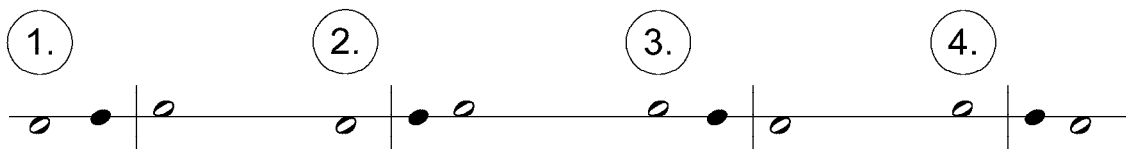


## UNIT IX: NONHARMONIC TONES

If harmonic theory considers music to be made essentially from chords, then the many non-chord tones that occur in any music will require special discussion. The problem of nonharmonic tones (NHTs) – that is, the problem of specifying precisely the conditions under which a given non-chord tone is musically acceptable – is remarkably complex; first, because there are a great many musical variables to consider (pitch context, metric placement, activity in other parts, underlying harmony, etc.); and second, because the occurrence of particular forms of NHTs is extremely style-sensitive: usages that are commonplace in Mozart are unknown in Bach, and vice-versa. Theorists have traditionally used a number of incomplete, overlapping, and inconsistent classification schemes for NHTs. What we shall require is to consider systematically all the logically-possible configurations for a single NHT – that is, one dissonant pitch (re-articulated or not) between two consonant ones – with respect to the metric and melodic context, noting as we go which varieties are common, rare, and unknown in the Bach Chorales, and in Bach’s figural counterpoint.

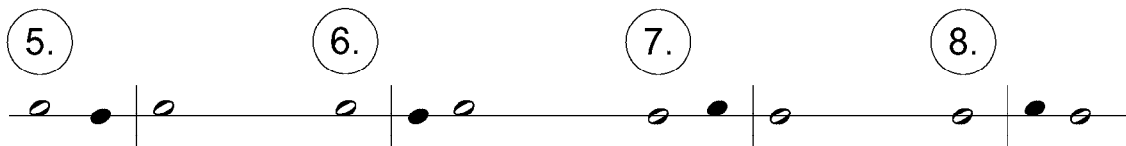
The Passing Tone (PT) is defined as a NHT approached by conjunct motion, and left by conjunct motion in the opposite direction. The possibilities can be diagrammed:



where ● is the dissonant pitch, and the vertical line is a “barline”: the pitch coming after it is relatively accented, the one before it relatively weak. Thus type {1} is a weak PT, and so is {3}; types {2} and {4} are accented, or strong, PTs.

Most typically PTs are weak-beat dissonances, passing up or down either within one harmony, or between two different chords: [EX 1](#). Strong PTs, or accented PTs, are, however, equally acceptable – [EX 2](#) – and especially descending in the bass: [EX 3](#). What we are calling accented PTs are often called “appoggiaturas”, especially when they are short notes in the melody: [EX 4](#). This is closer to the historical meaning of the term. Chromatic PTs are not so common in the Chorales as they are in the Classic style ([EX 5](#)); when chromatic motion occurs in the Chorales it is usually fully harmonized: [EX 6](#). The temptation to write a PT between 7° and 5° at V-I cadences is usually better resisted, though Bach does it once or twice: [EX 7](#).

The Neighbor Tone (NT) is also called an “auxiliary”; it is defined as the pitch-pattern

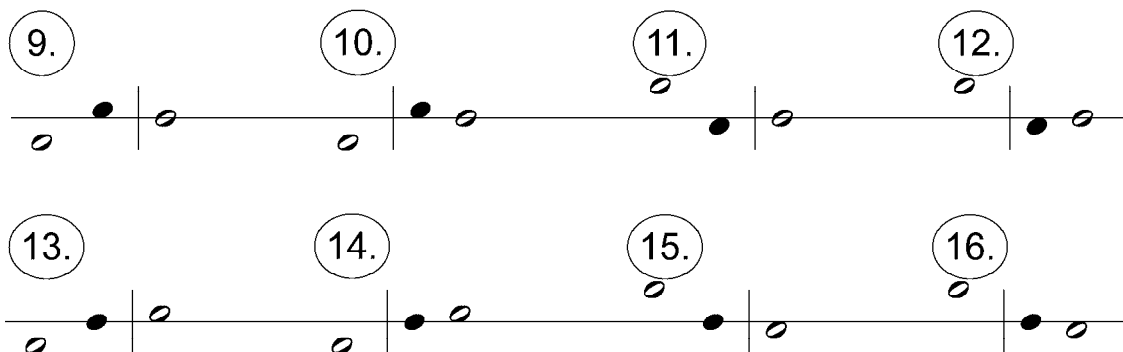


NTs too are typically weak-beat dissonances (types {5} and {7}), and in the Chorales are much more common in the lower NT form: [EX 8](#). But upper NTs are not at all uncommon; they usually proceed by ½-step: [EX 9](#). Strong-beat NTs are less common, but not rare, in the Chorales: [EXX 10-11](#). Notice that, strictly speaking, the NT in [EX 11](#) is strong with respect to its resolution-note – the crucial aspect – but weak with respect to the preceding note.

It is interesting how characteristic the upbeat NT is of the Baroque style – in the opening movement of the third Brandenburg Concerto, for example – and how rare it is in Classic music.

### Appoggiaturas (AP)

as discussed here, are defined as unprepared dissonances – i.e., those that are approached disjunctly:



(I repeat, in many texts, any strong-beat dissonance resolving by step is called an AP, and this is closer to the historical use of the term.)

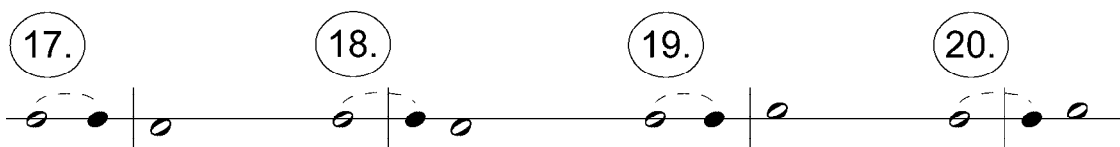
The AP is an unusual dissonance in the Chorales, but one can find examples of all the types that reverse direction; i.e., {9} through {12}: [EXX 12-15](#). Type {11} often arises from the ornamented resolution of a suspension: [EXX 16-17](#).

Of the other types, {13-16}, the only instances I can find in the Chorales appear in [EXX 18-19](#); the latter involves a dominant 7<sup>th</sup> and so is not an unequivocal case. All the AP types above are quite common in Bach's figural music, where the melodic style allows him to suggest several lines at once: [EXX 94-100](#). And the chromatic appoggiatura, especially, is an essential mannerism of the Viennese High-Classic style: [EX 20](#).

The NHTs so far – PT, NT, AP – have all been defined in terms of two pitch-changes. The two remaining NHTs involve just one change of pitch: either a note at first consonant is held over into a chord with which it is dissonant (the suspension, SP), or a note at first dissonant is held over into a chord where it is consonant (the anticipation, AN).

### The Suspension (SP)

may, in abstract, be diagrammed like so:



The ties between notes of the same pitch are optional; the pitch is often rearticulated. Type {18} is by far the most common kind, the “true” suspension: the dissonance occurs on a strong beat, resolving downward by step on a weaker beat: [EXX 21-22](#). In triple meter, the SP is often found on the second

beat, resolving on the third: [EX 25](#) – but the principle is preserved, that the resolution of the SP occurs on a beat no stronger than that on which the dissonance occurs. Notice that in the occasional cadential  $I\frac{6}{4}$  which is introduced on a weak beat, the 4<sup>th</sup>, considered as a SP, does not violate this rule; it generally waits for another weak beat to resolve: [EX 26](#).

The upward-resolving SP – type {20} – is much rarer in the Chorales, and is almost always resolved by  $\frac{1}{2}$ -step: [EX 27](#) shows an ornamented version of such a SP. Most other examples of this pattern are in fact ornamented versions of downward resolutions: [EX 28-29](#). The “preparation” – the pitch before the dissonance – is generally at least as long as the dissonance itself. Like most dissonances, the SP sounds best when the note of resolution is not doubled elsewhere in the chord.

SPs are often named according to their Bc figuring: a “9-8 suspension”, a “4-3”, a “6-5”, or (in the bass), a “2-3”:

SP's are NOT an acceptable way to avoid parallel fifths and octaves:

“Weak-beat” suspensions, those of types {17} and {19} above, are extremely rare, but they do occur in complicated passages: [EX 30](#). Otherwise, though, they sound a bit odd: [EXX 31-32](#). (The latter example is a bit ambiguous; it depends on which soprano D is the “real resolution”.) Other examples of the weak SP are all 7<sup>th</sup>s, especially minor sevenths, which is a way of demonstrating that they have a status in this music somewhere between that of full chord-tone and a genuine dissonance: [EXX 33, 34, 79](#). The weak SP also apparently does not occur in Bach’s more elaborate counterpoint except, again, as a 7<sup>th</sup>: [EX 35](#); or in a texture saturated with suspensions: [EX 107](#).

### The Anticipation (AN)

is a tone at first dissonant, which sustains while the chord changes, becoming consonant in the new harmony. The metric/contour possibilities are:

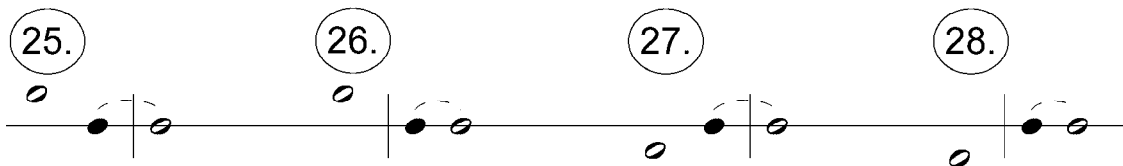
Once again the tie is optional, in fact rare: the dissonant pitch is usually re-articulated with the downbeat.

The anticipation is characteristically a weak-beat dissonance, as in types {21} and {23}, generally occurring at the cadence: [EX 36-37](#); but not necessarily: [EXX 38-39](#). The parallel fifths that arise at a cadence from the conjunction of an AN and a PT are permissible, as in [EX 36](#).

In the Chorale harmonizations, Bach has a characteristic usage which could be considered (among other things) a “strong-beat” anticipation, corresponding to {22} above: [EX 40](#). (This seems not to occur in the configuration of {24}, but I don’t know why not: [EX 45](#).) These “strong ANs” are usually produced by the coincidence of the 6<sup>th</sup> and 5<sup>th</sup> above the bass; when the 5<sup>th</sup> resolves downward, the bass must move as well, or a dissonant 4<sup>th</sup> will result. This “downbeat anticipation” apparently does not occur in Bach’s more elaborate music.

### Complications

It is possible, of course, to approach an AN by leap, rather than by step:

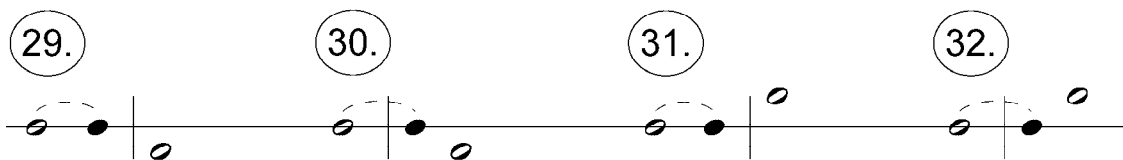


Oddly enough, in the Chorales the only type that so occurs is the “downbeat” type {28}, [EX 41](#). Notice in these examples there occurs on the downbeat not a  $\frac{6}{4}$  figuration but a  $\frac{4}{3}$ , and since the 7<sup>th</sup> in the upper voices is minor, the downbeat sonorities have plausible alternative descriptions as 7<sup>th</sup>-chords:  $ii\frac{4}{3}$  and  $iv^7$ , respectively. Otherwise, ANs approached disjunctly do not seem to occur in the Chorales; but in figural music they do: [EX 105](#). (I haven’t found an example of {25} yet, and the downbeat types {26} and {28}, like {22} and {24}, don’t seem to occur in Bach’s contrapuntal music.)

### Unresolved dissonances

Notice that the AN logically can’t go “unresolved”; that is, if the dissonant note is succeeded by a change of pitch, the figure has another description. All the other NHTs, however, could logically be left by skip, and then “resolved later”, or not at all. With certain exceptions, this is rare in the Chorales, but in Bach’s contrapuntal music, the possibilities for remote resolution make such figures more plausible.

Remote or ornamental resolution of the SP is familiar in the Chorales ([EXX 42, 43, 47, 27](#)); in most cases the voice leaps down before arriving at the resolution-pitch. This, though, is only one ({30}) of the four possibilities:



This is the only kind that occurs in the Chorales; ornamental resolutions that first leap up ({32}) can be

found in figurative music: [EX 111](#). Naturally, “weak-beat” suspensions that are remotely-resolved {29} and {31} are even more difficult to find than normally-resolved ones, in figurative music. [EX 44](#) shows a SP genuinely unresolved.

“Unresolved appoggiaturas” (in our system of nomenclature) are equivalent to “free nonharmonic tones” – NHTs approached and left disjunctly:

Examples 33-40 illustrate various nonharmonic tones (NHTs) on a five-line staff. Each example is numbered in a circle above the staff. Examples 33, 37, 38, 39, and 40 show a note on the staff with a disjunctly approached note above or below it. Examples 34, 35, and 40 show a note on the staff with a disjunctly approached note above it. Example 36 shows a note on the staff with a disjunctly approached note below it.

These are of course virtually unknown in the Chorales; the only examples I’ve found are shown in [EXX 46-47](#). Like these instances, most “free tones” in figurative music are either remotely resolved, or anticipations of the next harmony: the examples I’ve been able to find are given in [EXX 112-119](#).

An “unresolved NT” would be one approached conjunctly, and left by skip in the other direction:

Examples 41-44 illustrate unresolved nonharmonic tones (NHTs) on a five-line staff. Each example is numbered in a circle above the staff. Examples 41 and 43 show a note on the staff with a conjunctly approached note above it, which is then left disjunctly. Examples 42 and 44 show a note on the staff with a conjunctly approached note below it, which is then left disjunctly.

The weak-beat version of this NHT ({41} and {43}) is common in 18<sup>th</sup>-century music, and is known as the *echapée*. The upwards version is the most ({41}) is the most frequent, though only in the melody-line: [EX 48](#). There is also at least one example of the downward *echapée*: [EX 49](#). *Echapées* almost always anticipate the harmony of the next chord.

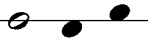
The strong *echapées* (types {42} and {44}) aren’t found in the Chorales, but all four possibilities of “incomplete” or “unresolved NT” can be found in figurative music: [EXX 120-123](#).

Finally, “incomplete” or unresolved PT’s,

Examples 45-48 illustrate incomplete or unresolved phrase tones (PTs) on a five-line staff. Each example is numbered in a circle above the staff. Examples 45, 46, 47, and 48 show a note on the staff with a disjunctly approached note above or below it, which is then left disjunctly.

are quite rare in the Chorales; the only one I can find is an example of type {48}, [EX 50](#) – and it’s a 7<sup>th</sup>. Similarly for figurative music: the remotely-resolved PTs I find are strong-beat types: [EXX 125, 127](#). Type

{45}, however, is found in sixteenth-century counterpoint as the classical “cambiata” figure: [EX 51](#).  
Multiple NHTs: Successively

Consecutive dissonant passing tones will occur when they proceed from the root of a chord down to its 5<sup>th</sup>, or from the 5<sup>th</sup> up to the root; or when the harmony changes while the line is moving: [EXX 52-53](#). Also common, especially in the Classic style, is the combination of upper and lower NTs, with or without the intervening consonant pitch: [EXX 54-59](#). These are often called “changing notes”, especially the pattern . Some of the configurations we have labeled “unresolved” have been “changing-note” figures: [EX 43](#), [EX 50](#).

### Multiple NHT's: Simultaneously

Usually, when NHTs occur in several voices at once in the Chorales, they form within themselves parallel 3<sup>rd</sup>s or 6<sup>ths</sup>; or if three voices are moving, some kind of passing chord: [EX 60](#). Thus a whole chord can be a passing chord, or a “neighbor-chord”: [EX 28](#). Double SPs are common: [EXX 61, 63, 43](#); a familiar case is the resolution of a  $\frac{6}{4}$ -chord: [EX 62](#). Simultaneous NHTs can occasionally, however, give rise to strikingly dissonant transient sonorities in the Chorales: [EXX 64-65](#). Notice again: the parallel 5<sup>ths</sup> that can arise between different types of NHTs at a cadence are tolerated: [EX 66](#). Which is the chord, and which is the dissonance, is very much a matter of context in more elaborate music; in [EX 67](#) one would probably speak of an AP chord above basically tonic harmony, simply because tonic harmony is the norm here.

