Partimenti Pedagogy at the European American Musical Alliance, 2009-2010

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The following document summarizes the method of teaching partimenti (*basses et chants donnés*) at the European American Musical Alliance (EAMA) in Paris, France. EAMA attempts to continue the tradition of Nadia Boulanger’s pedagogy. However, EAMA’s director, Philip Lasser, has incorporated his own unique perspectives as well. The program’s closest links to Boulanger’s teaching are through two of her students who serve as faculty: Narcis Bonet and David Conte. I attended the program in the years 2009 and 2010, studying chamber music and composition. I don’t claim to subscribe to every idea in this document. Rather, I present it as a (hastily prepared) distillation of EAMA’s teachings.

Part I: Voice-Leading & Doubling Rules

Music is a language (though not a universal one), and like any language, music exists as sounds and symbols which carry meaning. The most basic mode of expression in both music and language is the human voice. Therefore, even though figured bass is to be played on a keyboard instrument, it is still conceived as essential vocal music: it divides into four parts, like a choir; its ranges are that of the vocal parts that would sing them; and its phrases are of a natural singing length.

- As a general rule, move the outer voices in contrary motion. When contrary motion is not possible, try to move the soprano by step.
- When the bass moves by step, all other voices must move in the contrary motion. The only exception to this is the deceptive cadence.
- Use close position as the default between the upper three voices. If this creates parallels or other spacing problems, try an open position.
- No parallel 5ths or 8ths between any voice (parallel 4ths are perfectly acceptable)
- No more than an octave between the upper three voices; the tenor and bass may have any interval
- Any interval up to an octave (excluding a 7th, for now) is available melodically.
- In general, move as little as possible between chords. Keep common tones, except in the soprano, which may keep them but should also have an interesting melodic contour.

- Try to avoid direct 5ths & 8ths in outer voices unless one voice moves by step and the other voice moves by “harmonic step” (i.e. a perfect 4th or perfect 5th). Occasional direct 5ths and 8ths are unavoidable in four-part harmony, especially with the inner voices.
• Try to end with a perfect-authentic cadence (V-I in root position with the root in the soprano) and avoid the PAC until this point by having a different note in the soprano or one of the chords in inversion.

• Keep the four parts more or less within the ranges of a choir. As a basic rule, do not go above a high A in the soprano, or below a low D in the bass. The ranges of the inner voices are less important in the beginning.

• Keep chromatics in the same voice. This means that any accidental must be preceded by a pitch of the same letter name in the same voice part if that pitch is present in the preceding chord.

![Musical notation diagram]

\[
\text{ii}^6 \quad V^6_3/V \quad I \quad V^7_{vi} \quad V^6 \quad V^4_{2/IV}
\]

• If that pitch is doubled in the preceding chord, chose an outer voice to take the accidental.

![Musical notation diagram]

\[
V \quad V^6_{5/vi} \quad I^6 \quad V^4_{2/ii}
\]
• Note that failure to follow this rule results in a cross-relation and usually awkward voice leading.

![Musical notation]

• Regarding notation, always put the soprano and tenor stems up, and the alto and bass stems down. Also, always put the alto in the treble clef and the tenor in the bass clef.

The rules of voice leading apply to the moments between harmonies, not within a single harmony. Therefore, one can leap to any chord-tone freely while the overall harmony remains static, even creating direct 5ths. It is only when the harmony changes that the above rules apply, and it is then best to move by step.

Chord Functions: There are three possible functions for all chords in tonal music.

Tonic Function: I, vi, iii (vi and iii are weaker than I)
Dominant Function: V, vii<sup>o</sup>, iii (iii is weak, but is also v of relative minor)
Predominant Function: ii, IV (IV is weaker than ii)

Chord Syntax:

1. Tonic > Predominant > Tonic

This is the plagal cadence and is the weakest of the three cadences.

2. Tonic > Dominant > Tonic

This cadence is stronger because of the root motion down a fifth.

