

EXAMPLE OF A COMPOSITION

APPLICATIONS OF THE HARMONIC WHEEL

CONTENTS

- A simple example of composition is now fully developed.
- The 3 basic elements of music are clearly distinguished: *Melody, Harmony and Rhythm.*
- The composition will consists of two parts, each one having 32 bars. The first part will be in Major mode and the second one in minor mode.
- Along the whole process, the Harmonic Wheel will be used to harmonize, that is, to add chords to the melody.

FIRST 8 BAR PHRASE

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- We will begin by composing an 8 bar phrase.
- To do that, we choose a Key, a Time Signature and a Tempo.
- For instance, we choose the A Major key, the 4 over 4 time signature (or common time) and the tempo $\text{♩} = 120$.
- Now, we focus on the 3 elements of music: Melody, Harmony and Rhythm.

MELODY

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- Many melodies are made from a Motif.
- A Motif is a small group of notes which is repeated, although usually with some variations.
- Example: Motif with 4 notes and 2 bar length.

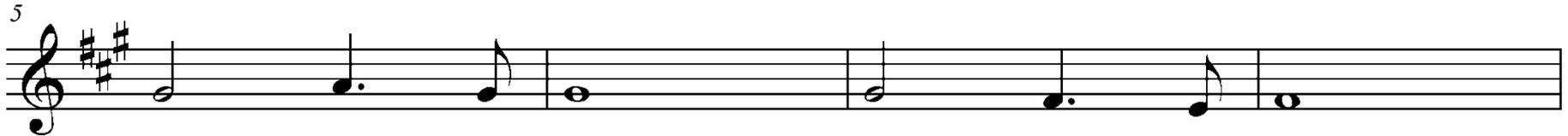
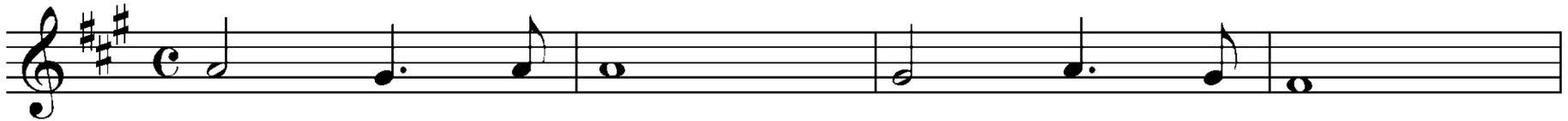


(By clicking on this symbol, we shall hear what is written on the staff)

MELODY

5

- We repeat the same motif several times, but changing the notes, until completing an 8 bar phrase.

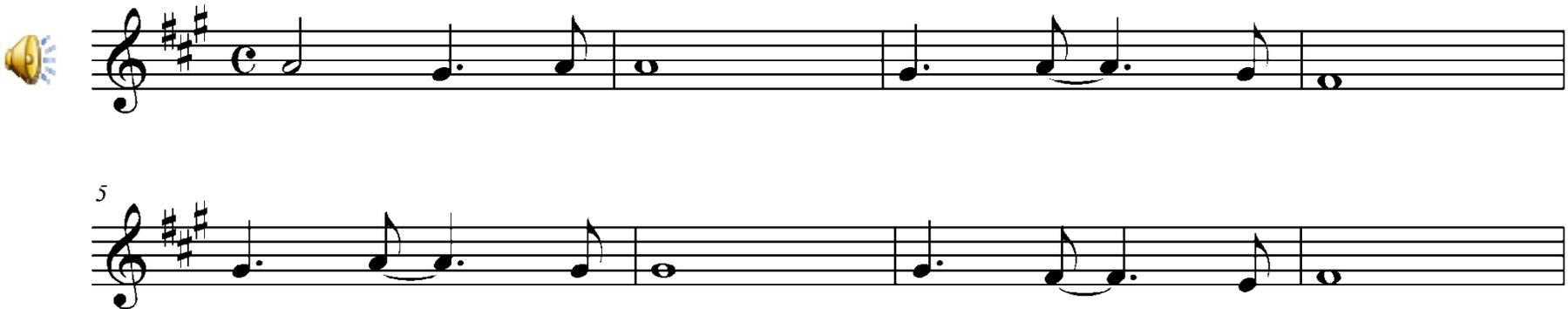


- Generally, phrases have 8, 12 or 16 bars, although there are phrases of any length.