### “Slow” NHTs

are defined here as those in which the voice forming the dissonance is never heard in consonant relation to that chord with which the dissonance occurs. If we consider a dissonance to persist essentially until its resolution, a slow dissonance is one which the dissonant note lasts virtually as long as the chord itself. For strong-beat dissonances, this means that the “resolution” does not occur until the next chord-change; for weak-beat dissonances this requires that the chord changes simultaneously with the dissonance, on the weak beat, as well as, necessarily, on the next downbeat.

These “slow dissonances” are not uncommon in the Chorales, but most of them are suspended 7<sup>ths</sup>, resolving after the chord has changed: [EXX 68-71](#). In such cases, the major 7<sup>ths</sup> feel a little more like NHTs; the minor 7<sup>ths</sup> more like chord tones. Notice that a so-called “weak SP”, of types {17} and {19}, is often a slow NHT, since it is dissonant by virtue of being held through a chord change, “resolving” on the next downbeat, which is itself ordinarily marked by a new chord. In [EX 72](#) we have two “slow suspensions”, both 7<sup>ths</sup>, one strong and one weak, both arising from passing harmonies, and at the eighth-note speed hardly noticeable as dissonances.

“Slow PT's” are again usually 7<sup>ths</sup>: [EX 73](#). This type should probably be distinguished from PTs which are “slow” in tempo in the Chorales, moving by quarter-note, but still occurring within one harmony: [EXX 74-76](#).

Similarly, if we count 7<sup>ths</sup> as dissonances, it is possible to find a few dubious examples of slow AP ([EX 77](#)), slow NT ([EXX 78-80](#)), and maybe even a slow AN ([EX 81](#)). The bass in [EX 46](#) could also be interpreted as a slow NT.

If we want unequivocal (non-7<sup>th</sup>) examples of these, however, we have to manufacture them, and they don't sound much like Bach: [EXX 82-92](#). Notice also: successive "slow dissonances" don't sound much like 18<sup>th</sup>-century harmony either: [EX 93](#).

Summary rules of thumb for writing NHTs in chorale harmonizations:

1. Most dissonances resolve downward by step. The exceptions are:  
    SP, which can resolve upward by half-step, or remotely,  
    a rising PT ,  
    a lower NT,  
    the échappée
2. SP's are essentially a strong-beat dissonance; in any case the dissonance must occur on a beat no weaker than that of the resolution. Prepare the dissonant suspension as a consonant note!  
    Échappées and ANs are weak.  
    The NT is usually weak.  
    PT and AP can be strong or weak.
3. Simultaneous NHTs should harmonize within themselves.
4. Use the AP sparingly, mostly in inner parts in conjunction with simultaneous NHTs in other parts to form a passing harmony.
5. Echappées should be eighth-notes only, and should anticipate the next harmony.
6. ANs should be used only at cadences.
7. Successive "slow dissonances", or excessive use of them, are unstylistic; the only ones that are really typical of the 18<sup>th</sup> century are slow suspensions. All others should be (minor) sevenths only.
8. The note of resolution of a NHT should not be doubled elsewhere in the chord, except in a 9-8 SP. The latter sounds best with the 3<sup>rd</sup> of the chord directly above the dissonance.

# Examples, Chapter IX

**EX 1**

#5<sup>7-8</sup>

**EX 2**

#23<sup>16-17</sup>

**EX 3**

#6<sup>1-2</sup>

for ascending strong bass PTs:  
#285<sup>10</sup>, #125<sup>9</sup>, #324<sup>9-10</sup>

**EX 4**

Mozart, Divertimento K.136/i

**EX 5**

Mozart, Symphony K.550/i, 44-51

**EX 6**

#192<sup>11-14</sup>



**EX 7**

#13<sup>3-4</sup>

**EX 8**

#1<sup>4-5</sup>

**EX 9**

#85<sup>1-2</sup>

also:  
#142<sup>7</sup>  
#136<sup>10</sup>

**EX 10**

#29<sup>3-4</sup>

**EX 11**

#215<sup>1-3</sup>

also:  
#137<sup>4</sup>  
#138

**EX 12**

#195<sup>5-6</sup>

also:  
#35<sup>5-12</sup>  
#386<sup>3</sup>

**EX 13**

#111<sup>8</sup>

also:  
#203<sup>29</sup>

**EX 14**

#5<sup>9-10</sup>

also:  
#215<sup>31</sup>  
#143<sup>4</sup>  
#220<sup>16</sup>  
#203<sup>15</sup>  
#135<sup>16</sup>

**EX 15** #38<sup>11-12</sup>

**EX 16** #143<sup>3-4</sup>

**EX 17** #203<sup>14-16</sup>

**EX 18** #178<sup>7-8</sup>

**EX 19** #134<sup>4-6</sup>

**EX 20** Mozart, Pf Son K.284/iii, var 1, 13-17

**EX 21** #16-7

**EX 22** #154-6

**EX 25** #96-8

**EX 26** #1965-6

**EX 27** #567-8

**EX 28** #1147-8

**EX 29** #15212-14

**EX 30** #48-10

**EX 31** #49<sup>11-12</sup>

**EX 32** #193<sup>7-8</sup>

**EX 33** #10<sup>3-4</sup>

**EX 34** #334<sup>5-6</sup>

Bach, WTC I/Prelude I, 1-4  
note-values quartered

**EX 35**

ii<sup>4</sup>

**EX 36** #11<sup>4</sup>

**EX 37** #222<sup>15-16</sup>

**EX 38** #194<sup>5-6</sup>

**EX 39** #214<sup>4-5</sup>

**EX 40** #156<sup>9-10</sup>

also:  
#103<sup>9</sup>  
#341<sup>9</sup>  
#147<sup>9</sup>

**EX 41** #84<sup>1-2</sup>

also:  
#137<sup>8</sup>

**EX 42** #136<sup>5-7</sup>

**EX 43** #158<sup>10-12</sup>

**EX 44** #305<sup>7-8</sup>

also:  
#141<sup>9</sup>

**EX 45** RS

**EX 46** #203<sup>18-20</sup>

**EX 47** #215<sup>21-24</sup>

**EX 48** #4<sup>2-4</sup>

**EX 49** #209<sup>5-6</sup>

**EX 50** #203<sup>11-12</sup>

**EX 51** Palestrina: *Missa iam Christus*,  
Agnus Dei II, 38-39

**EX 52** #54<sup>1</sup>

**EX 53** #54<sup>7-8</sup>

**EX 54** Beethoven, String  
Quartet Op 18 #1/i

Mozart, Piano Concerto  
K.466/iii, 147-150

EX 55

Musical score for EX 55, Mozart Piano Concerto K.466/iii, measures 147-150. The score is in C major, common time. The right hand features a melodic line with slurs and a trill-like figure. The left hand plays a steady eighth-note accompaniment.

Mozart, Flute-Harp  
Concerto, K.299/iii

EX 56

Musical score for EX 56, Mozart Flute-Harp Concerto, K.299/iii. The score is in C major, common time. The right hand has a melodic line with slurs. The left hand has a bass line with rests and occasional notes.

Mozart, String  
Quartet K.464/i

EX 57

Musical score for EX 57, Mozart String Quartet K.464/i. The score is in A major, 3/4 time. The right hand has a melodic line with slurs. The left hand has a bass line with rests and occasional notes.

Mozart, Piano  
Concerto K.271/iii

EX 58

Musical score for EX 58, Mozart Piano Concerto K.271/iii. The score is in B-flat major, common time. The right hand has a melodic line with slurs. The left hand has a bass line with rests and occasional notes.

Beethoven, Symphony XIII/ii

**EX 59**

**EX 60** #388<sup>4-6</sup>

**(EX 60)** #388<sup>1</sup>

**EX 61** #326<sup>8-10</sup>

**EX 62** #159<sup>5-6</sup>

**EX 63** #204<sup>32-34</sup>

**EX 64** #187<sup>2</sup>



**EX 65** #198<sup>8</sup>

**EX 66** #11<sup>3-4</sup>

Mozart, Pf Son  
K.283/ii, 39

**EX 67**

**EX 68** #15<sup>7-11</sup>

**EX 69** #43<sup>10-12</sup>

**EX 70** #144<sup>1-2</sup>

**EX 71** #166<sup>4-6</sup>

**EX 72** #150<sup>9-11</sup>

**EX 73** #294<sup>11-12</sup>

**EX 74** #126<sup>9-10</sup>

**EX 75** #205<sup>9-10</sup>

**EX 76** #328<sup>9-10</sup>

**EX 77** #361<sup>9-10</sup>  
(or ii<sub>3</sub><sup>4</sup>)

**EX 78** #365<sup>9-10</sup>  
(or soprano a slow PT)

**EX 79** #360<sup>1-2</sup>

**EX 80** #178<sup>7-8</sup>

**EX 81** #154<sup>12-13</sup>

(or ii<sup>6</sup><sub>5</sub>)

**EX 82** (slow PTs)

**EX 83** (slow PT)

**EX 84** (slow NT)

**EX 85** (slow NT)

**EX 86** (slow AP)

**EX 87** (slow AP)

**EX 88**

**EX 89**

**EX 90**

**EX 91**

**EX 92**

**EX 93**

**EX 94** Bach, WTC I, Fugue IV, 70

**EX 95** Bach, WTC I, Fugue XXIV, 9-10

**EX 96** Bach, English Suite I, Courante I, 12

Bach, English Suite III, Prelude, 173

**EX 97**

Bach, English Suite I, Allemande, 22

**EX 98**

Bach, English Suite II, Sarabande, 10-12

**EX 99**

Bach, English Suite I, Courante II, Double I, 23-24

**EX 100**

**EX 101 (no examples yet)**

**EX 102 (no examples yet)**

**EX 103 (no examples yet)**

**EX 104 (no examples yet)**

**EX 105** Bach, WTC I,  
Prelude XIII, 4-5

**EX 106 (no examples yet)**

**EX 107** Bach, WTC I,  
Prelude VII, 10-12

**EX 108 (no examples yet)**

**EX 109 (no examples yet)**

**EX 110 (no examples yet)**

**EX 111** Bach, French Suite I,  
Sarabande, 12-14

**EX 112** Bach, English Suite III,  
Sarabande, 22-23

Bach, English Suite I,  
Courante II, Double II, 5-6

EX 113 (no examples yet)

Musical notation for EX 113, showing two empty staves in G major, 3/4 time signature.

EX 114

Musical notation for EX 114, showing a piano accompaniment for Courante II, Double II, 5-6. Includes a downward arrow pointing to a note in the right hand.

Bach, English Suite I,  
Courante II, Double II, 22-23

EX 115 (no examples yet)

Musical notation for EX 115, showing two empty staves in D major, 3/2 time signature.

EX 116

Musical notation for EX 116, showing a piano accompaniment for Courante II, Double II, 22-23. Includes a downward arrow pointing to a note in the right hand.

EX 117

Bach, WTC II,  
Prelude I, 30-31

Musical notation for EX 117, showing a piano accompaniment for Prelude I, 30-31. Includes an upward arrow pointing to a note in the left hand.

EX 118

Bach, English Suite IV,  
Allemande, 24

Musical notation for EX 118, showing a piano accompaniment for Allemande, 24.

EX 119

Bach, English Suite III,  
Prelude, 101-103

Musical notation for EX 119, showing a piano accompaniment for Prelude, 101-103. Includes a downward arrow pointing to a note in the left hand.

EX 120

Bach, English Suite I,  
Allemande, 2-3

Musical notation for EX 120, showing a piano accompaniment for Allemande, 2-3. Includes a downward arrow pointing to a note in the right hand.

Bach, English Suite I,  
Courante II, Double I, 1

**EX 121**

Bach, French Suite III,  
Menuet, Trio, 22-24

**EX 122**

Bach, English Suite I,  
Courante II, Double I, 15

**EX 123**

**EX 124 (no examples yet)**

Bach, WTC I,  
Prelude XII, 7-8

**EX 125**

**EX 126 (no examples yet)**

Bach, English Suite I,  
Courante II, Double II, 1-2

**EX 127**