<sup>es</sup>, F<sup>is</sup>, H, D, G, C, F, which correspond to the notes of the D major scale. The outermost ring contains the letters A, D, G, C, F, B, E, A, which correspond to the notes of the A major scale. The diagram is filled with musical notation, including notes, stems, and fingerings (numbers 1-5). The notation is arranged in a circular pattern, with the notes of the scale and their modulations by descending fifth (A to D, D to G, G to C, C to F, F to B, B to E, E to A) clearly visible. The diagram is a complex piece of musical notation, showing the relationship between the notes of the scale and their modulations by descending fifth.

Example 72. Vogler's *Gründe*, Tab XXIX, Fig. 2; Modulation by descending fifth, minor keys

f. 2.

The diagram is a circular representation of the circle of fifths for minor keys. At the center, the text "weiche Tonarten" (soft keys) is written. Surrounding this are the letters A, D, G, C, F, B, E, A, S, D, F, H, which represent the notes of the keys. The diagram is divided into 12 segments, each representing a key signature. Each segment contains a five-line staff with musical notation, including notes, accidentals, and fingerings. The segments are arranged in a circle, with the keys being: A minor, D minor, G minor, C minor, F minor, B minor, E minor, A minor, D minor, G minor, C minor, F minor. The diagram illustrates the relationship between these keys and their corresponding notes on the staff.

Example 73. Vogler's *Gründe*, Tab XXX, Fig. 1; From an arbitrary to key all other major and minor keys



Example 74. Transcription of Tab XXX, Fig. 1

Major Keys: C  
 Minor Keys: A

F B $\flat$  G E $\flat$  C

Example 75. Scale Step Analysis of Tab XXX, Fig. 1 excerpt

C Maj: (1) (7)  
 A min: (2) (1) (↓7)  
 F maj: (2)

Example 76. Interlocking Ascending P4 or Descending P5 Patterns

Example 77. Vogler's *Gründe*, Tab XXX, Fig. 2; chromatic conjunct movement filling a minor third structured with the three diminished seventh harmonies

f. 2.

*d f G is h*

*Drei Harmonien mit der verminderten Siebente.*

*Cis b*

*Dis f s a c*



Example 78. Tab XXX, Fig 2., Sector *d f Gis h* (transcription)

1                                  2                                  3                                  4                                  5

7<sup>b</sup> 5<sup>b</sup> 7<sup>b</sup> 6<sup>b</sup> 4<sup>b</sup>      7 5 3 7 6 4      7 7 6 4      7<sup>b</sup> 7<sup>b</sup> 5<sup>b</sup> 4      6<sup>b</sup> 4 7 5 3 6 4



Example 80. Partial transcription and Analysis of Vogler's *Gründe*, Tab XXVI, Fig. 5

Gis G			Cis C			Fis F			H B		
7	6#	6b	4	4	4	7	6#	6b	4	4	4
5#	5#	5#	3	2#	2b	5	5	5	3	2	2b

