

MTO 28.1 Examples: Martin, Tonal Ebb, Sunken II Chords

(Note: audio, video, and other interactive examples are only available online)
<https://mtosmt.org/issues/mto.22.28.1/mto.22.28.1.martin.html>

Example 1. Johann Sebastian Bach, Prelude in C Major from *Das Wohltemperierte Clavier*, Book I, mm. 1–4

A musical score for Johann Sebastian Bach's Prelude in C Major, Book I, mm. 1–4. The score consists of two staves: a treble staff and a bass staff. The key signature is C major. The time signature changes from common time to 2/2, then to 3/4, and back to common time. The bass line features sustained notes with eighth-note patterns above them. Below the score, harmonic analysis is provided: C: I (T), II (PD), V (D), and I (T).

Example 2. Ludwig van Beethoven, Piano Sonata in E Major, op. 14, no. 1, mvt. II, mm. 17–20. V goes to II in m. 19, contrary to the usual T-PD-D-T paradigm

A musical score for Ludwig van Beethoven's Piano Sonata in E Major, op. 14, no. 1, mvt. II, mm. 17–20. The score consists of two staves: a treble staff and a bass staff. The key signature is E major (three sharps). The time signature is 3/4. The bass line features sustained notes with eighth-note patterns above them. Below the score, harmonic analysis is provided: C: I (T), V (D), II (PD), and V (D).

Example 3. Bass line schemas for three situations where II may follow V

The contexts for these schemas correspond to the three different possible hierarchical relationships between the structural levels (lvl.) of II and V. V is subordinate to (<), equal to (=), or superordinate to (>) II at a, b, and c, respectively

II follows a *back-relating* V
(where $\text{II}_{\text{lvl.}} > \text{V}_{\text{lvl.}}$)

II—V undergoes *bifurcation*
(where $\text{II}_{\text{lvl.}} = \text{V}_{\text{lvl.}}$)

V prolonged by *apparent* II
i.e., an *upper fifth divider*
(where $\text{II}_{\text{lvl.}} < \text{V}_{\text{lvl.}}$)

a)

b)

c)

Example 4. Wolfgang Amadeus Mozart, Piano Sonata No. 17 in D Major K. 576, mvt. I, mm. 1–8

Allegro.

D: I ————— V
 div.
 HIC

II ————— 6

V I

PAC

Example 5. Robert Schumann, "Der Nussbaum," no. 2 from *Myrthen* op. 25, mm. 28–35.

Bifurcation of II^o6556—V⁷ in mm. 32–35

Example 6. Frédéric Chopin, Prelude in E Minor, op. 28, no. 4, mm. 1–12. Cadential dominant decorated by neighbor “II^o4334” chords in mm. 10–12

Largo.

5

9

IV⁶

V⁷ (II⁴) (II⁴)

cresc.

Example 7. Leaping passing tone and upper fifth divider. Reproduction of Examples 90 and 91 in Jonas, 1982

a)

b)

Example 8. Analysis of J. S. Bach, Prelude in C Minor, BWV 999 showing fifth divider Example 2 in Cadwallader and Gagné (2016, 110), based on Schenker (2005 [1923–24], 3–4)

Example 9. Robert Schumann, "Träumerei," no. 7 from *Kinderszenen* op. 15, mm. 19–24

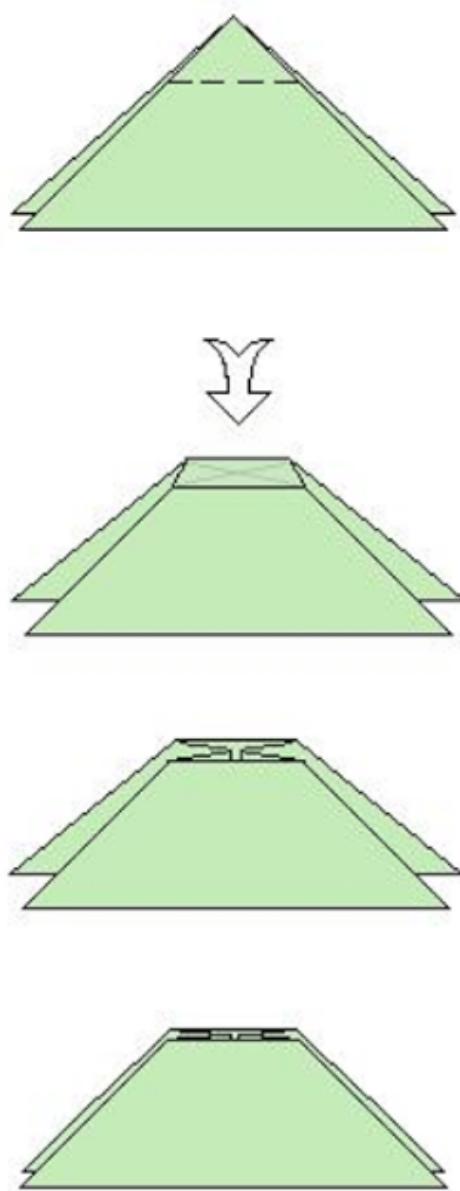
Example 10. Graphs of “Träumerei,” mm. 21–24

At level d), the asterisk (*) indicates the appearance of a *sunken II chord*

Example 11. The concept of unfolding illustrated with two napkins as a visual aid

The image shows a musical score and two diagrams of napkins. The musical score is for piano, page 43, measure 1. It features a treble clef, a key signature of one sharp, and a common time signature. The measure consists of a eighth note followed by a sixteenth note, a eighth note, a sixteenth note, and a eighth note. The first diagram shows a blue napkin with a diagonal fold from the top-left corner to the bottom-right corner, labeled 'e(c)' at the top-left and 'b(d)' at the bottom-right. The second diagram shows the napkin unfolded, with the fold line labeled 'c' at the bottom. The third diagram shows the napkin folded again, with the fold line labeled 'd' at the bottom-right. The label 'e.g.' is placed between the second and third diagrams.

