

# A Regional Study of Finger Flutings in 12 Paleolithic Caves

Leslie Van Gelder, Ph.D.

## Abstract

Finger flutings were lines drawn with fingers and hands in caves during the Upper Paleolithic (10-40,000 B.P.). They contain a wealth of forensic evidence about who created cave art. This study examined 12 caves in Northern Spain. Findings included new sites, presence of children, and new knowledge on social interaction.



## Problem

No regionalized study of Paleolithic finger flutings has ever been undertaken. Many theories exist as to the use of caves throughout the Paleolithic, however, they all rely on either excavation data, which is very limited, or theories of cave art which are based on stylistic interpretations. This study addresses the questions of who used the caves and why, by looking at the physical evidence left behind by finger fluters. These help to answer large scale questions about the use of caves, and human culture and evolution during a thirty-thousand year period.

## Purpose

To identify the **locations of finger flutings** in all Cantabrian Caves. This aspect included identification of sites and the photographic cataloging of fluted panels for current and future researchers. (Very few of these caves are open to the public).

This included analysis of data: looking at numbers of individuals involved, number of panels created, and caves in which stylistic approaches show similarities.

## Relevant Literature

The study of parietal art asks questions focused on trying to understand individuals, communities, and meaning systems of people of the Upper Paleolithic in relation to evidence they left behind. Past theories have focused on **Hunting Magic** (Breuil), **Structuralist Analyses of Signs and Symbols** (Leroi-Gourhan, Laming-Emperaire) and **Shamanism** (Lewis-Williams, Clottes).

The advent of a **Forensic Approach** (Bednarik; Sharpe & Van Gelder) has led to the development of a methodology which yields direct evidence about who the people were who made the flutings. This approach coincides with recent interest in childhood (Nowell, Van Gelder & Cooney) and issues of adolescence and gender (Guthrie).



## Research Questions

In which Cantabrian Caves are finger flutings found?  
Who were the individuals who fluted each of the caves?

What does the composition of the fluted panels say about the social interaction of fluters? (Is fluting an individual activity or a social activity?)

How do the caves across the region show similarities and differences with regard to flutings found within them?

## Procedures

**12 caves** were identified for study through a thorough search of the literature and consultation with local authorities and cave guides.

Within each cave, flutings were found, identified, photographed, measured for height from the floor, width of panel, and duration.

Individual lines were measured and analyzed to establish identification of individuals, manner of construction, and relationship to figurative art within the cave.

## Data Analysis

A **full report of each cave** was prepared which involved a panel-by-panel analysis of the measurements which led to the identification of the unique individuals who created each panel, and an analysis of the superposition of the lines within the panel.

A **catalog of images** for each panel was created which gives a viewer a clear understanding of the construction of each panel so as to follow the paths of each fluter.

The caves were then **contrasted along the themes** of number of fluted panels, number of individuals fluting, and the presence of children. A further category included the potential to calcite date certain panels in the future to obtain better regional chronologies.

## Findings

10 of the 12 caves had finger flutings. Of them, two (El Castillo, El Juyo) had panels which have never before been identified in the literature.

**Children's flutings** were found in 2 of the 12 caves (El Castillo, Las Chimeneas). A child's footprints were found in conjunction with the flutings in El Castillo.

All panels in the caves were created by at least two individuals, even panels in difficult places to reach.

The maximum number of fluters in a cave was 7 (Las Chimeneas). The majority of the caves had only 2-4 individuals fluting.

## Limitations

Three other caves were identified as having flutings in the region, for conservation reasons we were not able to gain access to them to study them. Thus the study is not a full regional study.

Many of the flutings were in poor conservation which made them challenging to analyze.

## Conclusions

This study reveals that finger fluting was a social activity. Each panel, even those very difficult to reach, were done by at least two individuals. Each of the caves regionally held evidence of multiple fluters but in each case only a few people. Thus past theories which have focused on these sites being sanctuary and ritual sites for multiple people over millennia are likely untrue and the sites were probably visited only once. The presence of children raises interesting questions in that they were only present in two of the ten fluted caves but those two caves were the most physically accessible.

## Social Change Implications

Cave art **provides information** about humanity's origins and is a way of understanding our relationship to creativity, society, and the natural world. By shedding light on who the people of the Paleolithic were, and in what activities they engaged, we come closer to understanding aspects of our own humanity.



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