H                      E                      A                      D

Example 81. Beethoven, op. 39, no. 1, mm. 1-6

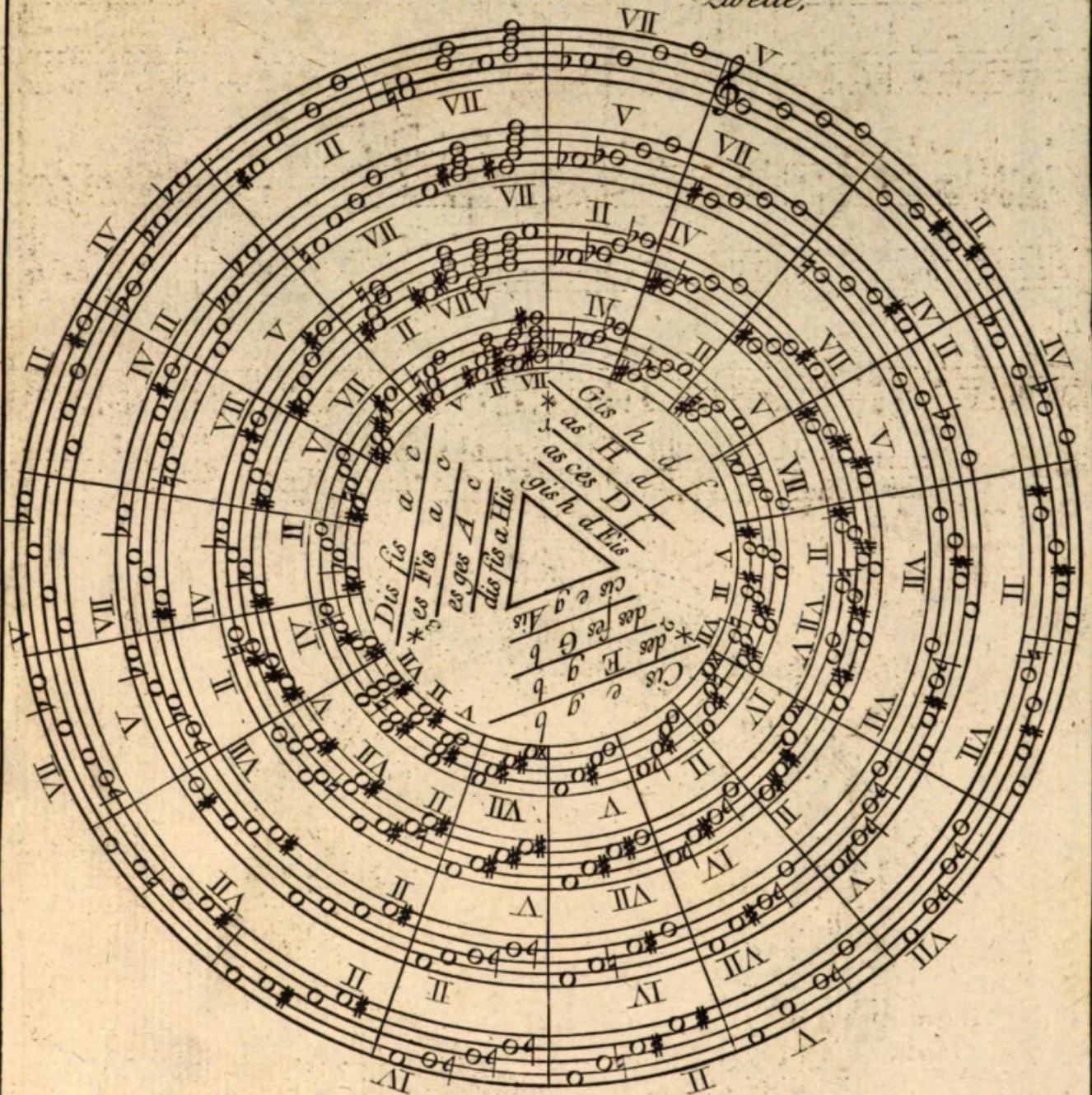
Example 82. Vogler's Gründe, Tab XXVII

Tab. XXVII

*Die vier entscheidende  
schlußfällmäsige Töne*

*Der fünfte von beiden  
Tonarten.*

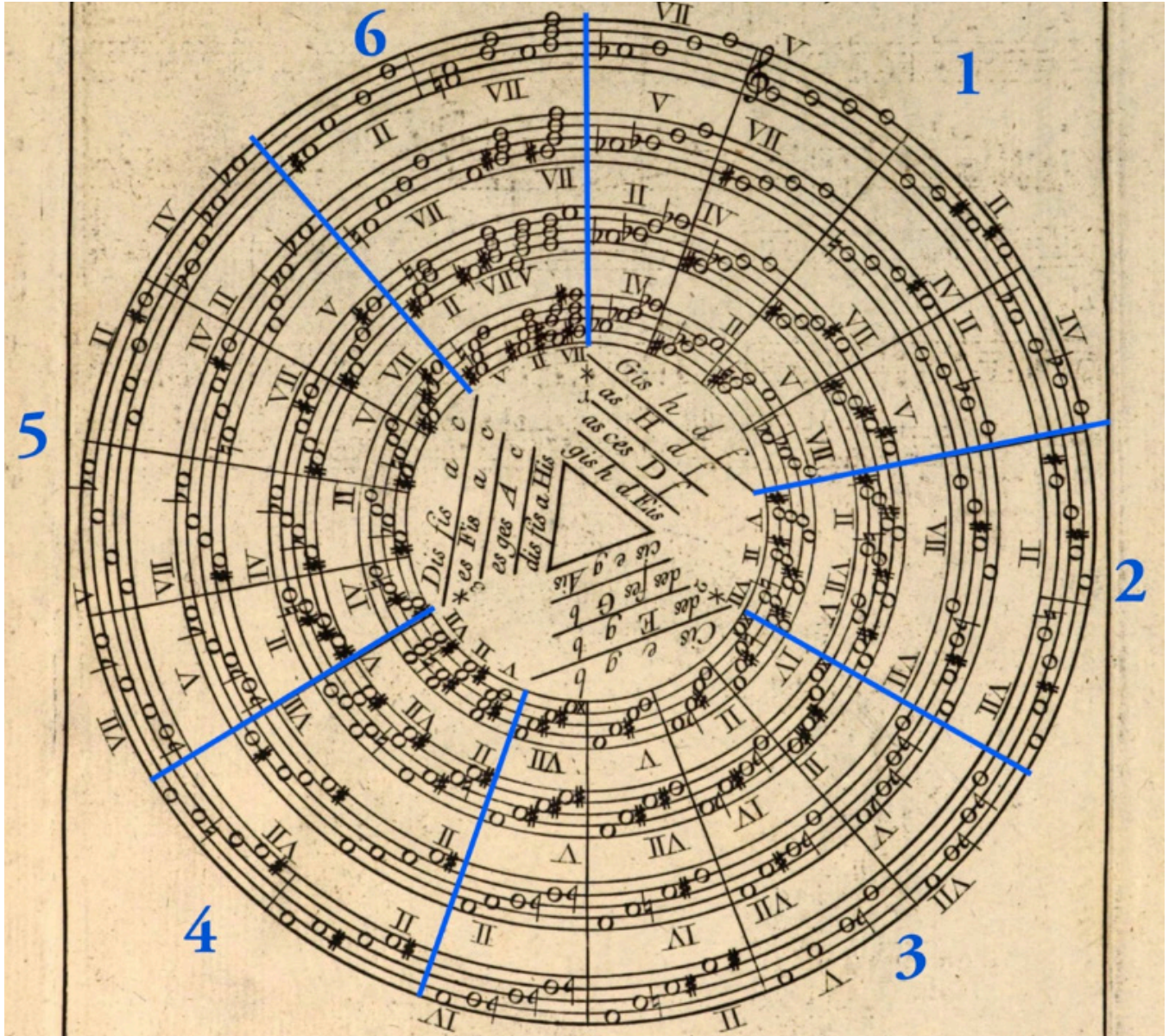
*Der siebente,  
vierte,  
zweite,  
in der weich. Leit.*



*Der Lage zu gefallen steht  
der Siebente der harten  
der zweite der harten | Leiter  
der zweite der weichen*

*bisweilen auch der fünfte Schlußfällmäsige in der Mitte.*

Example 83. Vogler's *Gründe*, Tab XXVI partitioned into 6 sectors



Example 84. Sector 1 (extracted from Tab XXVI)

The diagram shows a lute tablature for a sector of a circle. It consists of seven strings, each represented by a horizontal line. The strings are labeled with Roman numerals: VII (top), V, IV, III, II, I (bottom). Each string contains circles representing fret positions. The circles are arranged in a way that they form a sector of a circle. Below the diagram, there is a key signature and a triangular symbol.

*Gis h d f*  
\* *as H d f*  
*as ces D f*  
*gis h d Eis*

△

Example 85. Sector 1, Outermost Ring Transcription

Musical notation for Example 85 showing four measures of the outermost ring. The notes are: Measure 1: Bb, C, D, E; Measure 2: C, D, E, F; Measure 3: E, F, G# (with # above), A# (with # above); Measure 4: G, F, E, D. Roman numerals VII, V, II, and IV are placed above the respective measures.

Example 86. Sector 1, Outermost Ring, Harmonic Analysis

Musical notation for Example 86 showing harmonic analysis of the outermost ring. Roman numerals VII, V, II, and IV are placed above the measures. Below the staff, the following chord symbols are provided: C: vii<sup>o</sup>7, V<sup>7</sup>, F: Fr<sub>3</sub><sup>4</sup>/V, Ger<sub>5</sub><sup>6</sup>/V.

Example 87. Sector 1 Transcription and Resolution Targets

	Column 1	Column 2	Column 3	Column 4	Resolves to harmony with root:
Row 1 Outermost ring	VII	V	II	IV	C
Row 2 Second ring	V	VII	IV	II	D-sharp/ E-flat
Row 3 Third ring	II	IV	VII	V	F-sharp/ G-flat
Row 4 Fourth ring	IV	II	V	VII	A

**Example 88.** Beethoven's Inventoried Library of Musical Treatises

- **Knecht** *Vollständige Orgelschule* (1795)
- **C. P. E. Bach** *Versuch über die wahre Art das Clavier zu spielen* (1762)
- **Riepel** Books (5 of the following 7)
  - *Anfangsgründe zur Musikalischen Setzkunst* (1752)
  - *Grundregeln zur Tonordnung insgemein* (1755)
  - *Gründliche Erklärung der Tonordnung insbesondere, zugleich aber für die mehresten*
  - *Organisten insgemein* (1757)
  - *Erläuterung der betrüglichen Tonordnung* (1765)
  - *Unentbehrliche Anmerkungen zum Contrapunct* (1768)
  - *Baßschlüssel. das ist, Anleitung für Anfänger und Liebhaber der Setzkunst, die schöne Gedanken b  
und zu Papier bringen, aber nur klagen, daß sie keinen Baß recht dazu zu setzen wissen* (1786)
- **Kirnberger** works (6 Books)
- **Koch** *Handbuch bey dem Studium der Harmonie* (1811)
- **Vogler** Choral-System (1800)
- **Albrechtsberger** *Gründliche Anweisung zur Compositon* (1790)
- **Marpurg** *Abhandlung von der Fuge* (1753)
- **Türk** *Von den wichtigsten Pflichten eines Organisten* (Leipzig u. Halle 1787)



# Example 89. Sketch of Beethoven's Nexus of Influence

