

# IRRINTZI. ACOUSTIC CHARACTERISTIQUES

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## **Abstract:**

*Irrintzi: According to “Vocabulario Navarro” of Jose M<sup>o</sup> Iribarren an irrintzi is an howling scream, mixing sound between yell and loud laugh, let out by the people who live in the mountains.*

A very high-pitched and loud sound is perceived, with fast fluctuations between /a/ and /i/ that ends in a long /i/, more acute and stable with variations depending on the taste of each irrintzilari. The purpose of this study is to investigate perceptual and acoustic characteristics of Irrintzi.

The subjects for this study were 12 females in age from 50 and 70 years. Each Irrintzilari provide between 1 and 4 samples.

The voice samples are been register in a Apple G4 computer and analyzed with Sound Scope 2 Program with a microphone Logitech model ,placed at 1.5 m distance.

Vocal loudness was controlled with a Iso-Tech SLM- 1352A Sonometer located at 1 m.

The acoustic analysis included mean FO, minimal and maximal, and average and maximum Energy.

There has been realized a narrow band Spectrography 45 Hz, FFT 1.024, with a range between 50-20.000 Hz for the analysis of the harmonics and formants.

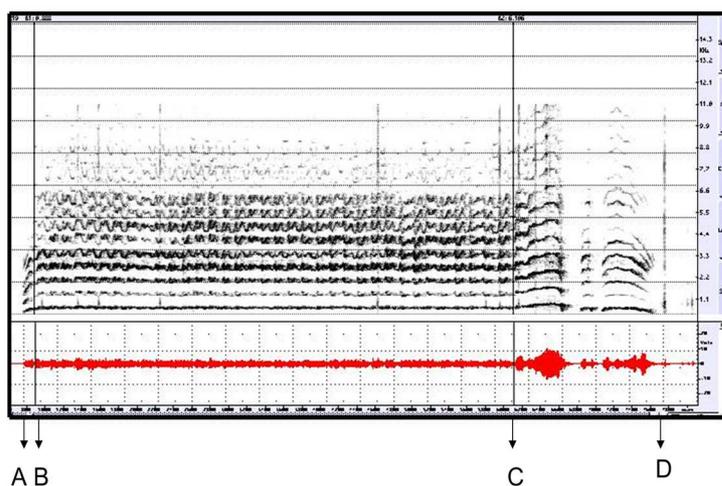
The narrow band spectrography shows in nearly all cases a typical fluctuation on the tracing of the harmonics; it resembles the graphical symbol of the letter M.

We have difine three parts:

First segment or Attack characterized by a rapid ascent of Fo (A-B)

Second segment or Body characterized by the tracing of the harmonics (B-C)

Third segment or Final characterized by the descent of Fo and and increase of the acoustic Energy (C-D)



In this paper we will show the variation of acoustic parameters of Irrintzi that are shared by all irrintzilaris and the differences among them.