Introduction to Flamenco music

José-Miguel Díaz-Báñez
Universidad de Sevilla
What is flamenco?
What is flamenco?

• Many new to flamenco typically ask, "What is flamenco?"

• Rather than trying to define flamenco, the intention here is to describe some of its most characteristic features.

• Flamenco is a traditional Andalusian art form passed down orally from one generation to the next.
What is flamenco?

• The most basic element of flamenco is the voice.

• Contrary to what many foreigners believe, dance is not the motor that drives flamenco.

• Guitar and dance are rooted in flamenco singing.
What is flamenco?

- The foundations are in the singing voice.

- Improvisation and spontaneity play a central role.

- The musical structure derives in every case from song.
Flamenco. A brief intro.

- Flamenco music has developed by coalescence of several music traditions.

- Apart from the influences of the Jews and Arabs, flamenco music shows the imprint of the culture of the Andalusian Gypsies.
Forms of flamenco expression.

- **Toque**  
  Flamenco guitar.
- **Cante**  
  Flamenco Singing.
- **Baile**  
  Flamenco Dance.
- **Palos**  
  Flamenco music styles are called palos. There are 32 styles and over 750 different variants.
Flamenco palos
Flamenco. A brief intro.

• In the flamenco jargon, singing is called *cante*, and songs are termed *cantes*.

• Main general features:
  ✓ **Instability of pitch. Portamentì.**
  ✓ **Sudden changes in volume.**
  ✓ **Short pitch range or tessitura.**
  ✓ **Timbre.** Breathiness in the voice and absence of high frequency formant.
Flamenco. A brief intro.

- Oral tradition. Voice is an essential element.
- Uses intervals smaller than the half-tone.
- Not strict with tuning. Melismatic.
Musical characteristics.

Harmony.

• Apart from minor and mayor, Flamenco has also preserved the Phrygian mode, called Greek Dorian mode, and sometimes also "flamenco mode".

• Based on the Phrygian scale, a typical cadence is formed, usually called "Andalusian cadence". The chords for this cadence are Am–G–F–E.
Musical characteristics.

Melody.

• Melodic improvisation. Based on traditional songs. Singers add variations on the spur of the moment.

• Apparent lack of regular rhythm. Melodic rhythm of the sung line is different from the metric rhythm of the accompaniment.

• Baroque ornamentation.
Musical characteristics. Compás.

• *Compás* is the flamenco word for *meter* or *rhythm*.

• When performing flamenco it is important to feel the compás rather than mechanically count the beats.

• Flamenco uses three basic counts or measures: Binary, Ternary and the twelve-beat cycle (combination binary-ternary).
Tango
1 2 3 4 - 5 6 7 8
4/4

Fandango
1 2 3 - 4 5 6 - 7 8 9 - 10 11 12
3/4

Soleá
1 2 3 - 4 5 6 - 7 8 - 9 10 - 11 12
6/8 + 3/4
Fandango, Sevillanas, etc.

1 2 3 - 4 5 6 - 7 8 9 - 10 11 12

Soleá, Alegrías, etc.

1 2 3 - 4 5 6 - 7 8 - 9 10 - 11 12

Soleá por Bulería

1 2 3 - 4 5 6 - 7 8 - 9 10 - 11 12
Fandango
Soleá
Bulería
Seguiriya
Guajira
A rhythmic game: maintain the silence

Soleá  Bulería
A rhythmic game: maintain the silence

1 2 3 4 5 6 7 8 9 10 11 12  (start at 12)
soleá

1 2 3 4 5 6 7 8 9 10 11 12  (start at 12)
soleá por bulería
• Classification is not yet clearly established in the flamenco literature.
El árbol genealógico del Cante

Las ramas principales son:
- Granainas
- Medias Granainas
- Alora
- Teba
- Malagueñas
- Torra
- Vélez
- Lámaras
- Cartageneras
- Murcianas
- Fandangos de Cabra
- Fandangos de Lucena
- Fandangos de Almería
- Cantes de Importación
- Guitarras
- Pixaros
- El Carretil
- Sevillanas
- Valsecas
- Fandanguillos
- Seguidilla de Aros
- Rosas
- Potencias
- Nrases
- Alogos
- Álora
- Almería
- Campanillos
- Bambusa
- Tanguillos
- Trilera
- Serrana
- Arriales
- Campanillas
- Estilos Campesinos
- Tonas
- Canas
- Bullera
- Liviana
- Temporera
- Cantas Autóctonos
- Al Ajarafe
- La Solea
- Tiempos
- El Pino
- Salón
- Lleguiriya

A la sombra de la Sierra,
del Colmenar al amparo,
para sentirse tributo al árbol
que por los siglos creciera
en flancos rocosos y campos.

Félix de Izaguirre

Cátedra, 2002
Based on rhythmic pattern

 ✓ Palos with a **Tango** rhythm (**Tiento**)  
   Rhythms in 2/4 or 4/4.

 ✓ **Seguiríya** Palos.  
   
   \[
   1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7 \ 8 \ 9 \ 10 \ 11 \ 12
   \]

 ✓ Palos based on the **Soleá** rhythm (**Bulería**). 12-beat rhythms, 6/8 + 3/4.

 ✓ Palos derived from **Fandango**.  
MELODIC REPRESENTATION

• So far, flamenco music has been transmitted and preserved through oral tradition.

• Western notation has been proved fruitless for a cappella cantes.

• Automatic Melodic Transcription with audios recordings.
THE COFLA PROJECT: COMPUTATIONAL ANALYSIS OF FLAMENCO MUSIC

- A group of researchers from different disciplines.
- Mathematicians, engineers, computer scientists, musicologists, flamenco experts.
- Scientific study of flamenco music.
- Multidisciplinary study.
COFLA PROBLEMS. INTERDISCIPLINARY RESEARCH

• SIMILARY MEASURES.
• AUTOMATIC TRANSCRIPTION.
• PATTERN RECOGNITION.
• ORNAMENTATION.
• VOICE SEPARATION.
• MUSICAL PREFERENCE.
• QUERY BY HUMMING.
• CLASSIFICATION…
Similarity & style classification

José-Miguel Díaz-Báñez  Emilia Gómez
Universidad de Sevilla   Universitat Pompeu Fabra
OPEN PROBLEM: CLASSIFICATION OF STYLES

• Classification is not yet clearly established in the flamenco literature.
CHALLENGE: SIMILARITY MEASURES.

- Similarity based on:
  - Compás.
  - Melody.
  - Musical features.
  - Combination.
CHALLENGE: CLUSTERING ALGORITHMS

- SplitTree
CHALLENGE: CLUSTERING ALGORITHMS

- Graph algorithms
THE PROBLEM: MELODIC SIMILARITY IN FLAMENCO

Debla: "En el barrio de Triana"
Antonio Mairena

Modo frigio-andaluz

Trans.: J.M.R.

Muy calante
THE PROBLEM: MELODIC SIMILARITY
IN FLAMENCO

Debla: "En el barrio de Triana"
Chano Lobato

Trans.: J.M.R

modo frigio-andaluz
MINI-CONCERT

José-Miguel Díaz-Báñez, HILARIO JIMÉNEZ
Universidad de Sevilla
EL COMPÁS DE SEGUIRIYA

1 2 3 4 5 6 7 8 9 10 11 12
EL COMPÁS DE ALEGRÍA

1 2 3 4 5 6 7 8 9 10 11 12

Soleá  Bulería
EL COMPÁS DE FANDANGO, SEVILLANAS

1 2 3 4 5 6 7 8 9 10 11 12