MELODY

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- We can also displace some notes inside a bar in order to avoid a monotonous melody:

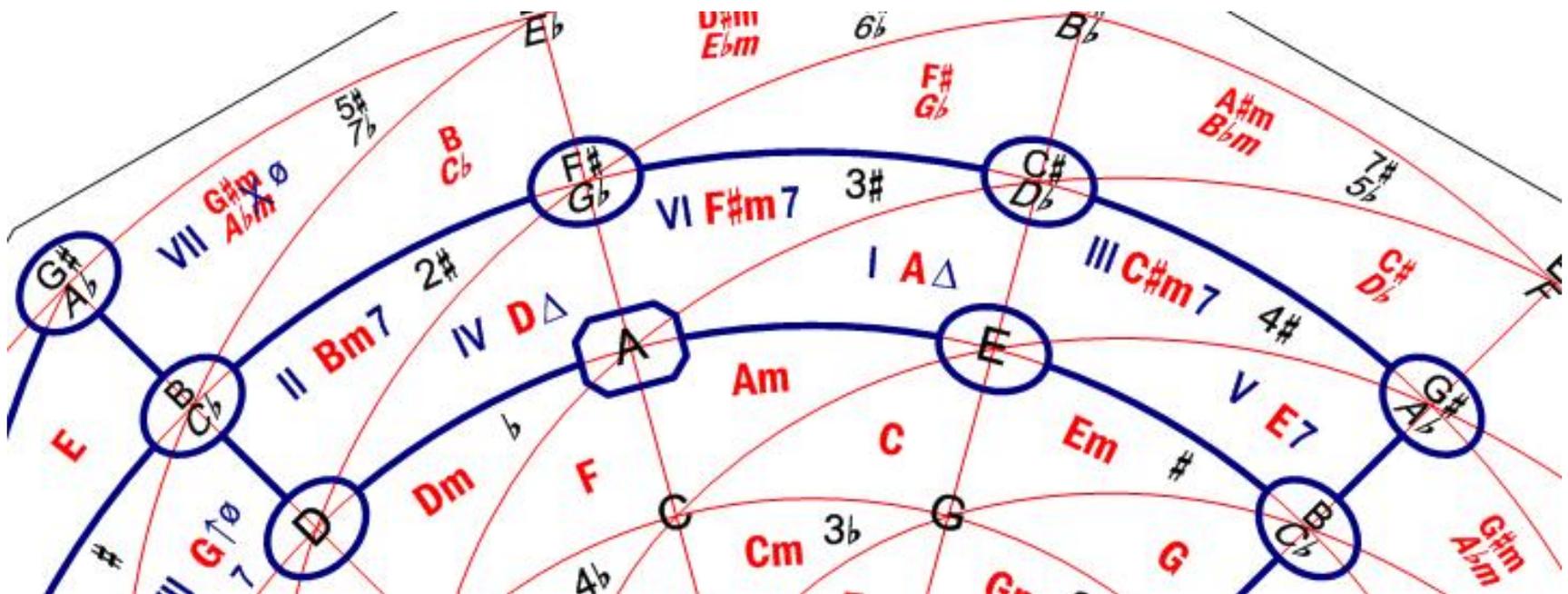


The image shows two musical staves in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature (C). The first staff is marked with a yellow bell icon on the left. It contains four measures of music. The notes are: G4 (quarter), A4 (quarter), B4 (quarter), C5 (half). The second staff is marked with a '5' above the first measure. It contains four measures of music. The notes are: G4 (quarter), A4 (quarter), B4 (quarter), C5 (half). The notes in the second staff are displaced relative to the first staff to create a more varied melody.

HARMONY

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- Now, we are going to harmonize the last phrase. To do that, we use the Harmonic Wheel, where we select the A Major Scale:



HARMONY

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- The Harmonic Wheel gives us the 7 basic chords to perform the harmonization, which are:

VII G#Ø

II Bm7 VI F#m7 III C#m7

IV DΔ I AΔ V E7

- It is also possible to use these chords without the 7th, that is, 3 note chords or triads.

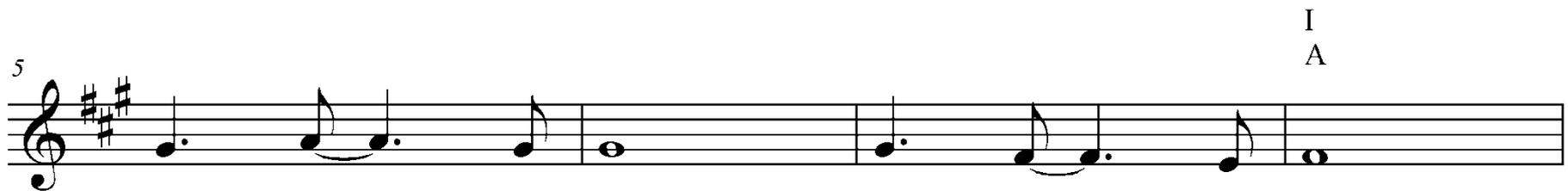
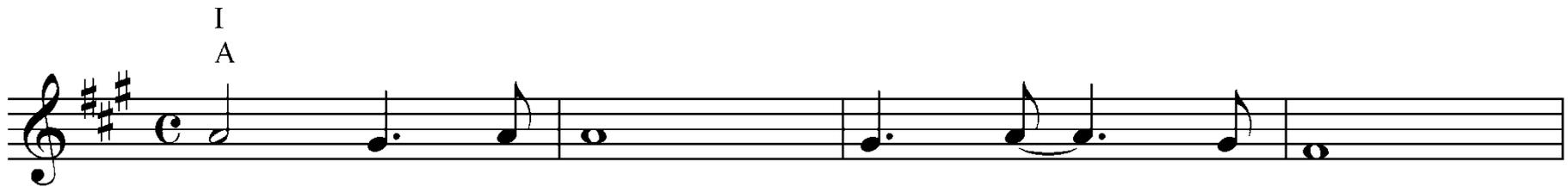
HARMONY

- Choosing the chords in each part of the melody needs some experience.
- A **basic rule** states that long notes in the melody must not be a half step above the chord notes, since they produce strong dissonances. The best thing is that they coincide with the chord notes or they be more than a half step above them.
- As an exception, the minor 9th and minor 13th dissonances in a V7 chord are accepted.

HARMONY

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- A simple way to begin is to put the Tonic chord or I degree in both the initial and the final bars. In our case, this chord is A Δ or A.



HARMONY

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- To go on with the harmonization, there are several chord progressions which are widely used, such as:

V7 I

IV I

IV V7 I

I IV V7 I

I IIm V7 I

I IIm7 V7 I

I VIIm IIm7 V7 I

IIIIm VIIm IIm7 V7 I

- For instance, we can try the chord progression

I IIm V7 I

HARMONY

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The image displays two staves of musical notation in treble clef with a key signature of three sharps (F#, C#, G#) and a common time signature (C). The melody consists of the following notes: A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4. The chord symbols are: I A (above the first measure), IIIm Bm (above the last measure), V7 E7 (above the fourth measure), and I A (above the last measure). The first staff contains measures 1 through 4, and the second staff contains measures 5 through 8.

- This harmonization meets the basic rule previously explained, as every note in the melody is a chord note or is more than a half step above.

HARMONY

- In any case, the quality of any harmonization must be evaluated by ear. To do that, we write the chords with whole or half notes and hear the phrase several times.
- When a bad sound result is heard, we shall change the corresponding chord, or adapt the melody as well.
- On the other hand, if the harmonization appears to be too simple, we can add some more chords. In our case, we shall include a pair of more chords and then hear the result obtained:

HARMONY

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- Between the chords IIm and V7, we can put a IIm7.
- Between the chords V7 and I, we can put a V+ in order to raise the dissonance of the V7 before reaching the I, which is a rest point.

Musical notation for the first line of a melody in A major. The key signature has two sharps (F# and C#) and the time signature is common time (C). The melody consists of the following notes: A4 (quarter), B4 (quarter), C#5 (quarter), A4 (half), B4 (quarter), C#5 (quarter), B4 (quarter), A4 (half). Above the staff, the chord progression is labeled as I (A) and IIm (Bm).

Musical notation for the second line of a melody in A major, starting at measure 5. The key signature has two sharps (F# and C#) and the time signature is common time (C). The melody consists of the following notes: B4 (quarter), C#5 (quarter), B4 (quarter), A4 (half), B4 (quarter), C#5 (quarter), B4 (quarter), A4 (half). Above the staff, the chord progression is labeled as IIm7 (Bm7), V7 (E7), V+ (E+), and I (A).

HARMONY

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Speaker icon

Piano

I
A

II
Bm

Musical score for piano, measures 1-4. The key signature is three sharps (F#, C#, G#). The time signature is common time (C). The melody is written in the treble clef, and the accompaniment is in the bass clef. Above the first measure, the Roman numeral 'I' and chord 'A' are indicated. Above the second measure, the Roman numeral 'II' and chord 'Bm' are indicated.

5

IIIm7
Bm7

V7
E7

V+
E+

I
A

Musical score for piano, measures 5-8. The key signature is three sharps (F#, C#, G#). The time signature is common time (C). The melody is written in the treble clef, and the accompaniment is in the bass clef. Above the first measure, the Roman numerals 'IIIm7' and chord 'Bm7' are indicated. Above the second measure, the Roman numerals 'V7' and chord 'E7' are indicated. Above the third measure, the Roman numerals 'V+' and chord 'E+' are indicated. Above the fourth measure, the Roman numeral 'I' and chord 'A' are indicated.

RHYTHM

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- If the result is considered satisfactory, we then go on to the next element of music: the Rhythm. So, we introduce a rhythmic pattern in the chords.
- Next, 3 possible options are presented:
- Rhythm 1, which is “syncopated”.
- Rhythm 2, which is “arpeggiated”.
- Rhythm 3, which is a combination of the previous two.
- Logically, it is possible to implement many different rhythms.

RHYTHM

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Rhythm 1



Piano

I A II Bm

5 IIIm7 Bm7 V7 E7 V+ E+ I A

RHYTHM

18

Rhythm 2



Piano

I
A

II
Bm

IIIm7
Bm7

V7
E7

V+
E+

I
A

5

RHYTHM

19

Rhythm 3



Piano

I
A

II
Bm

IIIm7
Bm7

V7
E7

V+
E+

I
A

5

SECOND 8 BAR PHRASE

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- We can create a second phrase similar to the first one, but carrying out some variations.
- In the melodic aspect, it is possible to vary the motives by introducing appoggiaturas, suspensions and other embellishing tones. For example, when composing the second phrase, some motives have been changed by appoggiaturas, as can be seen in the next figure (bars 12, 14 and 16).
- With respect to the rhythmic pattern, we chose the **Rhythm 1**. From now on, only the chords will be shown and not the full rhythmic pattern.

