CHAPTER TEN

*Non-Harmonic Tones: Introduction*

Non-harmonic tones are notes which are not part of the chord, or implied harmony. They may also be referred to as non-chord tones, auxiliary tones, or embellishment tones.

A non-harmonic tone appears in a vertical sonority, but plays no part in the theory of inversion of that sonority.

A non-harmonic tone must always be prepared and resolved in the same voice in which it appears. The manner in which it is approached and resolved will determine its name.

**THEORY OF NON-HARMONIC TONES**

A non-harmonic tone is related melodically to one of the members of the chord. Notice the potential non-harmonic tones that relate to each member of the C-major triad:

![Diagram of C-major triad with non-harmonic tones]

Along with the three tones of the triad, the nine potential non-harmonic tones comprise the entire chromatic scale.

Non-harmonic tones that appear in the key signature, or have the spelling of a scale tone, are called **diatonic non-harmonic tones**.

Non-harmonic tones with spellings foreign to the key signature are called **chromatic non-harmonic tones** (or altered non-harmonic tones) and will be studied in Theory IV.
CLASSIFICATION OF NON-HARMONIC TONES

**passing tone** - prepared by step and resolved by step in the same direction
  - Single, double, triple and quadruple
  - Unaccented and accented

**suspension** - prepared by the same tone and resolved by step downwards.
  - Single and double
  - Occur on accented beat
  - Preparation must be at least the same rhythmic value as the suspension

**neighboring tone** - prepared by step and resolved by step in opposite direction
  - Upper and lower
  - Single, double, triple, quadruple
  - Unaccented and accented

**retardation** - prepared by the same tone and resolved by step upwards.
  - Special kind of suspension that is common in the Classical Period
  - Single and double

**anticipation** - prepared by step and resolved by the same tone.
  - Found at the cadence in the soprano.
  - Anticipates the final tonic triad
  - Double – tenor and soprano.
  - Unaccented

**appoggiatura** - prepared by leap and resolved by step, usually in opposite direction.
  - Common in the Classical Period.

**escape tone** - prepared by step and resolved by leap, usually in opposite direction.
  - Found in the soprano near the cadence.

**changing tone group** - prepared by step and resolved by step to same tone
  - Two non-harmonic tones, a third apart
  - Common in the Classical period.
  - Same as a turn.
  - Not found in Chorale style.

**pedal point** - prepared and resolved by the same tone
  - Common in organ music in the Baroque period
  - Common in chorale music of the Romantic period
  - Not common in 18th century chorale style

**free tone** - prepared and resolved by leap
  - Common in Classical and Romantic period
The following table illustrates the relative frequencies of non-harmonic tones. Comparing sixteenth century style with Bach’s style:

<table>
<thead>
<tr>
<th>TYPE</th>
<th>16&lt;sup&gt;th&lt;/sup&gt; CENTURY</th>
<th>BACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passing tone</td>
<td>very frequent</td>
<td>very frequent</td>
</tr>
<tr>
<td>Suspension</td>
<td>quite frequent</td>
<td>quite frequent</td>
</tr>
<tr>
<td>Neighboring tone</td>
<td>less frequent</td>
<td>frequent (upper and lower)</td>
</tr>
<tr>
<td></td>
<td>(lower only)</td>
<td></td>
</tr>
<tr>
<td>Anticipation</td>
<td>not too frequent</td>
<td>not too frequent</td>
</tr>
<tr>
<td>Escape tone</td>
<td>not too frequent</td>
<td>not too frequent</td>
</tr>
<tr>
<td></td>
<td>(only in cambiata figure)</td>
<td></td>
</tr>
<tr>
<td>Appoggiature</td>
<td>none</td>
<td>rare in chorales</td>
</tr>
<tr>
<td>Changing tone</td>
<td>none</td>
<td>rare</td>
</tr>
<tr>
<td>Pedal point</td>
<td>rare</td>
<td>rare in chorales</td>
</tr>
</tbody>
</table>
Passing tones appear in the chorale-style partwriting according to the following table:

**Single**
- **unaccented**
  - ascending
  - descending
- **accented**
  - ascending
  - descending

**Double**
- **similar motion**
  - unaccented
    - ascending
    - descending
  - accented
    - ascending
    - descending
- **contrary motion**
  - unaccented
  - accented

**Triple**
- **similar motion**
  - unaccented
  - accented
- **two similar/one contrary**
  - unaccented
  - accented

**Quadruple**
- **two similar/two contrary**
- **three similar/one contrary**
UNACCENTED SINGLE PASSING TONE

The unaccented passing tone is the most frequent non-harmonic tone. It appears ascending or descending in any voice.

Mach's mit mir, Gott

In the example above, the passing tones at 1, 2, 4 and 5 move to the next chord in similar motion with one or two other voices.

The passing tone at 3 moves in contrary motion to the remaining three voices.

The passing tone at 6 moves in oblique motion to the tenor, and in contrary motion to the remaining voices.

DEDUCTIONS

The melodic interval of a third formed by two harmonic tones in a progression of two chords is frequently filled in by a passing tone. An exception is found in the authentic cadence, or within the phrase when the three upper voices of the dominant triad progress downwards to the next chord tones of the tonic triad (second procedure). Passing tones between leading tone and dominant are rare in the chorales.

Exercises:

In the following exercises fill in the interval leap of a third in each voice:
ACCENTED SINGLE PASSING TONE

When the passing tone appears on a beat, it is called an *accented passing tone*. Descending accented passing tones are more frequent than ascending ones. They are often approached by an unaccented passing tone, producing two passing tones in a row, or consecutive passing tones. They most often occur in the bass.

Exercises:
In the following exercises, insert several passing tones, including at least one accented passing tone. You will have to shift the rhythmic placement of the notes to fit in the accented passing tone.

UNACCENTED DOUBLE PASSING TONES

Unaccented double passing tones appear in similar motion ascending and descending, and in contrary motion. They are frequently, and any combination of two voices may be employed. The percentage of ascending double passing tones is slightly higher than that of the descending type.

Erhalt' uns, Herr, bei deinem Wort  
J.S. Bach

About 84% progress in similar motion in thirds or sixths, about 16% are found to be in the contrary motion.
Exercises:
In the following exercises use single and unaccented double passing tones:

[Music notation image]

ACCENTED DOUBLE PASSING TONES

Accented double passing tones are infrequent. They appear in similar and contrary motion. Those found in similar motion are not common, and those found in contrary motion are extremely rare.

Nun lob', mein' Seel', den Derren  J.S. Bach

[Music notation image]

In the example above, at 1 the accented double passing tones are in thirds, rising to the first inversion of the E7 chord.

Exercise:
In the following exercise use single passing tones, and at least one unaccented double passing tone:

[Music notation image]
TRIPLE PASSING TONES AND THE PASSING CHORD

Triple passing tones appear having two voices moving contrary to the third voice. In the following example, the triple passing tones at 1, along with the held tone, do not spell a chord (E – E – G – A).

In the next example, the triple passing tones at 1, along with the held tone, spell seventh chord in second inversion. This chord does not function in the normal sense of chord classifications.

A **passing chord** results if the vertical sonority formed by the three voices moving step-wise, along with the fourth remaining stationary voice, forms a chord that is non-functional.

Passing chords in the form of triple passing tones are more frequent than triple passing tones that do not spell a chord.

Passing chords may also result from combinations of passing tones and neighboring tones.
QUADRUPLE PASSING TONES

Quadruple passing tones are rare.

Ach Gott, wie manches Herzeleid

J.S. Bach

UNCONVENTIONAL DOUBLING IN THE ROOT POSITION OF TRIADS INFLUENCED BY PASSING TONES

In the Bach Chorales, only 3% of the major triads in root position, and 2% of the minor triads, have the fifth doubled. Practically all triads with the doubled fifth are involved in progressions containing non-harmonic tones or other dissonances.

Christus, der uns selig macht

J.S. Bach

Another unusual vertical structure of a triad appears in connection with the non-harmonic tones is composed of two roots and two thirds.

Triad with Two Roots and Two Thirds

Herzlich lieb hab' ich dich, o Herr

J.S. Bach
PARTWRITING EXERCISES CHAPTER 11

For each of the following, provide alto and tenor voices. Identify the key and provide Roman numerals. Circle and label each passing tone.

1.

2.

3.
CHAPTER TWELVE

The Suspension

The suspension is prepared by the same tone and resolved by step downwards.

An analysis of 371 chorales* reveals that Bach used 1,661 suspensions of various types. According to these figures an average of over four suspensions for each chorale could be expected. In reality, there are 21 chorales without suspensions, 61 with one suspension, 56 with two, 43 with three and so on. There are a few chorales which contain as many as 19 suspensions. The longest chorale “herr Gott, dich loben wir”, which is really a combination of a number of chorales, contains 45 suspensions. The majority of chorales, however, have from one to four suspensions.

There are two kinds of suspensions, the single and the double. A little over 90% are single suspensions. These single suspensions are found throughout the phrase, but the double suspension is localized in the cadence formula.

* The Suspension in the Chorale Harmonizations by Bach, by Wayne Loren Dunlap, 1942.

SINGLE SUSPENSION

The single suspension may be found in any voice, but Bach had a definite preference. The following table shows the percentage frequency in each voice.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soprano</td>
<td>2%</td>
</tr>
<tr>
<td>Alto</td>
<td>71%</td>
</tr>
<tr>
<td>Tenor</td>
<td>23%</td>
</tr>
<tr>
<td>Bass</td>
<td>4%</td>
</tr>
</tbody>
</table>

A suspension must be prepared and resolved, and so it involves three notes: the preparation note, the suspension note, and the resolution note.

The preparation note may be tied to the suspension note, or the suspension note may repeat the preparation note.
TYPES OF SINGLE SUSPENSIONS

Suspensions are named according to the intervals formed between the bass, and the suspension and resolution notes.

The **4-3 suspension** is the most common single suspension. It is found most often in the Dominant chord. If it is used in a Plagal Cadence, it is found on the Tonic chord.

![Musical staff with 4-3 suspension example]

The **9-8 suspension** is the next most common single suspension. It is found most often in the Tonic chord.

![Musical staff with 9-8 suspension example]

The **7-6 suspension** is the next in frequency. It is most commonly found in the Leading Tone chord, which is always found in first inversion. The 6 in the 7-6 indicates first inversion.

![Musical staff with 7-6 suspension example]
The **2-3 bass suspension** is most commonly found on the Dominant Chord.

The **2-1 suspension** is always found in the tenor, and is rare. While the 9-8 suspension may appear in any octave above the bass, the 2-1 suspension must always be a second above the bass, and thus must always be in the tenor.

**DEDUCTIONS**

Every suspension demands a preparation note, a suspension note, and a resolution note.

The preparation note is a harmonic tone of the same pitch as the suspension note.

The suspension note is a dissonant tone.

The resolution note is a harmonic tone.

The suspension note descends either a half step or a whole step to the resolution note.

In the 4-3 and 7-6 suspensions the resolution note is rarely doubled in another voice.

In the 9-8 suspension the resolution note is doubled by the bass.

Under certain conditions parallel fifths may be avoided by use of a suspension.
The preparation note is usually twice as long, or equal to the length of the suspension note. The suspension note should not have a time value greater than that of the preparation note.

![Correct and Incorrect Examples]

Partwrite the following exercises, using passing tones and single suspensions:

1. 

   ![Exercise 1]

2. 

   ![Exercise 2]

3. 

   ![Exercise 3]
SINGLE SUSPENSION WITH CHANGE OF THE BASS TONE

Occasionally, when the suspended note resolves, the vertical structure may be a different inversion of the harmony or a new harmony. In both instances the normal resolution note is not disturbed.

The 9 suspension with a change of bass is the most frequent, but this type of suspension may also occur on the 7, and rarely in the 4 (never when the single 4 suspension occurs in the dominant harmony).

The 9, 7, and 4 suspensions are treated in the same way as the 9-8, 7-6, and 4-3 suspensions. They have a preparation note, suspension note, and resolution note. The resolution, however, occurs as the bass moves either down a third, or up a third.

ORNAMENTAL SINGLE SUSPENSION

Occasionally, the suspension of the 4th and 9th are given a decorative melodic line at the time of resolution. The melodic ornament may contain step-wise motion, or leaps as large as a fifth. Most ornamental resolutions are located in either the dominant or tonic chords in the cadence. They may be found infrequently within the phrase in tonic or dominant harmonics. Sometimes passing tones may be found in another voice concurrent with the ornamental resolution of a suspension.
CHAIN SUSPENSION

A chain suspension consists of two or more suspensions in the same voice, in which the resolution of one suspension becomes the preparation of the next suspension. The 9-8 and 4-3 suspensions may be combined to form a chain suspension.

Komm, Gott Schöpfer, heiliger Geist

DOUBLE SUSPENSION

Double suspensions are infrequent. The majority appear in either the tonic or dominant harmonies. A few are found in the subdominant harmony. Although a double suspension may appear within a phrase, the greater majority are found at the cadence. The preparation note, suspension note, and resolution note will be found for each voice involved in the double suspension.

The 6-5 is the most common double suspension, the next is the 9-8.

Was mein Gott will, das g’scheh’

PARTWRITING EXERCISE CHAPTER 12
CHAPTER THIRTEEN

The Neighboring Tone: Passing Tone Suspension, Neighboring Tone in Combinations

The **neighboring tone** is next in the order of non-harmonic tone frequency. Single, double, and triple neighboring tones are found in the chorales.

**Single neighboring tones** are classified into two groups: lower neighboring tone (more frequent) and the upper neighboring tone. Accented neighboring tones are possible but they are rare.

The neighboring tone forms either a half-step or whole-step relation to the harmonic tone, depending on its position in the diatonic scale.

The neighboring tone is found in all voices, least often in the soprano.

![Schaut, ihr Sünder and Auf, auf, mein Herz](image)

**DEDUCTIONS**

Lower neighboring tones are most frequent.

The majority of neighboring tones are found in tonic harmony, next in dominant and subdominant, and least of all in the remaining functions.

Occasionally the resolution tone of the neighboring tone is non-harmonic, due to a change of chord. Under these circumstances, the resolution tone usually has the characteristics of an accented passing tone.

Partwrite the following exercise, using passing tones, suspensions, and neighboring tones:
**Double neighboring tones** are less frequent than single. Upper double neighboring tones and contrary double neighboring tones are rare in comparison to the lower double neighboring tones.

The interval between two voices in which double neighboring tones appear is usually a third or a tenth. Double lower neighboring tones in similar motion usually form the interval of a third, or tenth. In contrary motion, they form other intervals, depending on the preceding notes.

![Musical Examples](image)

**DEDUCTIONS**

Lower double neighboring tones are the most frequent. The interval formed by the two voices in which lower double neighboring tones appear is usually a third or a tenth.

Contrary double neighboring tones are less frequent. The intervallic pattern created by two voices in which double neighboring tones appear in contrary motion, is as follows.

- third – fifth – third
- sixth – fourth – sixth
- octave – sixth – octave

Upper double neighboring tones are rare. The interval formed by the two voices in which upper double neighboring tones appear is most often a third, but a sixth is possible.

Partwrite the following exercises, using passing tones, suspensions, and neighboring tones:
There are a few examples of **triple neighboring** tones. The following examples illustrate Bach's use of this type of non-harmonic device:

**Valet will ich dir geben**

![Musical notation example](image1)

Passing tones may occur in combination with neighboring tones, usually originating in the tonic harmony.

**O Traurigkeit, o Herzeleid**

![Musical notation example](image2)

Suspensions may be found in combination with neighboring tones. This device is most often found in dominant harmony in the cadence formula.

**Wer Gott vertraut, hat wohl gebaut**

![Musical notation example](image3)

In the following exercise, use neighboring and passing tones, and suspensions:
CHAPTER FOURTEEN

Other Non-harmonic Tones

ANTICIPATION

Single and double anticipations are among the least used non-harmonic tones. They are principally located in cadences.

Des heil'gen Geistes reiche Gnäd'

Anticipations are usually found in the cadence, anticipating members of either the tonic harmony or the dominant harmony. Anticipations are frequently used in combination with passing tones or suspensions.

The single anticipation usually appears in the soprano. The double anticipation usually appears in the soprano and tenor.

ESCAPE TONE

Single and double escape tones are among the least used non-harmonic tones. They are found within the phrase, usually close to the cadence.

Hast du denn, Jesu, dein Angesicht

The single escape tone is found in the soprano and rarely in other voices. The majority of escape tones are found in tonic harmony.

The escape tone is always approached stepwise ascending from the harmonic tone, and it is resolved by leap, descending to the next harmonic tone.

Double escape tones are approached and resolved in the same manner as single escape tones, and form the interval of a third, and sometimes a sixth.
APPOGGIATURA

The appoggiatura is among the least used non-harmonic tones. Single appoggiatures are rare and double appoggiatures are practically non-existent.

Jesu, nun sei gepreiset

The single appoggiatura may be found in any voice. It is found often on the beat and less often on the weak part of a beat.

The appoggiatura is approached from below by a leap of a third and resolved downwards by step.

Similar fifths and octaves are avoided with the use of the appoggiatura.

PEDAL POINT

Pedal point is not a characteristic device in chorales.

Verheih’ uns Frieden gnädiglich

If the sustained tone is in an upper voice, it is an inverted pedal point.

Auf dich hoffen vir

Inverted pedal points may be the tonic, dominant, or median tones of the key. If two tones are sustained, the device is called double pedal point.
CHORALE HARMONIZATIONS USING NON-HARMONIC TONES

The method of approach to harmonization of the chorale remains unchanged. The student must first approach the harmonization as if he intended to use triads. After the framework is decided upon, the four-voice solution may be worked into a contrapuntal harmonic style – an increased melodic interest in each voice line.

Be sure that every non-harmonic tone that you insert or create follows the rules and does not create parallels. Non-harmonic tones tend to increase the melodic interest of the bass melody which must be solid before the non-harmonic tones are inserted. Many of the leaps of a third and fourth are filled in by passing tones.

Use the non-harmonic tones tastefully and stylistically, following the outlines in the previous chapters.

With the exception of the anticipation and the escape tone, DO NOT add non-harmonic tones to the soprano line.

PARTWRITING EXERCISE - CHAPTER 14

Partwrite the following exercises using all the non-harmonic tones:

1.

2.