3. Tonic > Predominant > Dominant > Tonic

Number three is the strongest form of tonicization, especially when the Dominant and Tonic are in root position with the Tonic in the soprano, forming a perfect-authentic cadence (PAC).
Doubling Rules:

Nadia Boulanger said that harmony is the art of doubling. Harmony in four voices requires that all triads have one pitch doubled.

- **Root Position Triads**: Always double the root, if possible. If not, the 5th is acceptable. Only double the 3rd in the deceptive vi cadence or diminished triad (in root position). Any note may be in the soprano. If the 5th is omitted, triple the root rather than doubling the 3rd.

**Deceptive Spacing and a Diminished Triad Double the Third:**

The deceptive cadence is the only way the bass can move by step without all the other voices moving in contrary motion. The diminished triad in root position doubles the third to avoid doubling the tritone. Doubling a tendency tone results in parallel octaves. These two instances are the only time that a root position chord doubles anything other than the root.

The deceptive spacing does not have to follow the V chord, or be used only on vi. It is a useful spacing in many other scenarios.
The deceptive spacing is the basis for many other chords. By moving the other voices by step, we can create many variations. In this way, we see how highly chromatic harmony is based on simple rules.

- **First Inversion Triads:** The following table summarizes the rules for doubling.

<table>
<thead>
<tr>
<th>1st Inv. CHORD</th>
<th>I(^6) / i(^6)</th>
<th>ii(^6) / ii(^6)</th>
<th>iii(^6) / III(^6)</th>
<th>IV(^6) / iv(^6)</th>
<th>V(^6) / v(^6)</th>
<th>vi(^6) / VI(^6)</th>
<th>vii(^6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOTE TO DOUBLE</td>
<td>root</td>
<td>3rd</td>
<td>root</td>
<td>root or 5th</td>
<td>root</td>
<td>root (5th)</td>
<td>3rd</td>
</tr>
<tr>
<td>SOPRANO NOTE</td>
<td>root is best, 5th is ok</td>
<td>root is best, 5th is ok</td>
<td>root is best, 5th is ok</td>
<td>root is best, 5th is ok</td>
<td>root is best, 5th is ok</td>
<td>root is best, 5th is ok</td>
<td>root is best, 5th is ok</td>
</tr>
</tbody>
</table>

Almost all six-three chords will be in one of the following spacings (not just C Major, of course). The last spacing is less common because the 5th is in the soprano.
The highlighted area in the table above emphasizes an important exception where a six-three chord should double the third rather than the root. The other exception is $\text{vii}^6$, which like any diminished triad, doubles the third to avoid doubling tendency tones. Doubling a tendency tone results in parallel octaves.

Doubling the third of $\text{ii}^6$ emphasizes its predominant function by doubling the bass note. (Remember that the root is the bottom note when arranged in the thirds, and the bass is simply the lowest voice at any given time.) If $\text{ii}^6$ is not used in a predominant function, that is, it does not precede a dominant chord, do not double the third. This often happens in sequences.

**ii$^6$ Doubles the Third (Bass) to Emphasize Predominant Function:**

The reason for doubling the third of the cadential $\text{ii}^6$ is that it is acting more like a IV chord. In this view, the soprano is a melodically free pitch, making all the following chords belong to the same predominant family. Again, one can see how many chromatic chords originate from a simple concept—all of the chords below are predominant in function with scale degree four in the bass.
Lastly, the phrygian cadence is a common exception where doubling the 5th is actually required. A phrygian cadence is a type of half-cadence, named because the half-step motion in the bass resembles the phrygian church mode. It often ended slow movements in the Baroque era.

There are the three most common spacings, all of which double the 5th.

- **Second Inversion Triads**: Six-four chords do not exist like root position and first inversion chords. Rather, they are the by-product of melodic events. They are organized into four types.
  - (1) Passing, (2) Neighboring, (3) Cadential; always double the 5th, which is always in the bass, for all three types.
  - (4) Deceptive; double the root, though this chord is non-standard and can be seen as part of a passing structure. This chord was labeled as “deceptive” by Nadia Boulanger, so it is included here.