SECOND 8 BAR PHRASE

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Rhythm 1



Chord symbols for Rhythm 1:

- Bar 1: I (A)
- Bar 2: IIm (Bm)
- Bar 3: V7 (E7)
- Bar 4: V+ (E+)
- Bar 5: I (A)
- Bar 6: IIm7 (Bm7)
- Bar 7: V7/II (F#7)
- Bar 8: IIm7 (Bm7)
- Bar 9: VII^o (G#^o)
- Bar 10: I (A)
- Bar 11: IIm (Bm)
- Bar 12: V7 (E7)
- Bar 13: I (A)

SECOND 8 BAR PHRASE

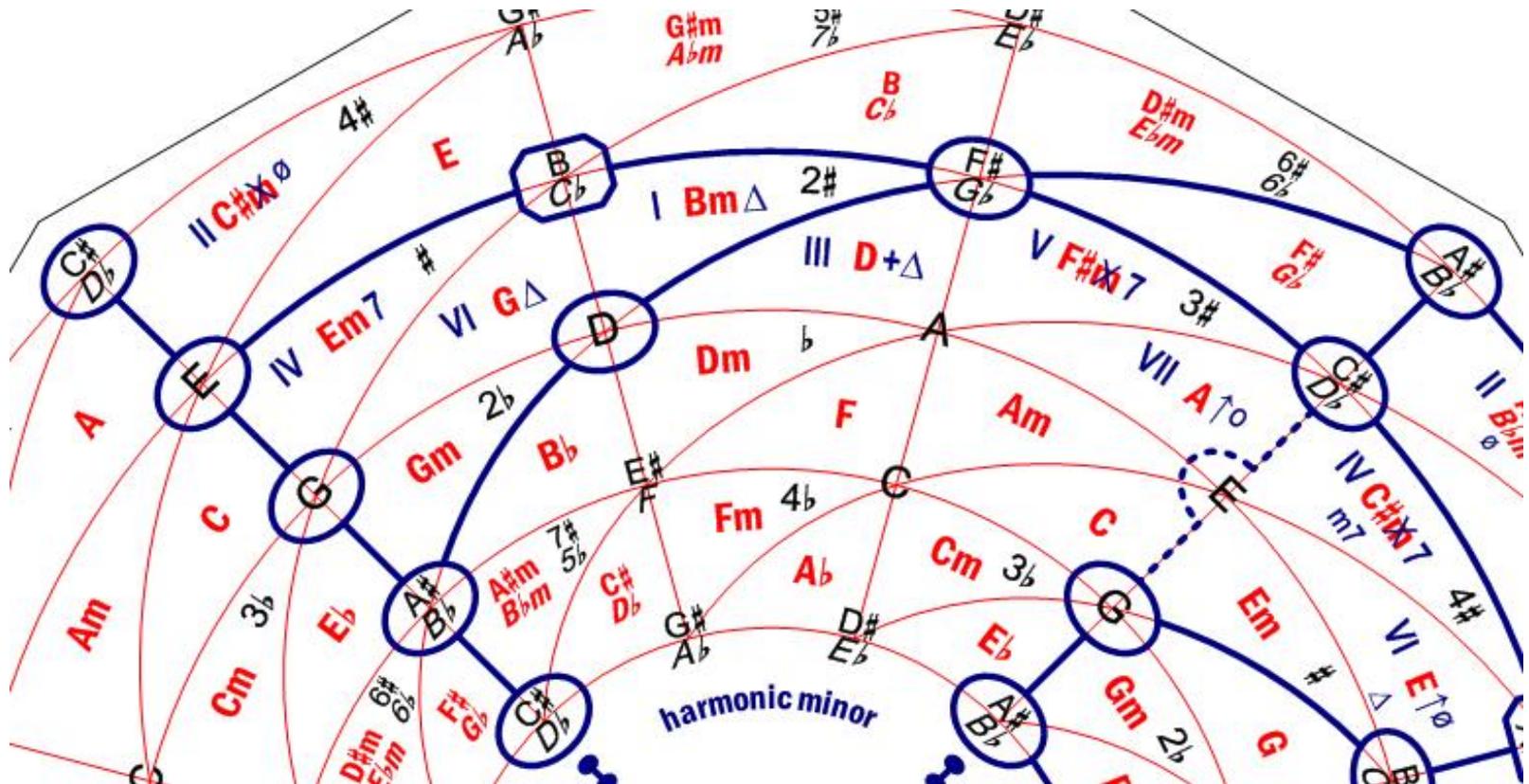
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- Regarding the harmony, two new chords have been introduced, which are:
- The chord $F\sharp 7$, which is the $V7$ of the II degree, that is, Bm (or $Bm7$), which is indicated by $V7/II$. This means that, provisionally, we consider the Bm chord as a tonic chord (I degree) and just before it we put its corresponding dominant chord.
- The chord $G\sharp^{\circ}$. This is the nearest diminished chord to the A Major key, since 3 of its 4 notes belong to this key.

SECOND 8 BAR PHRASE

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- Let us check that chord $F\#7$ is the $V7$ of Bm :



THIRD AND FOURTH PHRASES

- Next, we are going to add 16 other bars to the previous ones, in order to complete the first part of 32 bars.
- To do that, we can add two other 8 bar phrases by repeating the melodic and harmonic structure of the first 16 bars. In the next figure, we see a possible result.
- Logically, the composition of a work can be as complex as desired. Here, a simple example is shown.

THIRD AND FOURTH PHRASES

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Rhythm 1



Chord progression for Rhythm 1 (measures 17-32):

- Measures 17-18: I (A)
- Measures 19-20: IIm (Bm)
- Measures 21-22: IIm7 (Bm7)
- Measures 23-24: V7 (E7)
- Measures 25-26: V+ (E+)
- Measures 27-28: I (A)
- Measures 29-30: I (A)
- Measures 31-32: VII° (G#°)

Chord progression for Rhythm 2 (measures 33-38):

- Measures 33-34: I (A)
- Measures 35-36: V7/II (F#7)
- Measures 37-38: IIm7 (Bm7)

Chord progression for Rhythm 3 (measures 39-44):

- Measures 39-40: VII° (G#°)
- Measures 41-42: I (A)
- Measures 43-44: IIm (Bm)
- Measures 45-46: V7 (E7)
- Measures 47-48: I (A)

SECOND PART: MINOR MODE

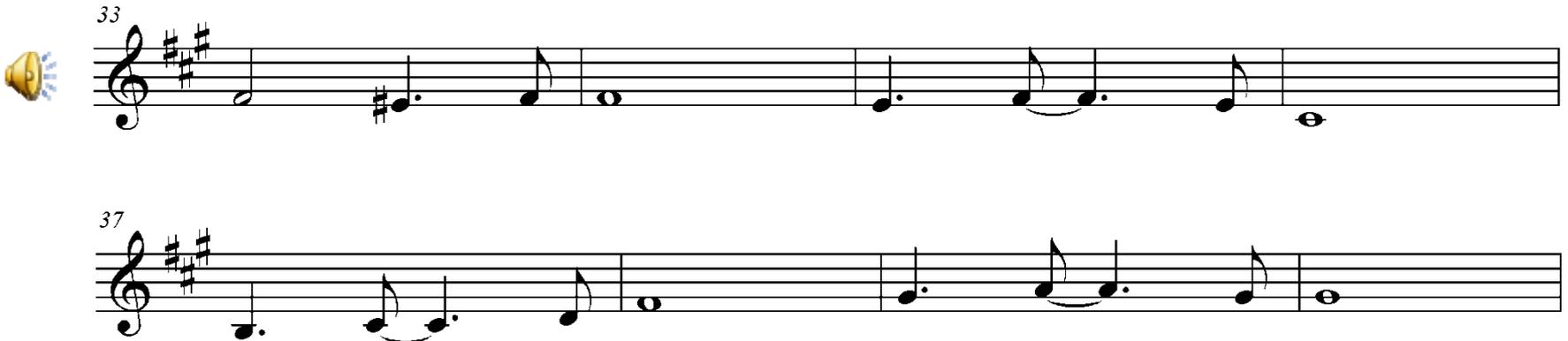
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- To complete the composition, we shall add 32 other bars, now in the key of F# minor, which is the relative of A Major.
- To move to a new key, it is necessary to introduce some chords that perform the transition from the first key to the second one. This process is called **Modulation**.
- As the new key is very affine to the first one, we can only use the chords Im V7 Im in the new key.

SECOND PART: MINOR MODE

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- Regarding the melody, we will begin with an 8 bar phrase, using similar motives to those in the first part.



The image shows two staves of musical notation in treble clef with a key signature of two sharps (F# and C#). The first staff is labeled with the number 33 and begins with a yellow speaker icon. The melody consists of the following notes: F#4 (quarter), G#4 (quarter), A4 (quarter), B4 (quarter), A4-G#4 (beamed eighth notes), F#4 (quarter), E4 (quarter), and D4 (half). The second staff is labeled with the number 37 and continues the melody with the following notes: C#4 (quarter), B4 (quarter), A4 (quarter), G#4 (quarter), F#4 (quarter), E4 (quarter), D4 (quarter), and C#4 (half).

- In order to harmonize, we will use the Harmonic Wheel. We select, for example, the F# harmonic minor scale.

SECOND PART: MINOR MODE

30

- Now, the 7 basic chords to harmonize are:

II G# \emptyset

IV Bm7 I F#m Δ V C#7

VI D Δ III A+ Δ VII E# \circ

- It is also possible to use these chords without the 7th, that is, 3 note chords or triads.
- As previously indicated, we will begin with the chords Im V7 Im, that is, F#m C#7 F#m, to move to the new key.

SECOND PART: MINOR MODE

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- When harmonizing, let us remember that long notes in the melody must not be a half step above the chord notes, except if we are dealing with the V7 chord or if we want to create strong dissonances.
- Example of a harmonization using the **Rhythm 2**:

33

Im F#m V7 C#7 Im F#m V7/III E7 III A V7 C#7

37

IVm Bm Im F#m V7/V G#7 V7 C#7

SECOND PART: MINOR MODE

32

- Apart from the chords belonging to the F# harmonic minor scale, we have used the following:
- A, taken from the F# natural minor scale, preceded by its V7, that is, E7. Take into account that, in a minor mode, it is common practice to combine the natural, harmonic and melodic scales.
- G#7, which is the dominant of C#7, that is, the V7/V.
- The dominant seventh chords corresponding to any degree except I, are called **secondary dominants**.

SECOND PART: MINOR MODE

- We can add 3 other 8 bar phrases with identical melodic and harmonic structures to the previous ones, by only varying the motives. This way, we complete the second part of 32 bars.
- The only point to take into account, is that the last phrase should end with the tonic chord and preferably preceded by its V7.
- In the next two figures we can see the full second part, obtained by keeping to this procedure.

SECOND PART: MINOR MODE

34

Rhythm 2



33

Im F#m V7 C#7 Im F#m V7/III E7 III A V7 C#7

37

IVm Bm Im F#m V7/V G#7 V7 C#7

41

Im F#m V7 C#7 Im F#m V7/III E7 III A V7 C#7

45

IVm Bm Im F#m V7/V G#7 V7 C#7

SECOND PART: MINOR MODE

35

Rhythm 2



49

Im F#m V7 C#7 Im F#m V7/III E7 III A V7 C#7

53

IVm Bm Im F#m V7/V G#7 V7 C#7

57

Im F#m V7 C#7 Im F#m V7/III E7 III A V7 C#7

61

IVm Bm Im F#m V7/V G#7 V7 C#7 Im F#m

THE FULL COMPOSITION

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- Now, we can hear the full composition:



- In this website (www.harmonicwheel.com) you may download the following files:
 - ▣ Score with the *Melody* and the *Chords*
 - ▣ Score for Piano (Rhythms 1 and 2)
 - ▣ Score for Guitar (Rhythm 3)
- A performance of this piece can be seen in www.youtube.com, by searching “harmonicwheel”.