Example 12. Origami sink fold applied to *water bomb base*



Example 13. Dominant sink fold yielding \downarrow II at c)

The diagram shows three cases (a, b, c) of dominant sink folds. Each case consists of a blue triangle above a musical staff and a harmonic progression below. In case (a), a downward arrow points from the triangle to the first note of the staff. In case (b), the triangle is a trapezoid, and the downward arrow points to the first note of the staff. In case (c), the triangle is a trapezoid, and the downward arrow points to the second note of the staff. The musical staff shows a bass clef, a key signature of C major, and a time signature of common time. The harmonic progression is C: I - V - I. In case (c), the progression is labeled I - V - (II) with a downward arrow.

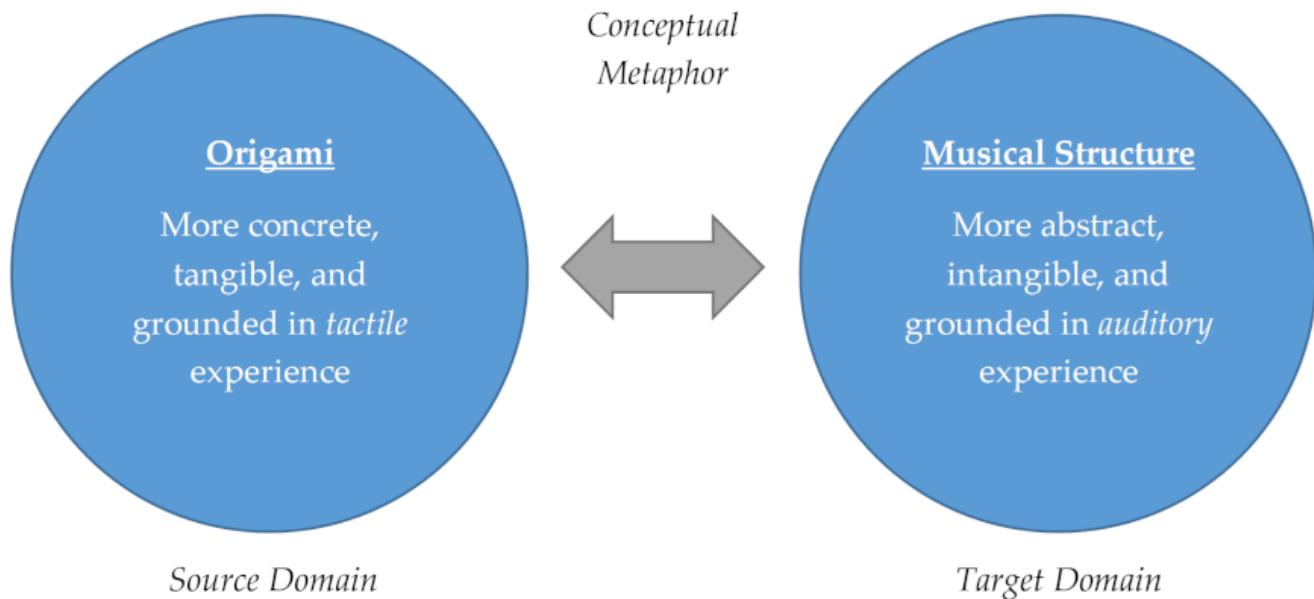
Example 14. Top: Schenker's deceptive cadence prototype from *Der freie Satz* (reproduction of Fig. 71, Ex. 1). At b), the rising succession V—VI is “led back by means of interpolated fifths into the direction of the descending fifth V—I” (70). Bottom: Fux-ian feigned closes (*inganno*) quoted in *Harmony*, (reproduction of Example 108 with added annotations). The second feigned close is suggestive of a dominant sink fold.

The top part shows a musical staff with a bass clef and a key signature of C major. The staff starts with a note labeled '1'. Below the staff, the harmonic progression is V—VI. At 'a', a curved arrow points upwards from the V note to the VI note. At 'b', a curved arrow points upwards from the V note to the I note, and a blue box highlights the VI note. The bottom part shows a musical staff with a bass clef and a key signature of C major. The staff starts with a note labeled '71'. Below the staff, the harmonic progression is V—VI. At 'a', a curved arrow points upwards from the V note to the VI note. At 'b', a curved arrow points upwards from the V note to the I note, and a blue box highlights the VI note. The staff ends with a note labeled '1'.