**The Four Types of Second Inversion Chords:**
• **Seventh Chords:** If using a complete seventh chord, then all four voices are used and no doubling is possible. If incomplete, only the 5<sup>th</sup> can be omitted, and then root must be doubled because the 3<sup>rd</sup> and 7<sup>th</sup> are tendency tones. Doubling a tendency tone results in parallel octaves.

• Note: A diminished 7<sup>th</sup> chord usually resolves to doubled 3<sup>rd</sup>, which resolves both diminished 5<sup>ths</sup> inward, towards each other. This is not always possible in practice, however.

**Diminished Seventh Resolves to Doubled Third:**

![Diminished Seventh Chord Resolution](image)
Part II: Sequences

The following system of understanding sequences was developed by Dr. Philip Lasser, and is not a part of the French tradition. In his system, there are only two types of sequences, which are distinguished by their bass motion: the cell of the 4\textsuperscript{th} and the cell of the 5\textsuperscript{th}. Both cells are possible with the second triad in first inversion.

Example 3a: The Cell of the 4\textsuperscript{th} and the Cell of the 5\textsuperscript{th}

Cell of the 4\textsuperscript{th} (C4)       Cell of the 5\textsuperscript{th} (C5)

These cells can repeat at any interval to form sequences (by step or leap, up or down). Here are some common intervals for sequential repetition.

Example 3b: Typical Intervals of Cell Repetition

C4 repeating down a diatonic 3\textsuperscript{rd}       C5 repeating down a diatonic 2\textsuperscript{nd}

Example 3c: Typical Intervals of Cell Repetition with Inversions

C4-I repeating down a diatonic 3\textsuperscript{rd}       C5-I repeating down a diatonic 2\textsuperscript{nd}
C4-I repeating down a third has a problem though – there are direct 5ths between the tenor and bass voices. Nadia Boulanger suggested this voicing instead:

**Example 3d: Mlle Boulanger’s Solution for C4-I Repeating Down a 3\textsuperscript{rd}**

![Example 3d: Mlle Boulanger’s Solution for C4-I Repeating Down a 3\textsuperscript{rd}](image)

C4 and C5 can also be reversed, making four possible variations in all.

**Example 4a: C4 and C5 with Chords Reversed**

<table>
<thead>
<tr>
<th>C4 Rev. (C4-R)</th>
<th>C5 Rev. (C5-R)</th>
<th>C4I Rev. (C4-IR)</th>
<th>C5I Rev. (C5-IR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Example 4a: C4 and C5 with Chords Reversed" /></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The retrograde versions can be distinguished from the regular versions by identifying which chord tone is in the soprano (the soprano note in the above examples is almost always maintained throughout the following exercises).

Here are some additional sequences using retrograde cells:

**Example 4b: Typical Intervals of Reversed Cell Repetition**

- C4-R repeating up a diatonic 2\textsuperscript{nd}
- C5-R repeating up a diatonic 2\textsuperscript{nd}

![Example 4b: Typical Intervals of Reversed Cell Repetition](image)
Example 4c: Typical Intervals of Inverted, Reversed Cell Repetition

C4-IR repeating up a diatonic 2\textsuperscript{nd}  
C5-IR repeating down a diatonic 2\textsuperscript{nd}

Cells can also modulate. This common sequence modulates up a 5\textsuperscript{th}.

Example 5: A Modulatory Sequence using C4-I Repeating Up a 3rd

Here are some examples of sequences from the literature, with analyses according to Lasser's method. Creative use of sequences results from how the surface rhythm is activated.

