

Original

# Técnicas Composicionais Pós-Tonais

0 1 2 3 4 5 6 7 8 9 10 11

# A música Pós-Tonal

Richard Wagner – Tristão e Isolda





# A música Pós-Tonal

- **Reação aos excessos cromáticos**

- Impressionismo
- Escalas não diatônicas
- Estrutura de acordes
- Paralelismo
- Pandiatonicismo

- **Extensão do ultracromatismo Wagneriano**

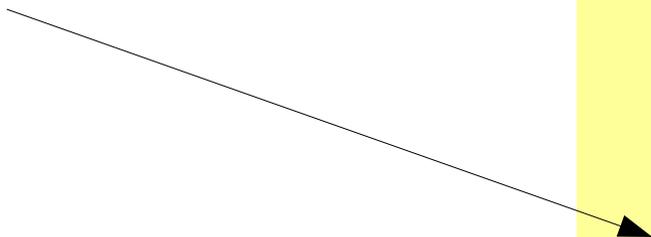
- Teoria dos conjuntos
- Dodecafonismo
- Serialização total

- **Outros caminhos**

- Música aleatória
- Música eletroacústica

# A música Pós-Tonal

- **Extensão do ultracromatismo Wagneriano**
  - Teoria dos conjuntos
  - **Dodecafonismo**
  - Serialização total

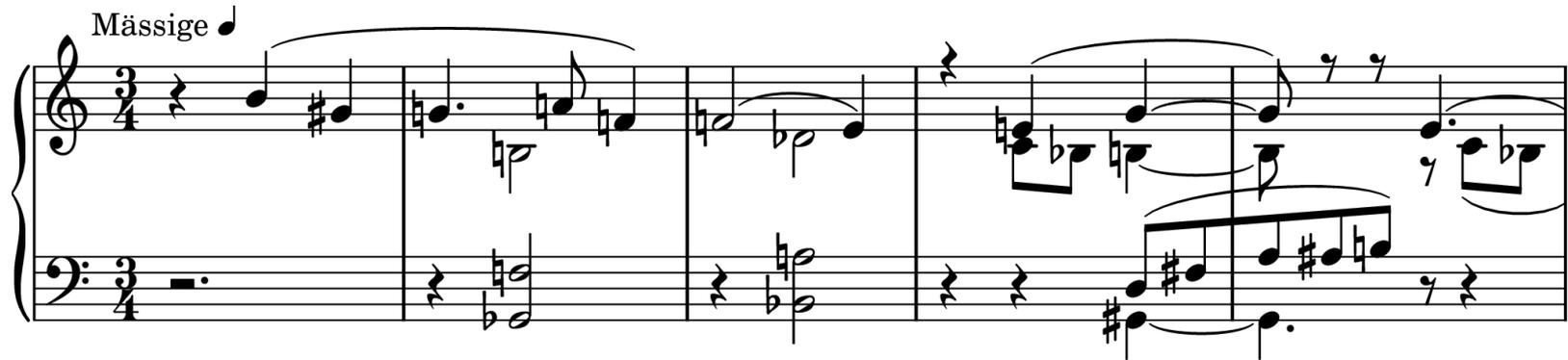




# Schoenberg

## Three Piano Pieces Op.11, N° 1

Mässige 



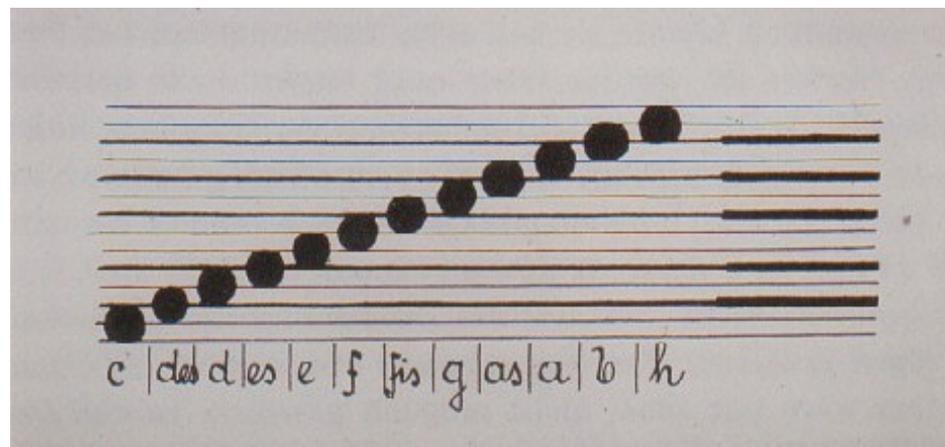
6



# Composição com as 12 notas

Josef Matthias Hauer (Áustria)

19 de Março de 1883 – 22 de Setembro de 1959)



# Composição com as 12 notas

Arnold Schoenberg (Áustria – EUA)

13 de Setembro de 1874 – 13 de Julho de 1951



# Composição Pós-Tonal

- Evitar a oitava, seja como um componente melódico ou intervalo harmônico;
- Evitar os conjuntos de notas tradicionais, ou seja, qualquer um que possa sugerir uma tríade maior ou menor e até mesmo uma tônica;
- Evitar mais do que três notas sucessivas que possam ser identificadas com uma mesma escala diatônica;
- Uso de melodias extremamente disjuntas e com uma tessitura bem larga.

# Schoenberg

## Three Piano Pieces Op.11, N° 1

Mässige 



The image shows a musical score for Schoenberg's Three Piano Pieces Op. 11, No. 1. The score is in 3/4 time and consists of two systems of staves. The first system has four measures, and the second system has five measures. The music is written for piano and features complex harmonic structures with many accidentals and ties. The tempo is marked 'Mässige' (Moderate). The key signature is one flat (B-flat). The score is written in a modern, atonal style characteristic of Schoenberg's early work.

# Composição com as 12 notas

- Uma composição dodecafônica deve ser baseada num arranjo ou série de doze notas que é determinada pelo compositor. Esta é chamada de série dodecafônica.
- Nenhuma nota deve ser repetida até que todas as outras notas da série tenham sido ouvidas.

Existe uma exceção à essa restrição: uma nota pode ser repetida imediatamente após ter sido ouvida. Repetição também pode ocorrer no contexto de um trinado ou uma figura de trêmolo.

- A série dodecafônica pode, dentro dos limites do sistema, ser usada legitimamente em ordem reversa (retrógrado), inversão (espelhamento de cada intervalo) ou em inversão retrógrada (ordem reversa da forma espelhada).

# Composição Dodecafônica

Notas são transformadas em números

Diagram illustrating the transformation of notes into numbers (0-11) across two staves. The top staff (treble clef) shows notes 0 through 11, with notes 1, 3, 6, 8, and 10 highlighted in boxes. The bottom staff (bass clef) shows notes 0 through 11, with notes 1, 3, 6, 8, and 10 highlighted in boxes. This illustrates the concept of enharmonic equivalence (e.g., D# = E).

Equivalência enarmônica (dó sustenido é igual à ré bemol)

Equivalência de oitava (não importa a oitava, a classe de nota será a mesma)

Diagram illustrating the concept of octave equivalence. The notes are numbered 0 through 11, showing that notes in different octaves (e.g., 0 and 7) are considered equivalent in terms of their pitch class.

# Composição Dodecafônica

## Exemplos de séries dodecafônicas

Ross Lee Finney – *All Alone, 24 invenções para piano, N° 14*

A musical staff in treble clef with a common time signature (C). It displays a dodecaphonic series of twelve notes: G4, A4, G4, F4, E4, D4, C4, B3, A3, G3, F3, E3. Below the staff, the corresponding fret numbers for a guitar are listed: 9, 10, 8, 7, 5, 6, 3, 4, 0, 1, 11, 2.

Anton Webern – *Sinfonia Op. 21*

A musical staff in treble clef with a common time signature (C). It displays a dodecaphonic series of twelve notes: G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4, B3. Below the staff, the corresponding fret numbers for a guitar are listed: 9, 6, 7, 8, 4, 5, 11, 10, 2, 1, 0, 3.

Alban Berg – *Concerto para Violino*

A musical staff in treble clef with a common time signature (C). It displays a dodecaphonic series of twelve notes: G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4, B3. Below the staff, the corresponding fret numbers for a guitar are listed: 7, 10, 2, 6, 9, 0, 4, 8, 11, 1, 3, 5.

Hugo Ribeiro – *Apocalypse*

A musical staff in treble clef with a common time signature (C). It displays a dodecaphonic series of twelve notes: G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4, B3. Below the staff, the corresponding fret numbers for a guitar are listed: 0, 4, 2, 7, 3, 5, 11, 9, 1, 8, 10, 6.

# Composição Dodecafônica

## Exemplos de séries dodecafônicas

Hugo Ribeiro – *Apocalipse*

0 4 2 7 3 5 11 9 1 8 10 6

Inversão da série



Série e suas transposições

0	4	2	7	3	5	11	9	1	8	10	6
8	0	10	3	11	1	7	5	9	4	6	2
10	2	0	5	1	3	9	7	11	6	8	4
5	9	7	0	8	10	4	2	6	1	3	11
9	1	11	4	0	2	8	6	10	5	7	3
7	11	9	2	10	0	6	4	8	3	5	1
1	5	3	8	4	6	0	10	2	9	11	7
3	7	5	10	6	8	2	0	4	1	1	9
11	3	1	6	2	4	10	8	0	7	9	5
4	8	6	11	7	9	3	1	5	0	2	10
2	6	4	9	5	7	1	11	3	10	0	8
6	10	8	1	9	11	5	3	7	2	4	0

Retrógrado



Retrógrado da inversão

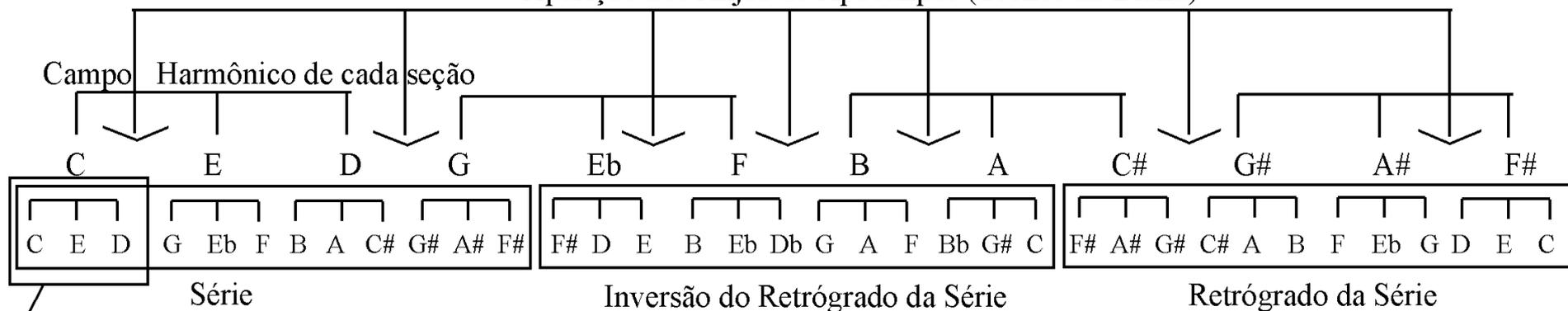
# Composição Dodecafônica

## Exemplos de séries dodecafônicas

Hugo Ribeiro – *Apocalipse*

0 4 2 7 3 5 11 9 1 8 10 6

### Aparição dos Anjos do Apocalipse (trechos da Bíblia)



Motivo presente no campo harmônico de Dó

# Ross Lee Finey

## All Alone

(24 invenções para piano, N° 14)

Sadly ♩ = 108

First system of the musical score for 'All Alone'. It consists of two staves (treble and bass clef) in common time. The piece begins with a piano (*p*) dynamic. The melody in the treble clef features a series of descending notes with some chromaticism. The bass clef provides a harmonic accompaniment. A crescendo hairpin is shown over the middle of the system, leading to a mezzo-piano (*mp*) dynamic.

Second system of the musical score, starting at measure 7. The treble clef staff contains chords and rests, while the bass clef staff continues the melodic line. A piano (*p*) dynamic is indicated. The system concludes with a double bar line.

Série original

A single staff of music showing the original series of notes: G<sup>9</sup>, A<sup>10</sup>, B<sup>8</sup>, C<sup>7</sup>, D<sup>5</sup>, E<sup>6</sup>, F<sup>3</sup>, G<sup>4</sup>, A<sup>0</sup>, B<sup>1</sup>, C<sup>11</sup>, D<sup>2</sup>.

Retrógrado da Série

A single staff of music showing the retrograde series of notes: D<sup>2</sup>, C<sup>11</sup>, B<sup>1</sup>, A<sup>0</sup>, G<sup>4</sup>, F<sup>3</sup>, E<sup>6</sup>, D<sup>5</sup>, C<sup>7</sup>, B<sup>8</sup>, A<sup>10</sup>, G<sup>9</sup>.

Série em acordes

A single staff of music showing the series in chords. The notes are grouped into two sets of parentheses: (2 3 5 4) and (11 12 10) in the treble clef, and (6 7 9 8) in the bass clef.

# Ross Lee Finney

## All Alone

(24 invenções para piano, N° 14)

Série original

9 10 8 7 5 6 3 4 0 1 11 2

Série transposta para Dó

0 1 11 10 8 9 6 7 3 4 2 5

Original: 9 10 8 7 5 6 3 4 0 1 11 2

MD

9 10 8 7 5 6 3 4 0 1 11 2  
8 9 7 6 4 5 2 3 11 0 10 1  
10 11 9 8 6 7 4 5 1 2 0 3  
11 0 10 9 7 8 5 6 2 3 1 4  
1 2 0 11 9 10 7 8 4 5 3 6  
0 1 11 10 8 9 6 7 3 4 2 5  
3 4 2 1 11 0 9 10 6 7 5 8  
2 3 1 0 10 11 8 9 5 6 4 7  
6 7 5 4 2 3 0 1 9 10 8 11  
5 6 4 3 1 2 11 0 8 9 7 10  
7 8 6 5 3 4 1 2 10 11 9 0  
4 5 3 2 0 1 10 11 7 8 6 9

Original: 0 1 11 10 8 9 6 7 3 4 2 5

MD

0 1 11 10 8 9 6 7 3 4 2 5  
11 0 10 9 7 8 5 6 2 3 1 4  
1 2 0 11 9 10 7 8 4 5 3 6  
2 3 1 0 10 11 8 9 5 6 4 7  
4 5 3 2 0 1 10 11 7 8 6 9  
3 4 2 1 11 0 9 10 6 7 5 8  
6 7 5 4 2 3 0 1 9 10 8 11  
5 6 4 3 1 2 11 0 8 9 7 10  
9 10 8 7 5 6 3 4 0 1 11 2  
8 9 7 6 4 5 2 3 11 0 10 1  
10 11 9 8 6 7 4 5 1 2 0 3  
7 8 6 5 3 4 1 2 10 11 9 0

# Ernest Krenek, *The Moon Rises*, Twelve short piano pieces

Adagio ♩ = 42

Musical score for measures 1-6. The piece is in 3/4 time with a key signature of two flats (B-flat and E-flat). The tempo is Adagio, with a quarter note equal to 42 beats per minute. The score is written for piano in grand staff notation. Measure 1 starts with a piano (*pp*) dynamic. Measure 2 features a crescendo leading to a piano (*p*) dynamic. Measure 3 begins with a piano (*pp*) dynamic. Measure 4 has a crescendo leading to a piano (*p*) dynamic. Measure 5 starts with a piano (*pp*) dynamic. Measure 6 ends with a piano (*p*) dynamic.

Musical score for measures 7-11. Measure 7 begins with a piano (*p*) dynamic. Measure 8 features a piano (*pp*) dynamic. Measure 9 starts with a piano (*p*) dynamic. Measure 10 has a piano (*pp*) dynamic. Measure 11 ends with a piano (*p*) dynamic.

Musical score for measures 12-16. Measure 12 starts with a piano (*ppp*) dynamic. Measure 13 features a piano (*pp*) dynamic. Measure 14 has a piano (*ppp*) dynamic. Measure 15 includes an *8va* (octave up) marking above the treble clef. Measure 16 ends with a piano (*ppp*) dynamic.

Musical score for measures 17-20. Measure 17 starts with a piano (*pp*) dynamic. Measure 18 features a piano (*ppp*) dynamic. Measure 19 has a piano (*ppp*) dynamic. Measure 20 ends with a piano (*ppp*) dynamic.

Ernest Krenek, *The Moon Rises*, *Twelve short piano pieces*

Adagio ♩ = 42

A musical score for the beginning of 'The Moon Rises' by Ernest Krenek. The score is written for piano and consists of two staves. The tempo is marked 'Adagio' with a quarter note equal to 42 beats. The music begins with a piano (*pp*) dynamic. The left hand plays a series of chords and single notes, while the right hand plays a more complex melodic line with some grace notes. The dynamics fluctuate between *pp* and *p*.

Série original

A musical notation for the original series, consisting of a single staff with a treble clef. The series is a sequence of 12 notes: Bb, B, C, D, Eb, E, F, G, Ab, A, Bb, B. The notes are written as half notes, with a repeat sign at the end.

Série transposta para dó

A musical notation for the transposed series, consisting of a single staff with a treble clef. The series is a sequence of 12 notes: C, D, Eb, E, F, G, Ab, A, Bb, B, C, D. The notes are written as half notes, with a repeat sign at the end.