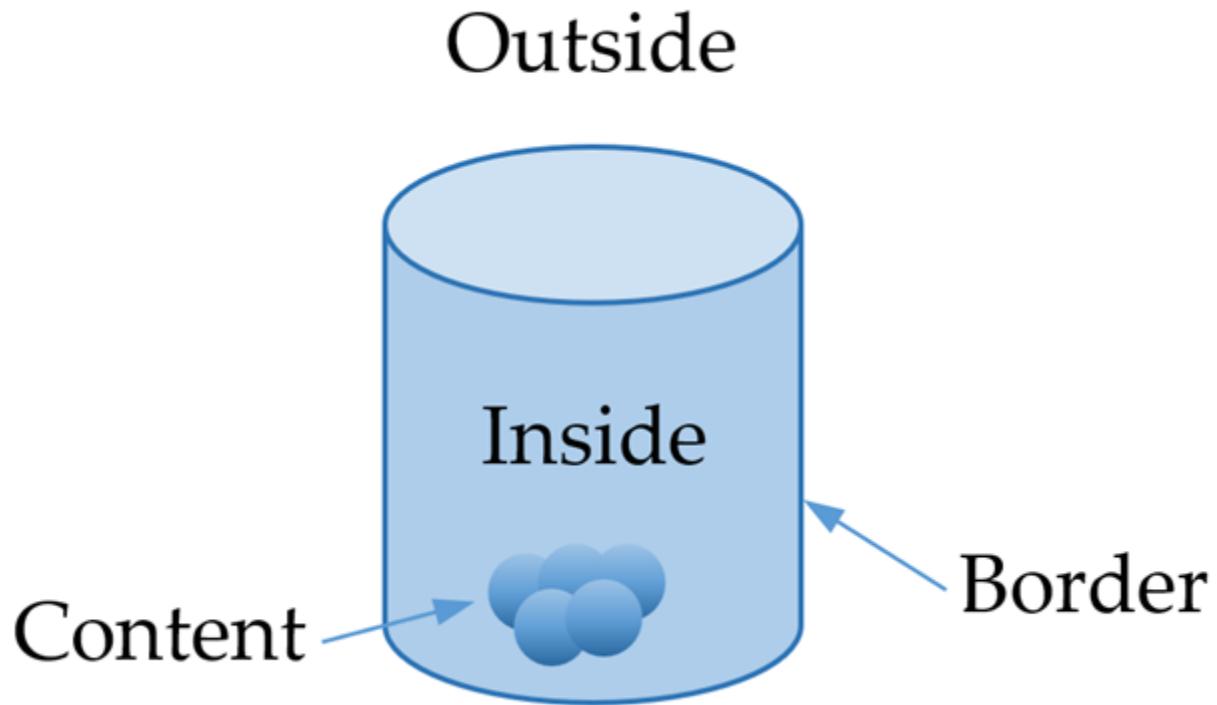
Example 108 (142):

The musical staff shows a bass clef and a key signature of C major. The staff starts with a note labeled '3'. Below the staff, the harmonic progression is 3—8. The staff continues with a note labeled '3'. Below the staff, the harmonic progression is 3—6!. The staff ends with a note labeled '10'. Below the staff, the harmonic progression is 10—5!. Annotations include: 'CLAUS.' under the first note, 'FORM.' under the second note, 'FICTA.' under the third note, '(= G: IV' under the fourth note, 'V⁴—I' under the fifth note, '(IV' under the sixth note, 'PAC' under the seventh note, 'V⁴—3' under the eighth note, 'IV⁶)' under the ninth note, 'DC' under the tenth note, 'FICTA.' under the eleventh note, 'V⁴—3' under the twelfth note, and 'II)' under the thirteenth note. A blue box highlights the section from the third note to the eleventh note.

Example 15. Cross-domain mapping



Example 16. CONTAINER schema



Example 17. "Der Nussbaum" text and translation
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German	English Translation
Es grünet ein Nußbaum vor dem Haus, Duftig, Luftig Breitet er blättrig die Aeste aus.	A walnut tree blossoms in front of the house, fragrantly and airily spreading out its leafy branches.
Viel liebliche Blüthen stehen d'ran; Linde Winde Kommen, sie herzlich zu umfahn.	Many lovely blossoms does it bear; gentle winds come to caress them.
Es flüstern je zwei zu zwei gepaart, Neigend, Beugend Zierlich zum Kusse die Häuptchen zart.	They whisper, paired two by two, gracefully inclining their tender heads to kiss.
Sie flüstern von einem Mägglein, das Dächte die Nächte, und Tagelang, wüsste, ach! selber nicht was.	They whisper of a maiden who thinks day and night long of... but alas! she does not herself know!
Sie flüstern—wer mag versteh'n so gar Leise Weis'?— Flüstern von Bräut'gam und nächstem Jahr.	They whisper—who can understand such a soft song!— they whisper of a bridegroom and of the coming year.
Das Mägglein horchet, es rauscht im Baum; Sehnend, Wähnend Sinkt es lächelnd in Schlaf und Traum.	The maiden listens, the tree rustles; yearning, hoping, she sinks smiling into sleep and dream.

Example 18. Score to Schumann, "Der Nussbaum," no. 3 from *Myrthen* op. 25

Nº 3. Prelude

Allegretto.

A1

Score for the first section (A1) of the Prelude. The music is in 6/8 time, key of G major. The vocal line begins with "Es grü - net ein Nuss - baum vor - dem Haus," with a dynamic of *p*. The piano accompaniment consists of eighth-note chords in the bass and sixteenth-note patterns in the treble. The vocal line continues with "duf - tig, luf - tig brei - - tet er" and "blätt - rig die Ae - ste aus." The piano part features sustained notes and eighth-note chords. The section ends with a dynamic of *p*.

Continuation of the musical score for section A1. The vocal line continues with "blätt - rig die Ae - ste aus." The piano accompaniment consists of eighth-note chords in the bass and sixteenth-note patterns in the treble. The vocal line concludes with "Viel."

Continuation of the musical score for section A1. The vocal line continues with "Viel." The piano accompaniment consists of eighth-note chords in the bass and sixteenth-note patterns in the treble.

A2

Continuation of the musical score for section A2. The vocal line begins with "lieb - li - che Blü - - then ste - - hen dran;" The piano accompaniment consists of eighth-note chords in the bass and sixteenth-note patterns in the treble.

17

lin - de Win - de kom - men, sie herz - lich zu um - fahn.

A₃

21

Es flü - stern je zwei zu zwei gepaart,

25

nei - gend, beu - gend zier - lich zum

B

29

Kus - se die Häupt - chen zart. p
Sie

riten.

33

flü - stern von ei - nem Mägd - lein, das däch - te die Näch - te und

37

Ta - - - - - ge lang, ritard. - - - - - wüss - te, acht sel - ber nicht was.

A4

41

Sie flü - stern, sie flü - stern,—

45

wer mag verstehn so gar lei - se Weis?

49

flü - stern vom Bräut' - gam und

ritard.

53

Coda

58

A musical score page for piano and voice. The vocal line continues with lyrics 'hor - - chet, es rauscht im Baum; seh - nend,wäh - nend' over a piano accompaniment of eighth-note chords. The piano part features a repeating eighth-note pattern in the bass and a treble line with eighth-note chords. The vocal line is in soprano C-clef, and the piano part is in bass F-clef. The page number 58 is at the top left.

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Example 19. Formal outline for Schumann, “Der Nussbaum,” no. 3 from *Myrthen* op. 25

Section:	Prelude	A ₁	A ₂	A ₃	B	A ₄	Coda
Measures:	1–2	3–12	13–22	23–30	31–42	43–56	57–66
Key Area(s):	G	G → D	G → D	G → D	a → G: V	G	G
Stanza:	1	2	3	4	5	6	
Poetic Content:	Tree; branches	Blossoms	Flower-heads	Maiden	Bridegroom	Dreams	

Example 20. Schumann, “Der Nussbaum” no. 3 from *Myrthen* op. 25. Clarification of mi/3³ as accented passing tone in mm. 1–2, mm. 3–7, and similar passages

The image shows two measures of a musical score for piano. Measure (a) starts with a forte dynamic and a 3/4 time signature. The piano part consists of a bass line in G major (I) and a treble line in G major (IV). The treble line has a melodic line with a passing tone (mi/3³) that is accented. Measure (b) continues with the same harmonic progression (I to IV) and includes a dynamic marking of forte.

Harmonic Analysis:

Measure (a): G: I IV V₆⁸ = 3 I

Measure (b): I IV V₆⁸ = 3 I

Example 21. Foreground graph of the A sections

A₁₋₃

3	4	5	6	7	8	9	10
13	14	15	16	17	18	19	20
23	24	25	26	27	28	29	30

3 **2** ||

fgd.

(I) ————— 6 IV V₆—₅ I ————— II₃⁶ V 6 I

G: I ————— II₃⁶—₅ V

Example 22. Middleground graph showing interruption

nature
(objective)

A

1-29

maiden
(subjective)

B

30 31-36 37 38

39 40

41

42

! ||

mgd.

A'

3 **2** ————— ! ————— || **3**

4th-prg.

(= II)

G: I II₃ V₈—₇ 6—₅ I

Example 23. A generative approach to the B section

a)

b)

c)

d)

3rd-prg.

∞

(= a: I IV⁶ VII III⁶ VI II⁶ V I⁶)

a: I _____ 6 II⁶ 7 V I

Example 24. Moment-to-moment graph of the B section

a)

31 32 33 34

a: $\frac{3}{2}$ a: $\frac{3}{2}$

$\left\{ \begin{array}{l} \text{a: I} \quad \text{II}^6 \\ \text{V} \quad (\text{div.}) \end{array} \right.$ $\left\{ \begin{array}{l} \text{I} \quad \text{II}^6 \\ \text{[V?]} \end{array} \right.$

b)

31 33 35 36 37 38

a: $\frac{3}{2}$ a: $\frac{3}{2}$ a: $\frac{3}{2}$ a: $\frac{3}{2}$ a: $\frac{3}{2}$ a: $\frac{3}{2}$

no, seq.! *arp.*

c)

31 36 39 40

a: $\frac{3}{2}$ a: $\frac{3}{2}$ a: $\frac{3}{2}$ a: $\frac{3}{2}$

end of phrase?

no, bifurcation!

HC \Rightarrow IAC

31 **36** **39** **40**

a: I a: $\frac{6}{4}$ a: $\frac{6}{4}$ a: $\frac{3}{2}$

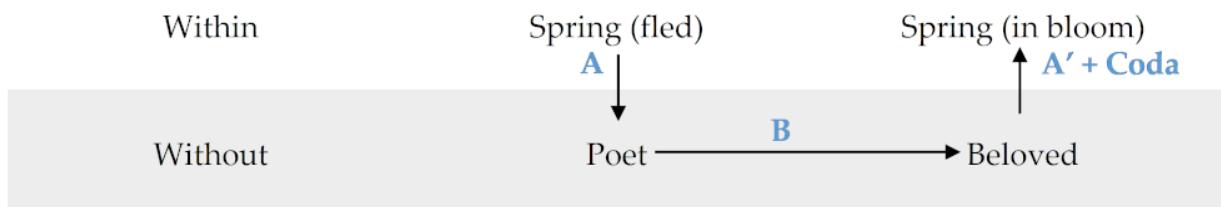
$\left\{ \begin{array}{l} \text{I} \\ \text{II}^6 \quad 7 \\ \text{V} \quad (\text{div.}) \end{array} \right.$

$\left\{ \begin{array}{l} \text{I} \\ \text{II}^6 \quad 7 \\ \text{V} \quad \text{I} \end{array} \right.$

Example 25. “Ich hab’ in mich gesogen” text and translation
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German	English Translation
Ich hab' in mich gesogen Den Frühling treu und lieb, Daß er, der Welt entflogen, Hier in der Brust mir blieb.	I have drunk in the Spring true and dear, so that, having fled the earth, it will remain here in my breast.
Hier sind die blauen Lüfte, Hier sind die grünen Aun, Die Blumen hier, die Dünfte, Der blühnde Rosenzaun.	Here are the blue skies, here are the green meadows, the flowers here, the breezes, the blooming rose fence.
Und hier am Busen lehnet Mit süßem Liebesach, Die Liebste, die sich sehnet Den Frühlingswonnen nach.	And here on my bosom leans with a sweet love sigh, my sweetheart, who longs for the bliss of spring.
Sie lehnt sich an, zu lauschen, Und hört in stiller Lust Die Frühlingsströme rauschen In ihres Dichters Brust.	She leans on me to listen and hears with quiet joy the murmuring of spring streams in her poet's breast.
Da quellen auf die Lieder Und strömen über sie Den vollen Frühling nieder, Den mir der Gott verlieh.	There spring forth songs and they stream over her, full of the spring that God has conferred on me.
Und wie sie, davon trunken, Umblicket rings im Raum, Blüht auch von ihren Funken Die Welt, ein Frühlingstraum.	And as she, intoxicated by it all, gazes around in space, the world blooms also from her sparks: a dream of Spring.

Example 26. Poetic progression in Rückert, "Ich hab' in mich gesogen"



Example 27. Score to Schumann, "Ich hab' in mich gesogen," no. 7 from *Liebesfrühling* op. 37

Einfach innig. **Prelude**

The musical score consists of four systems of music. The first system (measures 1-3) is a piano prelude in common time, C major, with dynamic *p*. The vocal part begins in measure 4. The vocal line is labeled 'A' in a blue box. The piano accompaniment is labeled 'F: HC' (Functional Harmonic Change). The lyrics are: "Ich hab' in mich ge-so-gen den Frühling treu und lieb, dass er der Welt ent-flo-gen". The second system (measures 4-7) continues with the vocal line 'A' and the piano accompaniment 'F: PAC' (Pacification). The lyrics are: "hier in der Brust mir blieb. Hier sind die blau-en Lüf-te, hier sind die grünen Au-n, die". The third system (measures 8-11) shows a harmonic change to C major, labeled 'C: PAC'. The piano accompaniment is labeled 'mf'. The lyrics are: "Blu-men hier, die Düf-te, der blühn-de Ro-sen-zaun. Und hier am Bu-sen leh-net mit". The fourth system (measures 12-15) concludes with the piano accompaniment 'C: PAC' and a final cadence 'V-'.

F: HC

A

F: PAC F: HC

F: PAC C: PAC

B

C: PAC V-

14 *ritard.*

süßem Lichesach die Liebste die sich sehnet den Frühlingswonnen nach. Sie lehnt sich an zu lauschen, und

ritard.

p

g: PAC

A'

18 *ritard.*

hört in stiller Lust die Frühlingsströme rauschen in ihres Dichters Brust. Da quellen auf die Lieder und

ritard.

f

-V^{II}

22 *f*

strömen über sie den vollsten Frühling nie der den mir der Gott verlich. Und wie sie davon trunken

F: HC

Coda

F: PAC

26 *ritard.*

um blicket rings im Raum, blüht auch von ihren Funken die Welt ein Frühlingsstraum.

ritard.

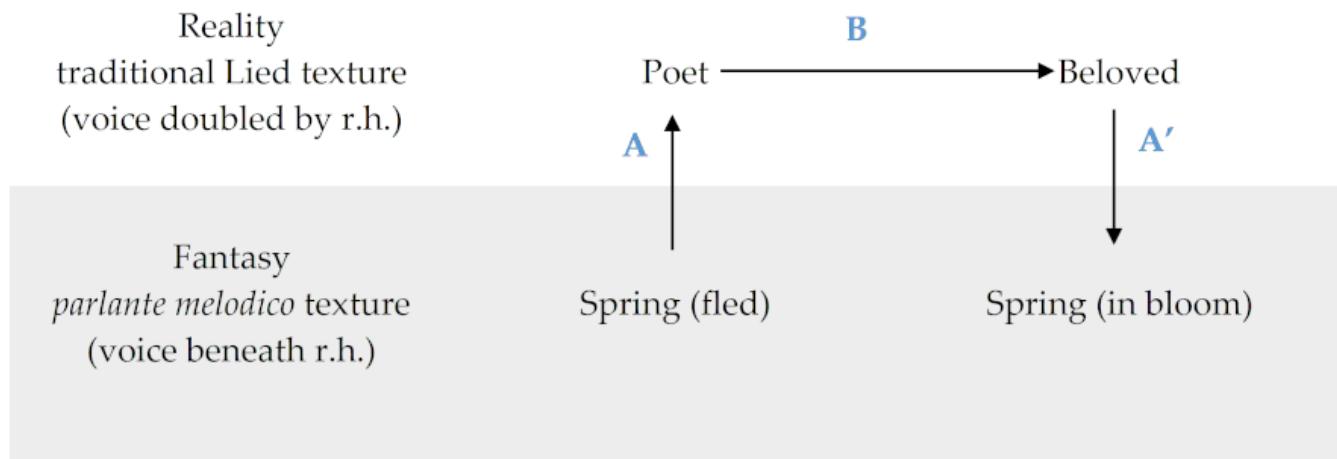
p

(F: PAC)

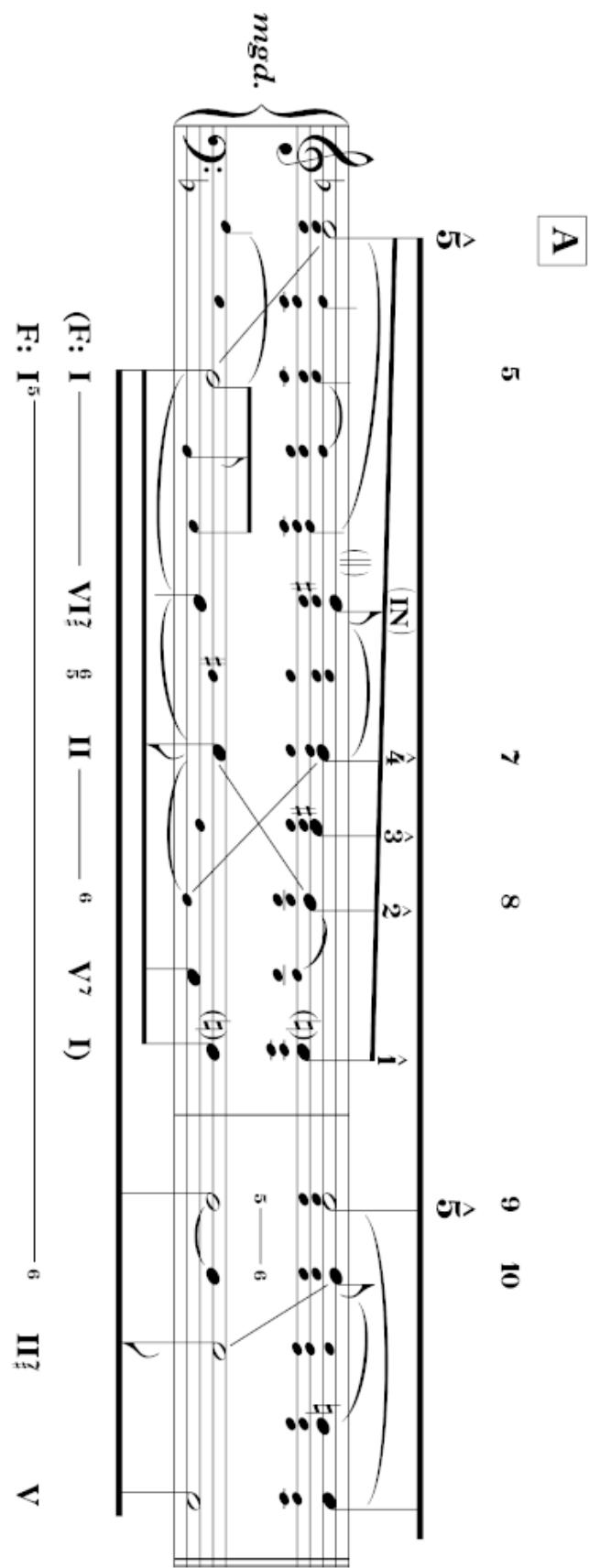
Example 28. Formal outline for Schumann, "Ich hab' in mich gesogen," no. 5
from *Liebesfrühling* op. 37

	Prelude	A	B	A'	Coda
Measures:	1–4	5–8	9–10	13–16	17–20
			(=11–12)		
Cadence:	F: PAC	F: PAC	C: PAC	g: PAC	F: HC
Stanza:		1	2	3	4
				5	6

Example 29. Schumann, "Ich hab' in mich gesogen," textural map



Example 30. Schumann, "Ich hab' in mich gesogen," middleground graph of A section



Example 31. "Ich hab' in mich gesogen," expansion of first branch into B section

Music score for "Ich hab' in mich gesogen," showing the expansion of the first branch into the B section.

The score consists of two systems of music, labeled A and B, each with two staves. The top staff of each system is in treble clef, and the bottom staff is in bass clef.

System A:

- Top Staff (Treble):** Contains a single melodic line with eighth and sixteenth note patterns. Measure 5 is labeled 'a'.
- Bottom Staff (Bass):** Contains harmonic bass notes. Measures 5, 6, and 7 are labeled 'a'.
- System B:**

 - Top Staff (Treble):** Contains a melodic line with eighth and sixteenth note patterns. Measure 5 is labeled 'b'.
 - Bottom Staff (Bass):** Contains harmonic bass notes. Measures 5, 6, and 7 are labeled 'b'.

Harmonic Progression:

- System A:**
 - Measure 5: F: I₅ — 6
 - Measure 6: II₇
 - Measure 7: V₈ — 7 — 6 — 5
 - Measure 8: (↓ II)
- System B:**
 - Measure 5: F: I₅ — 6
 - Measure 6: II₇
 - Measure 7: V₈
 - Measure 8: A (V₆ [V₆⁵], I₁, II₁, III₁, IV₁, V₁, VI₁, VII₁)

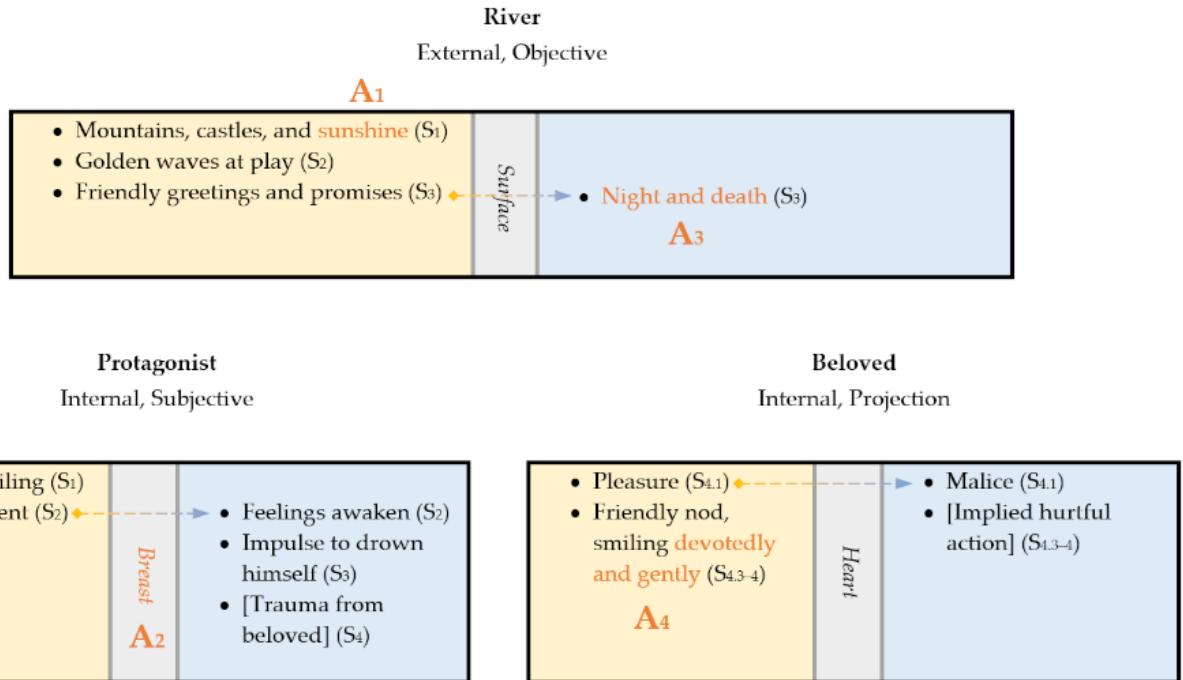
Example 32. Foreground sketch of B section

Example 33. “Berg’ und Burgen schau’n herunter” text and translation
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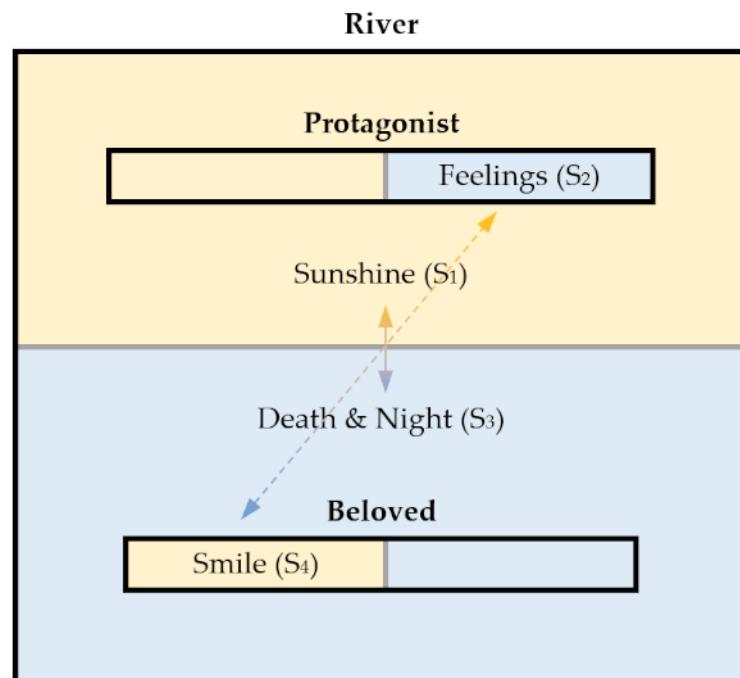
Text	English Translation
Berg und Burgen schaun herunter in den spiegelhellen Rhein, und mein Schiffchen segelt munter, rings umglänzt von Sonnenschein.	Mountains and castles gaze down into the mirror-bright Rhine, and my little boat sails merrily, the sunshine glistening around it.
Ruhig seh’ ich zu dem Spiele goldner Wellen, kraus bewegt; still erwachen die Gefühle, die ich tief im Busen heg’t.	Calmly I watch the play of golden, ruffled waves surging; silently feelings awaken in me that I have kept deep in my heart.
Freundlich grüßend und verheißend lockt hinab des Stromes Pracht; doch ich kenn’ ihn, oben gleißend, birgt sein Innres Tod und Nacht.	With friendly greetings and promises, the river’s splendor beckons; but I know it—gleaming above it conceals within itself Death and Night.
Oben Lust, im Busen Tücken, Strom, du bist der Liebsten Bild! Die kann auch so freundlich nicken, lächelt auch so fromm und mild.	Above, pleasure; at heart, malice; O river, you are the very image of my beloved! She can nod with just as much friendliness, also smiling so devotedly and gently.

Example 34. "Berg und Burgen" triple central image

The river, protagonist, and beloved each partake in a CONTAINER schema. **Yellow** indicates that which lies *without*; **blue**, *within*. Boundaries appear **grey**; the **two-toned** arrows connote *concealment*. The words highlighted in **amber** are paired with \Downarrow II in Schumann's strophic setting.



Example 35. "Berg und Burgen" stanzaic pairings and chiastic structure



Example 36. Schumann, "Berg' und Burgen" score

Prelude
Ruhig, nicht schnell.

A1-3
Part 1

Part 2

7 *ritard.*
schaun - her - un - ter in den spie - gel - hel - len Rhein, und mein
zu dem Spie - le gold' - ner Wel - len, kraus - be - wegkt, still er -
und ver - hei - ssend lockt hin - ab des Stro - mes Pracht; doch ich

ritard.

E: PAC

14
Schiff - chen se - gelt mun - ter, rings um - glänzt vom Son - nen - schein,
wa - chen die Ge - fühl - le, die ich tief im Bu - sen hegt',
kenn' ihn, o - ben glei - ssend bringt sein Inn' - res Tod - und Nacht,

b: PAC

21 *rit.* **Postlude**
Postlude lyrics: rings um - glänzt vom Son - nen - schein:
die ich tief im Bu - sen hegt'.
bringt sein Inn' - res Tod - und Nacht.

A: PAC **(A: PAC)**

A4 | simile

29

A musical score page for piano and voice. The vocal line continues from the previous page, with lyrics in German: "ben Lust, im Bu - sen Tü - eken, Strom _____ du". The piano accompaniment is provided on the lower staves. The page number 29 is at the top left, and the measure numbers 40 and 41 are indicated above the vocal line.

34

A musical score for piano and voice. The vocal part is in G major, 2/4 time. The lyrics are: "bist der Lieb - - sten Bild! Die kann auch so". The piano part provides harmonic support, with a ritardando (rit.) indicated in the vocal line.

39

A musical score page featuring a vocal line and a piano accompaniment. The vocal line is in German, with lyrics including 'freund lich ni cken, lä chelt auch so fromm und'. The piano part consists of a bass line with eighth-note chords. The score is in 2/4 time, with a key signature of two sharps. The vocal line continues from the previous page, with the piano accompaniment providing harmonic support.

44

49

Example 37. Foreground graph of Part 1

A₁₋₄

Part 1

5 6 7 8 9 10 11

fgd.

3 **DN** **2**

(=E: II⁶ V⁷ I)

A: I₃⁵ **6** **5** **II₃⁷** **V**

Example 38. This sketch outlines a textbook approach to “Berg’ und Burgen.”

A₁₋₄

Part 1 **Part 2**

1 10 11... 17 18-20 21 22 23 24

3 **2** **1**

mgd.

10 5 6

DN

A: I — (V) — 6 II V₅⁶ I
div.

A: I — V⁷ I

Example 39. Expansion of V in Part 2

A₁₋₄

Part 1

1-10 11

Part 2

12... 20 21 22 23 24

(↓II [V⁶₅] “I”)

A: I II?

V 8—9—8—7 **I**

Example 40. Expansion of $\Downarrow II$ within V in Part 2; complete foreground graph of Part 2

Example 41. Expected cadence in A major conceals actual cadence in B minor

Part 1								⋮	Part 2							⋮
actual measure	5		9		12				13		17		20			
measure of the form	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
rhyme scheme					<i>a</i>			<i>b</i>					<i>a</i>		<i>b</i>	
key					E: <u>I⁶ V⁷ I</u>				expectation A: <u>I⁶ IV</u> <u>V⁶ = 5 I</u>				A: <u>PAC</u>			
					V: <u>PAC</u>				sp				A: <u>PAC</u>			

Example 42. Hypothetical re-composition of mm. 13–20 leading to A: PAC in m. 20

13 14 15 16 17 18 19 20

und mein Schiff - chen se - gelt mun - ter, rings um-glänzt vom Son - nen- schein.

A: (IN) V $\frac{4}{3}$ (P) V $\frac{2}{3}$ I $\frac{6}{4}$ IV V $\frac{8}{4}$ I