Example 6a: Mozart, Piano Concerto No. 9, K.271 - Mov. 3 (m.133-137)

The following analysis places greater importance to the first note of each measure because it is metrically accented, rather than the highest note in each measure. Notice Mozart’s adjustment of accidentals in the sequence to tonicize G-minor and C-minor. (The accidental A-flat also tonicizes E-flat Major, which is not represented in the following analysis).
Example 6b: C4 Repeating Down a Diatonic 3rd

Example 7a: Beethoven, Violin Sonata No. 3, Op. 12 – Mov. 3 (m.341-45)

Beethoven also makes adjustments to the sequence to tonicize F-minor:

Example 7b: C4-IR Repeating Down a Step

Example 8a: Brahms, Violin Sonata No. 3, Op. 108 – Mov. 3 (m.43-47)

Like Mozart and Beethoven, Brahms also makes adjustments to this sequence to tonicize A-Major.

Example 8b: C5-IR Repeating Up a Diatonic 2nd
Part III: Root Position Exercises

The figured bass exercises are taken from the collection compiled and published by Narcis Bonet from those written by Paul Vidal. Bonet arranges his two volumes in increasing difficulty:

- Root Position Triads
- First Inversion Triads
- Second Inversion Triads
- Diminished Triads
- Dominant Seventh Chords
- Non-Dominant Seventh Chords
- The Dominant Ninth Chord
- The Seventh on the Leading Tone
- The Diminished Seventh Chord
- Exercises with all previous chords
- The Augmented Sixth Chords

Example 9a: The first exercise for root position triads.

In order to facilitate reading at the piano, identify the location and type of sequences employed. Remember that in sequences, the same soprano note from the above examples will be used consistently throughout the exercises. It is also helpful to label soprano pitches occasionally, although eventually you will want to be able to realize the exercise without doing this.

Knowing the soprano note is very important because for root position triads, all three upper voices are almost always arranged in close position (i.e., without the omission of a chord tone between any voice), except for the deceptive vi, which doubles the third. Therefore, if the soprano note is identified, the alto and tenor notes can be placed under it easily.

As mentioned in Part I, the goal of voice-leading is to move as smoothly as possible between chords while avoiding parallel 5ths and 8vas and making the soprano as interesting as possible (i.e., avoiding common tones). Since the upper three voices are usually determined by the soprano note, moving the soprano stepwise and contrary to the bass will usually facilitate smooth voice-leading.
Example 9b: Annotated

Example 9c presents the finished realization, which usually would be done at sight at the piano. Remember that for root position triads, the root will usually be in the soprano. Notice how the soprano usually moves stepwise and contrary to the bass, while the alto and tenor are placed in close position beneath it. Some variations from this solution are possible.

Example 9c: Realization
This is another example using root position triads, with some soprano pitches given in fixed-do solfège.

Example 10a: Annotated

Example 10b: Realization
Here is one more example using root position triads. Note the deceptive use of an A-major triad in m.13.

Example 11a: Annotated
Notice in m.15 how Vidal uses IV rather than iv, and ii rather than ii\textsuperscript{6}, which prevents using an augmented second melodically in the soprano. Also, notice how the last beat of m.16 requires keeping a common tone in the soprano to prevent parallel 8vas with the bass.

An “X” indicates a location of a V-vi progression, which for voice-leading reasons, does not use the typical deceptive vi doubling of the third.

Example 11b: Realization
Part IV: First Inversion Exercises

Realizing exercises with first inversion triads requires use of the “melodic six solution.” The goal of this solution is to harmonize a series of parallel first inversion chords while avoiding parallel 5ths and 8vas. Notice that in the upper three voices, two voices move parallel while one moves contrary. Parallel fours are acceptable of course.

Example 12: Melodic Six Solution

In Part I it was stated that first inversion triads must always have the root in the soprano. When this solution is used, melodic considerations are overruling harmonic ones, so the root need not be in the soprano.

Here is an exercise using first inversion chords. The solfège pitches and analysis of the sequences are added in this example. Remember the doubling rules for first inversion triads, which were outlined in Part I. It can be assumed that chords without figured bass numbers are in root position. However, for sake of clarity, sometimes a “5” or “5/3” is included as a reminder.

Example 13a: Annotated

C4 up by diatonic 3rd

C4-I down by diatonic 3rd

Melodic six solution

C4-I up by diatonic 3rd

C4-I up by d. 3rd

C4 down by diatonic 3rd

8va pedal in S/T

re si...
Here it is realized. This example uses a portion of the “melodic six solution,” as well as a doubled pedal point. Pedal points call usually be identified by consecutive first inversion triads which move by leap, as in m.17-19.

Example 13b: Realization
Here is one final example of an exercise using first inversion triads my soprano notes and analysis. This example occasionally indicates the direction of the inner voices with an arrow.

Example 14a: Annotated

\[
\begin{array}{cccc}
\text{si} & \text{T}↑ & \text{8va} & \text{C4-I down by diatonic 3rd} \\
\text{6} & \text{6} & \text{B/T mel. six solution} & \text{8va} \\
\text{C4-IR down by diatonic step} & \text{dbl.} & \text{sol} & \text{dec. X} \\
\text{6} & \text{6} & \text{6} & \text{6} \\
\text{T}↓ & \text{la} & \text{C4-IR down by diatonic step} & \text{unis.} \\
\text{5} & \text{6} & \text{T/A mel. six la sol} & \text{unis.} \\
\text{X la fa} & \text{8va Pedal in S/T} & \text{dbl.} & \text{3rd} \\
\text{5 6} & \text{6 6} & \text{6} & \text{not dec. dbl.} \\
\end{array}
\]
Remember that ii₆ as predominant function will double the third to emphasis its predominant function. The deceptive voicing is used in m. 11 because it avoids parallel 5ths between soprano and tenor. Note that m.17 does not use the deceptive voicing in order to avoid parallel 5ths.

The “X” in Example 14 indicates that these first inversion chords are the product of voice-leading and do not require that the root be in the soprano. This example also uses the Boulanger solution for C4-I moving down by a third in m.6-7, as well as a doubled pedal point at the end (see next page for the realization).

Example 14b: Realization
Part V: Second Inversion Triads

Remember that there are only four types of second inversion triads: passing, neighboring, cadential, and the non-standard “deceptive.” No other second inversion chords should be used. It is important to note that all passing 6/4 chords have the same structure: two voices move stepwise in opposite direction (also called a voice-exchange), one voice is a lower neighbor, and the other remains a pedal. These four voices can be arranged in any vertical order, so long as the bass moves stepwise.

Example 15: Passing 6/4 Chords

This is the first exercise of the second inversion chords. It uses all four types of 6/4 chords.

Example 16a: Annotated
Here is the realization. Notice that the ii\(^6\) chord in m.19 doubles the root because it doesn't precede a V chord like the ii\(^6\) in the following measure. This example also used a doubled pedal point in m.15-16.

Example 16b: Realized
Part VI: Dominant Seventh Chords

The French labeling system for seventh chord inversions is as follows. The plus refers to the leading tone. A slash through a number means that pitch is lowered a half-step.

- Root Position: 7/+      - Third Inversion: +4
- First Inversion: 6/5
- Second Inversion: +6

The basic strategy for using dominant seventh chords is to begin by realizing the chord as if it were a triad, following the standard doubling rules. Then move one of the roots down a step to create the seventh chord. In the case that the seventh is already in the bass, proceed as if it were the root. The following example illustrates this procedure:

Example 17: Strategy for Realizing Dominant Seventh Chords

Remember that when possible, the seventh of a dominant seventh chord must be prepared by common tone in the previous chord. Most sevenths in figured bass exercises will be complete – that is, all four chord tones will be represented. If incomplete, only the 5th can be omitted. In that case, the root must be doubled because the 3rd and the 7th are tendency tones and would cause parallel octaves if resolved correctly.
Example 18a: Seventh Chord Exercise
Notice the various non-standard usages of the deceptive doubling in this example: m. 17 & 18 use it to create the “deceptive” 6/4 chord; m.27 uses it as a result of resolving the tendency tone in the tenor; and m.29 & 37 use it to avoid parallel 5ths in the alto and tenor. Bass motion under a dominant seventh usually indicates a voice-exchange with an upper voice. Measures 19 through 26 create an extended voice-exchange.

Example 18b: Realization

Bibliography: