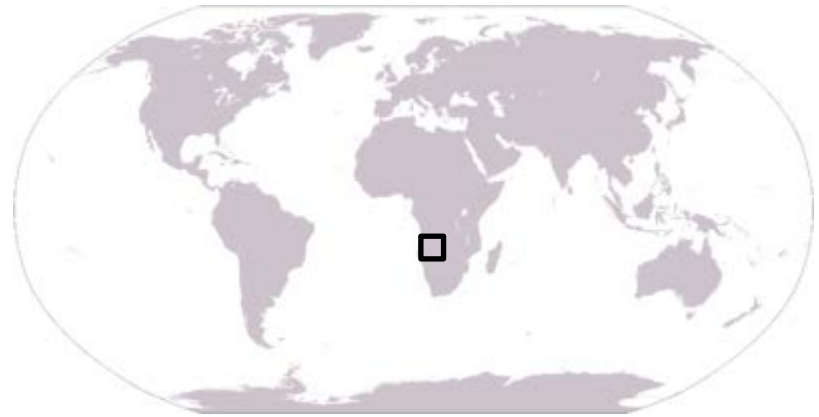


*A arte rupestre do abrigo de Ndalambiri*  
*The Rock Art from Ndalambiri's shelter*  
*Kwanza Sul*  
*Angola*

**Cristina Pombares Martins**

Investigadora associada do Grupo “Quaternário e  
Pré-Histórica” do Centro de Geociências  
(uID73 – Fundação para a Ciência e Tecnologia)  
Instituto Terra e Memória (Mação)  
Doutoranda em Quaternário, Materiais e Culturas (UTAD)  
Bolsista FCT (Projecto SFRH/BD/74567/2010)  
[crisaugst@gmail.com](mailto:crisaugst@gmail.com)





**ANGOLA**



Animal and vegetal biodiversity

Rich fluvial system

Majestic granite inselbergs

Painted rock shelters

Traditional knowledge - construction of houses, cropping system, hunting

Arts and crafts - pottery, basket, iron metallurgy

Stone tombs

Traditional power system – “Sobado” (lineage, rituals, rules, ...)

Rites - Initiation; “Alambamento” (engagement) and Marriage; death and funeral rites

System of belief and worship of ancestors

Myths and legends

Material evidence of the past

Linguistic diversity

## Ebo`s Cultural Landscape

















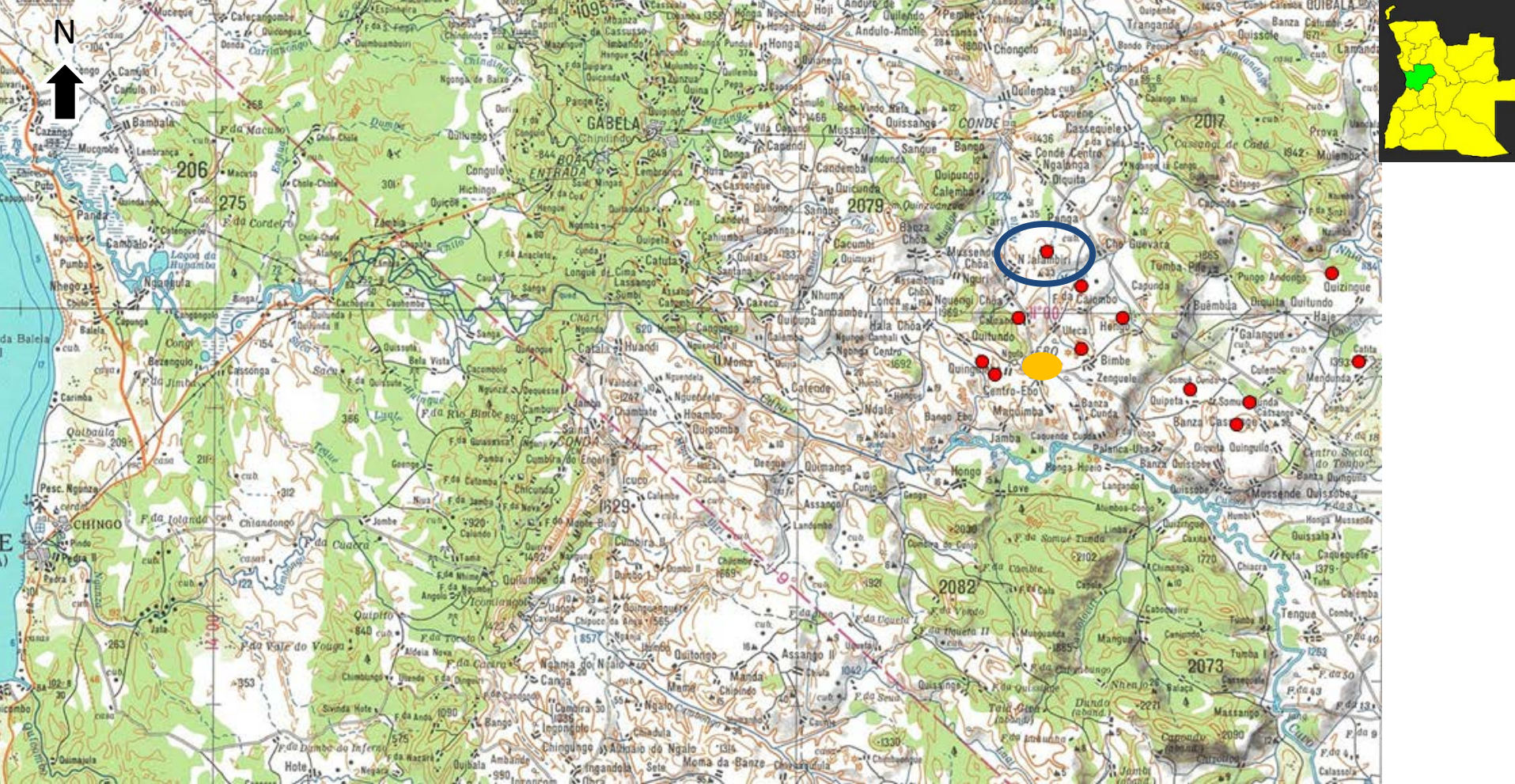












Instituto de Geodesia e Cartografia de Angola  
 Folha nº II – Sumbe  
 1: 500 000

- Ebo- Center
- Rock shelters with rock art localized

**Ndalambiri**





# History of Research in Ebo

Little information

No systematic study

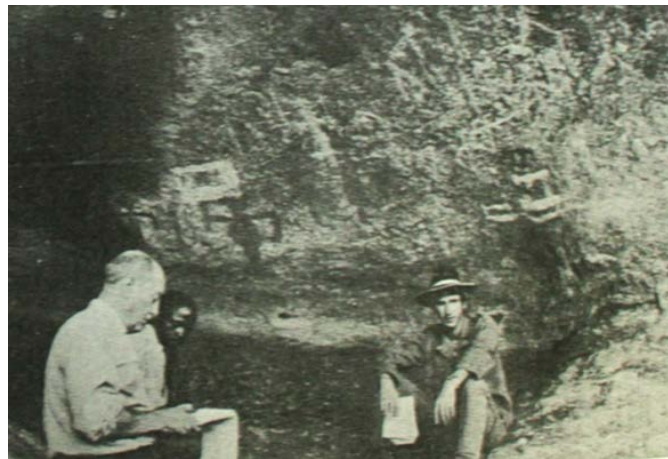
1971: Architect Fernando Batalha at the time responsible for Monuments of Angola, made a dig on Dalambiri's shelter

1972: Carlos Ervedosa and Santos Júnior made some notes about the shelters, paints, surface materials (pottery and lithic)

2012: 1st campaign ITM / IPT / INPC / MNAB



2012



Santos Júnior e  
Carlos Ervedosa, Caiombo.  
(Ervedosa, 1980)



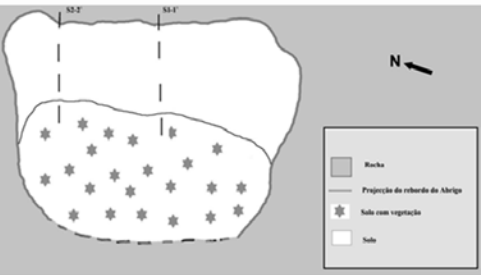
2012

Altitude: 1348 m  
 Orientation: West  
 Mouth of shelter: 33m  
 Painted strip: 61.4 m long  
 Total painted figures: 1198

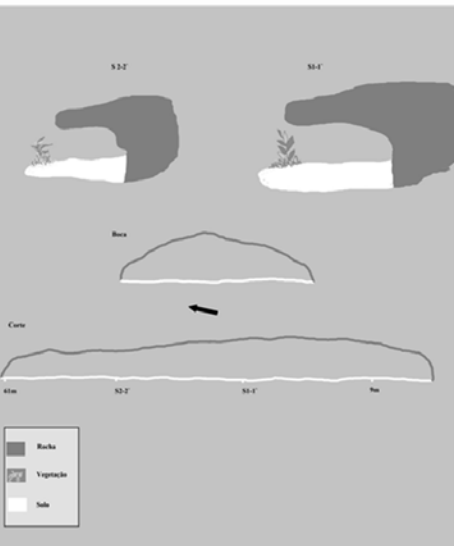


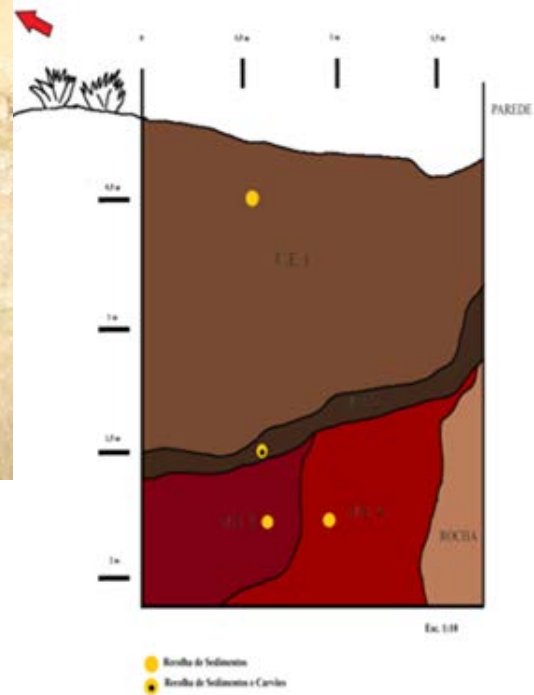
**ABRIGO DALAMBIRI**

**PLANTA**

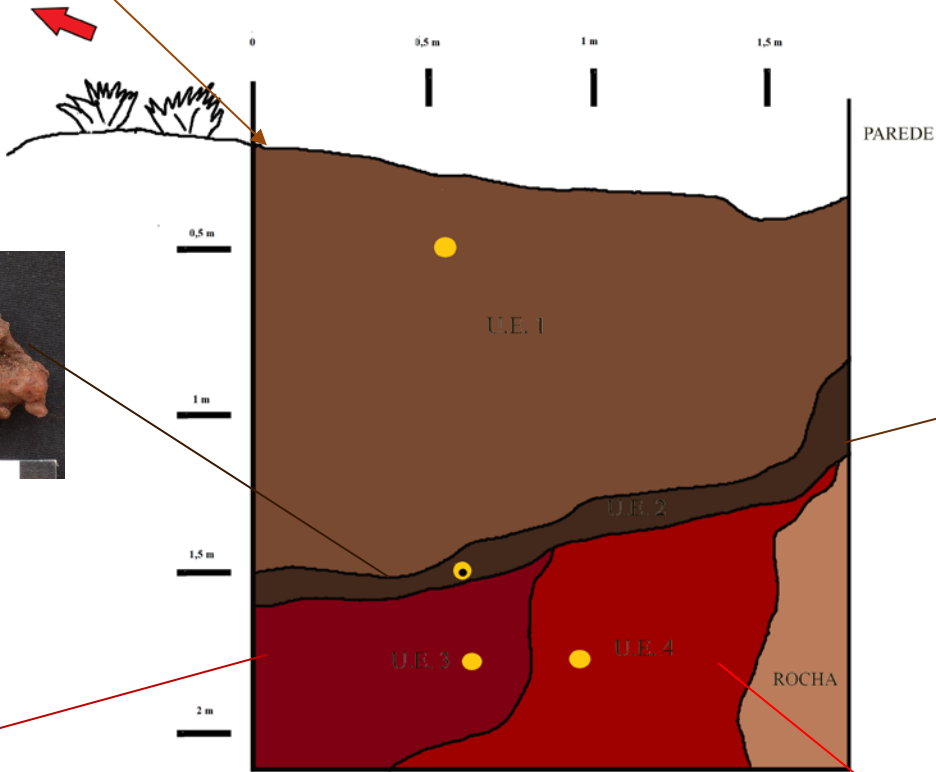


**CORTE E SEÇÕES**





“Refresh” of the 70s` dig



- Recolha de Sedimentos
- Recolha de Sedimentos e Carvões





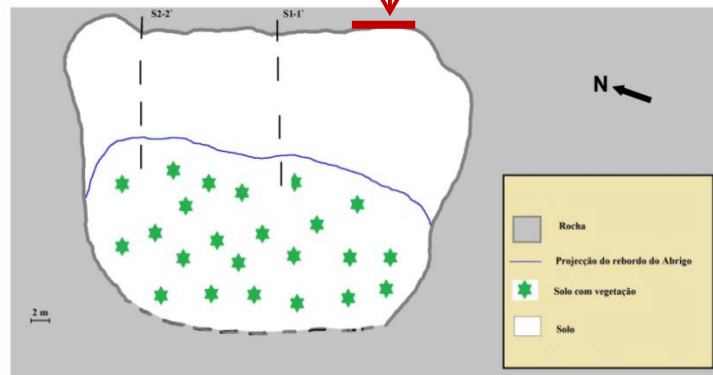
# Methodologie



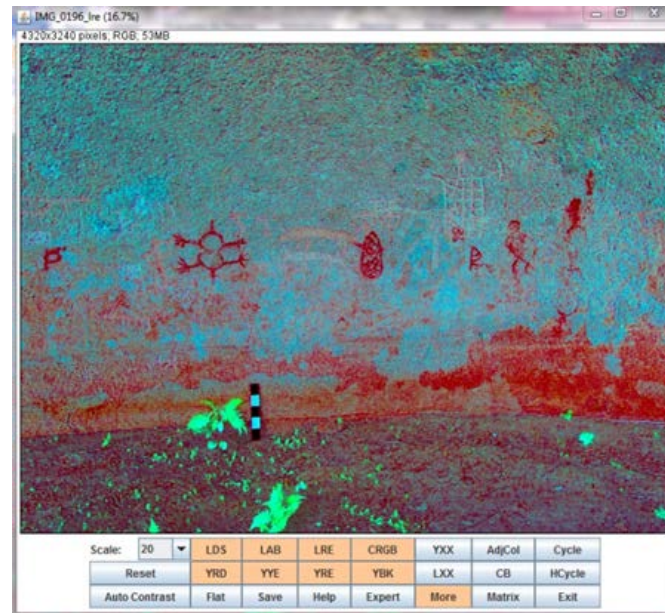
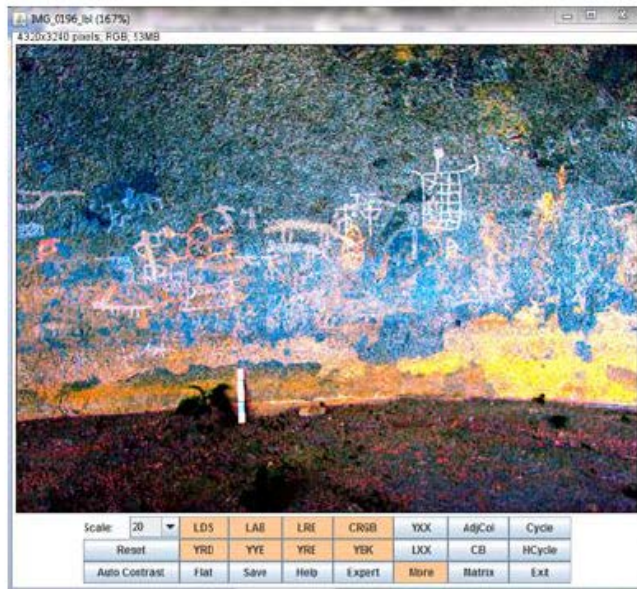
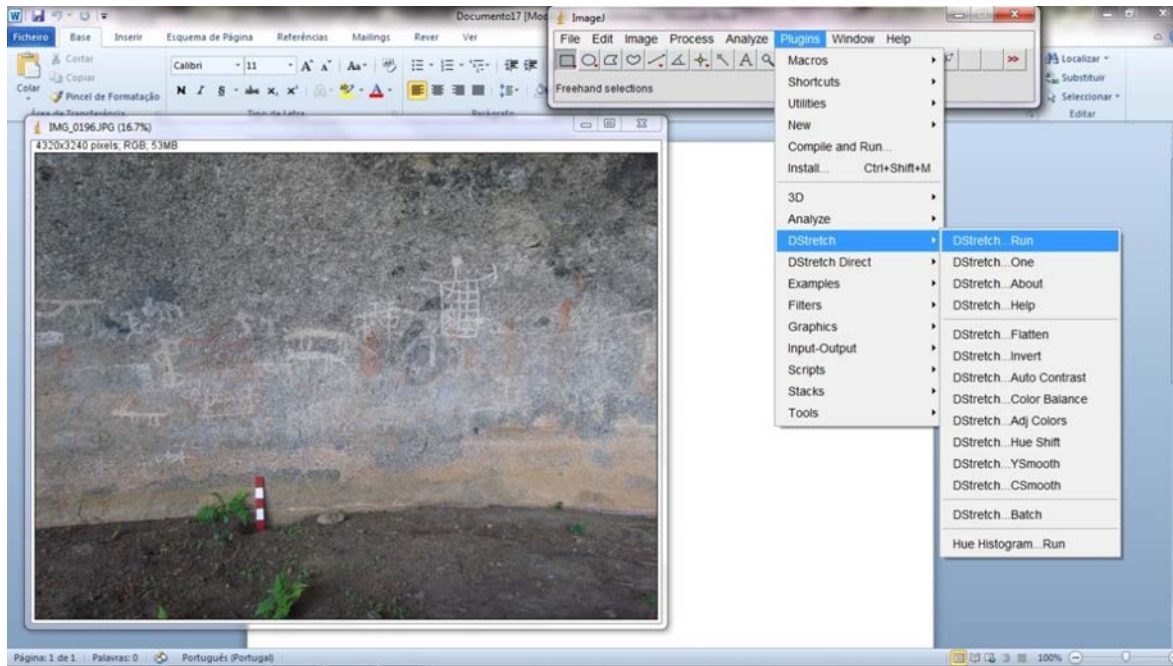


23m

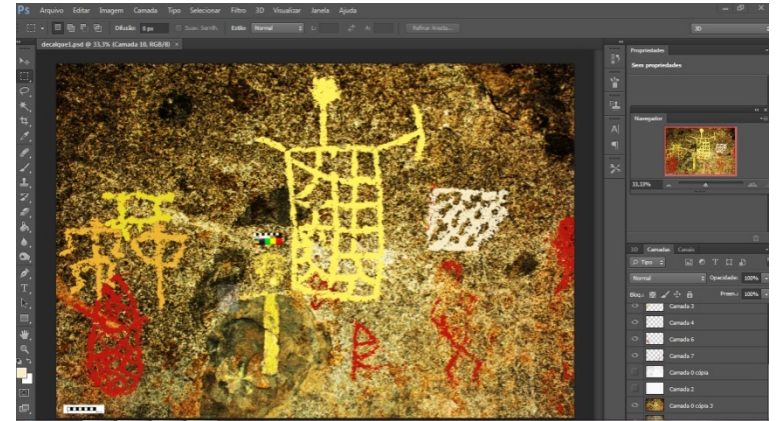
PLANTA

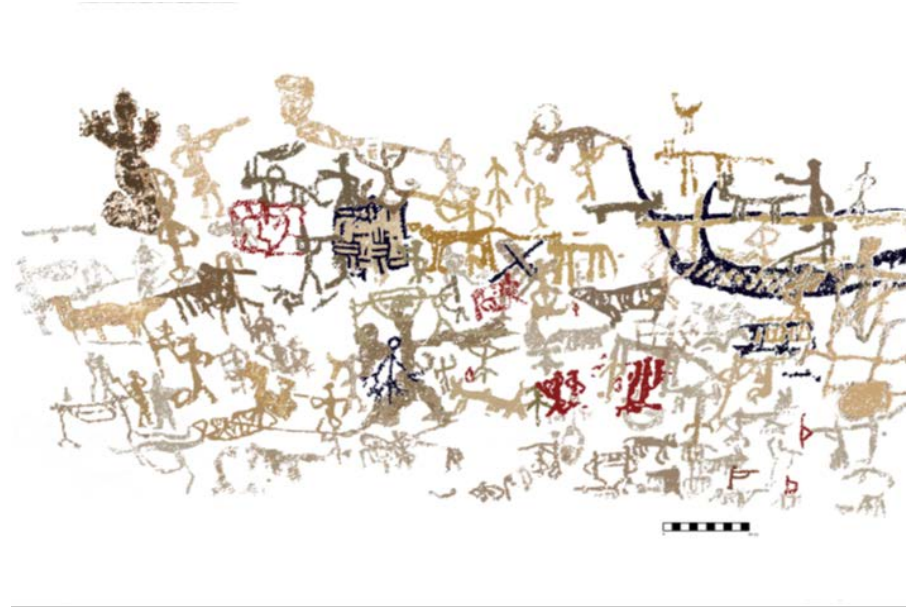
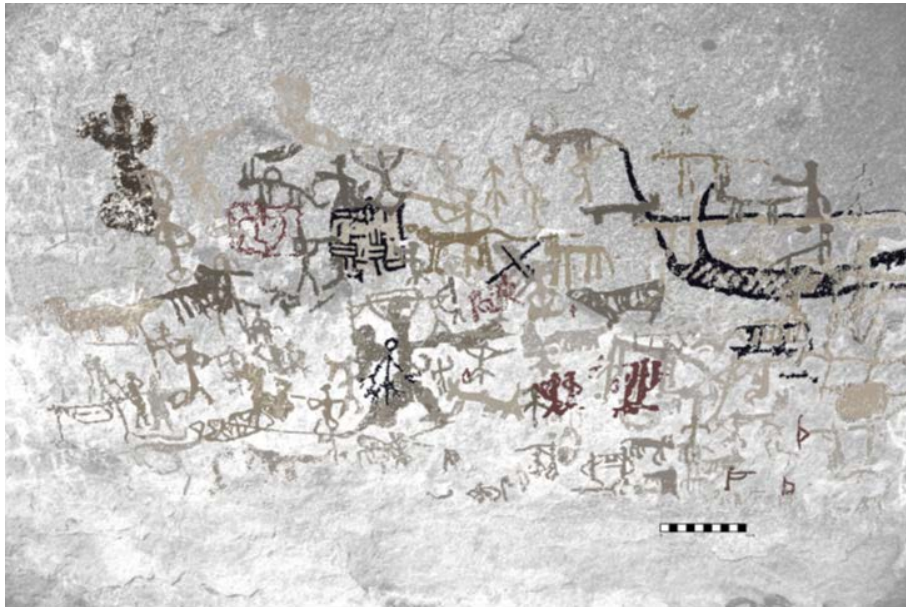
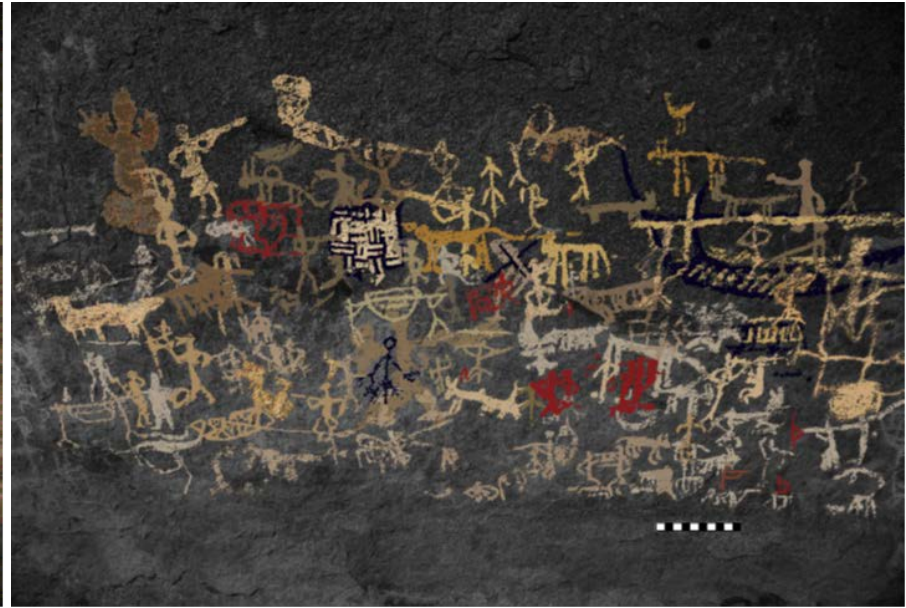


19m





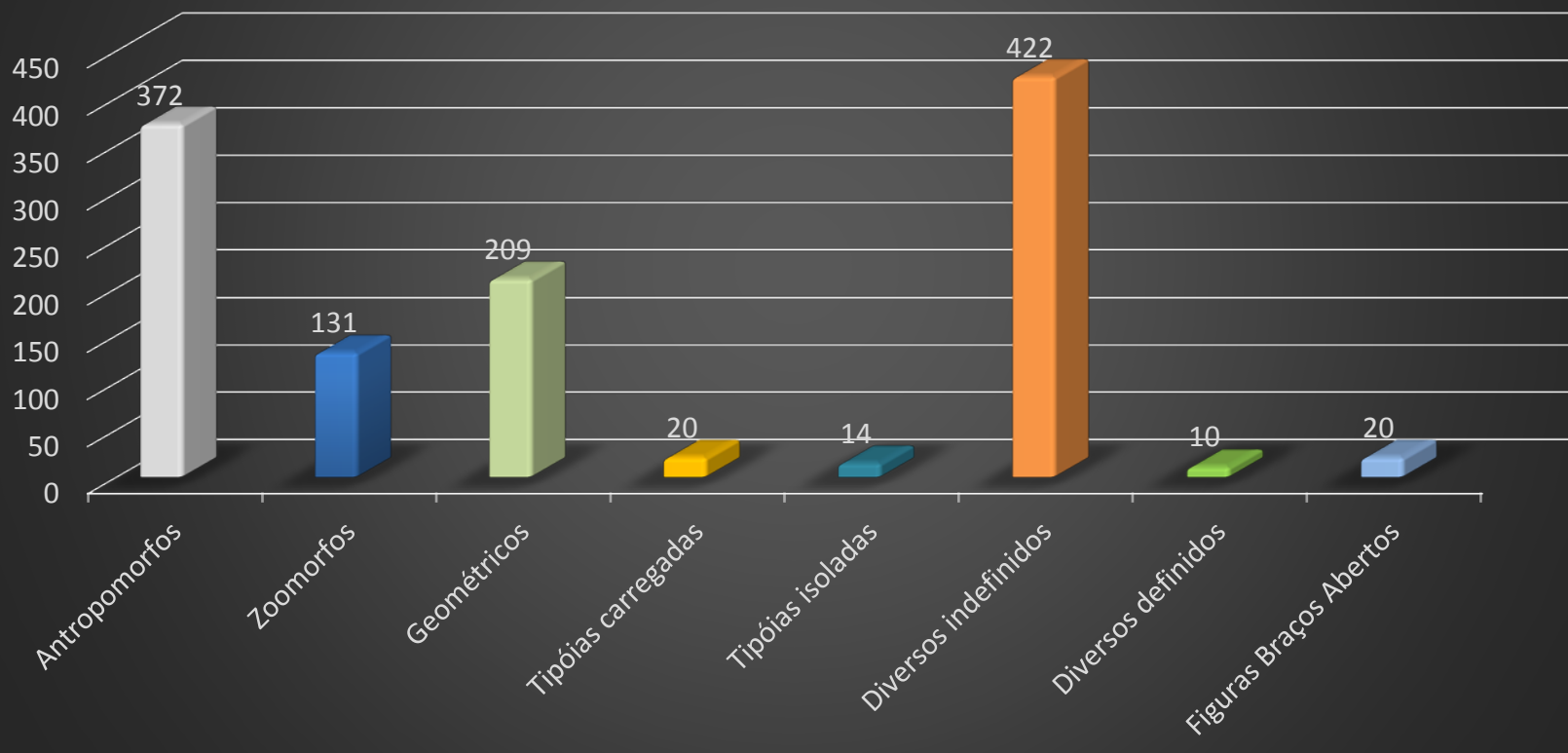




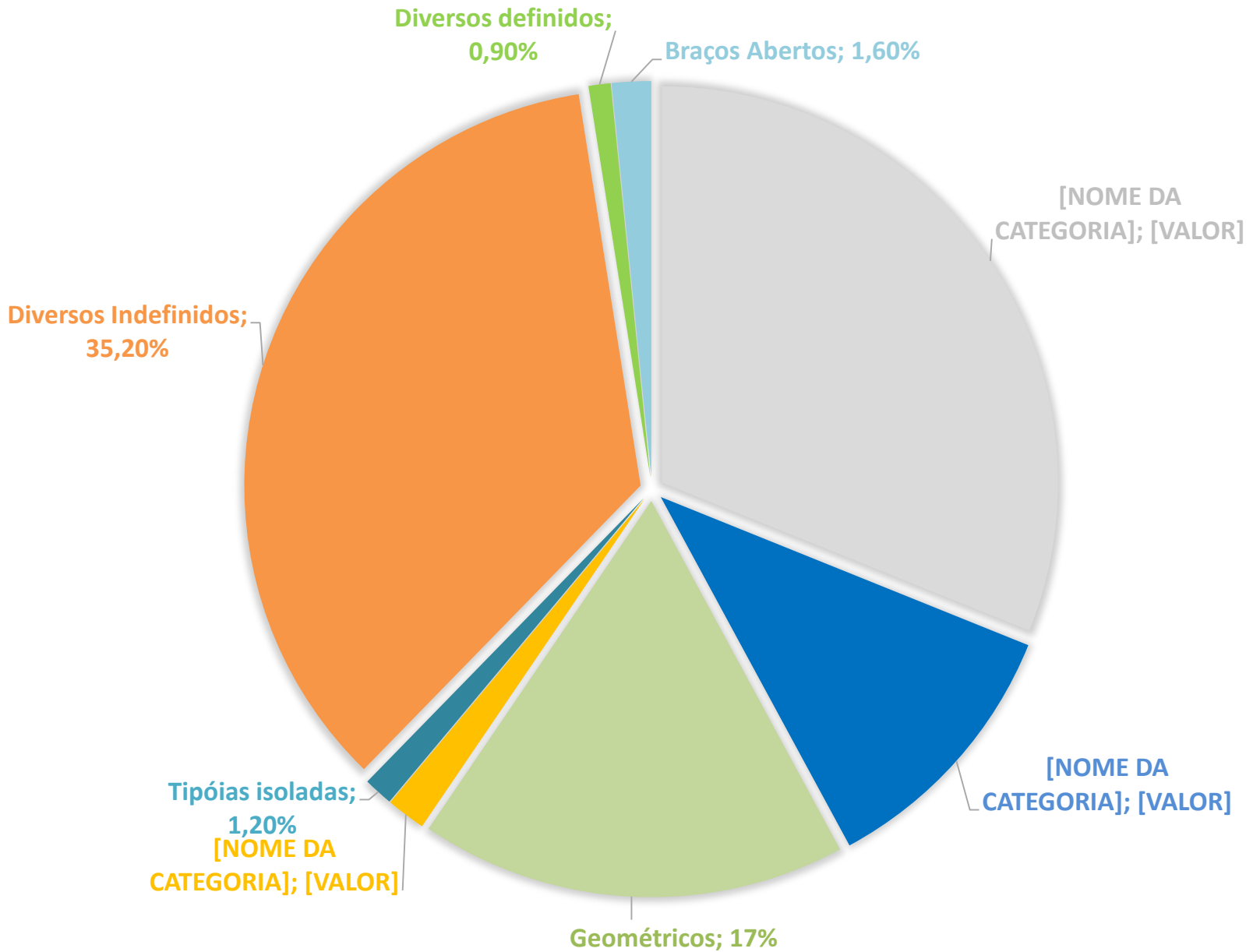


## Figuras – Tipologias

### Figures – Typologies



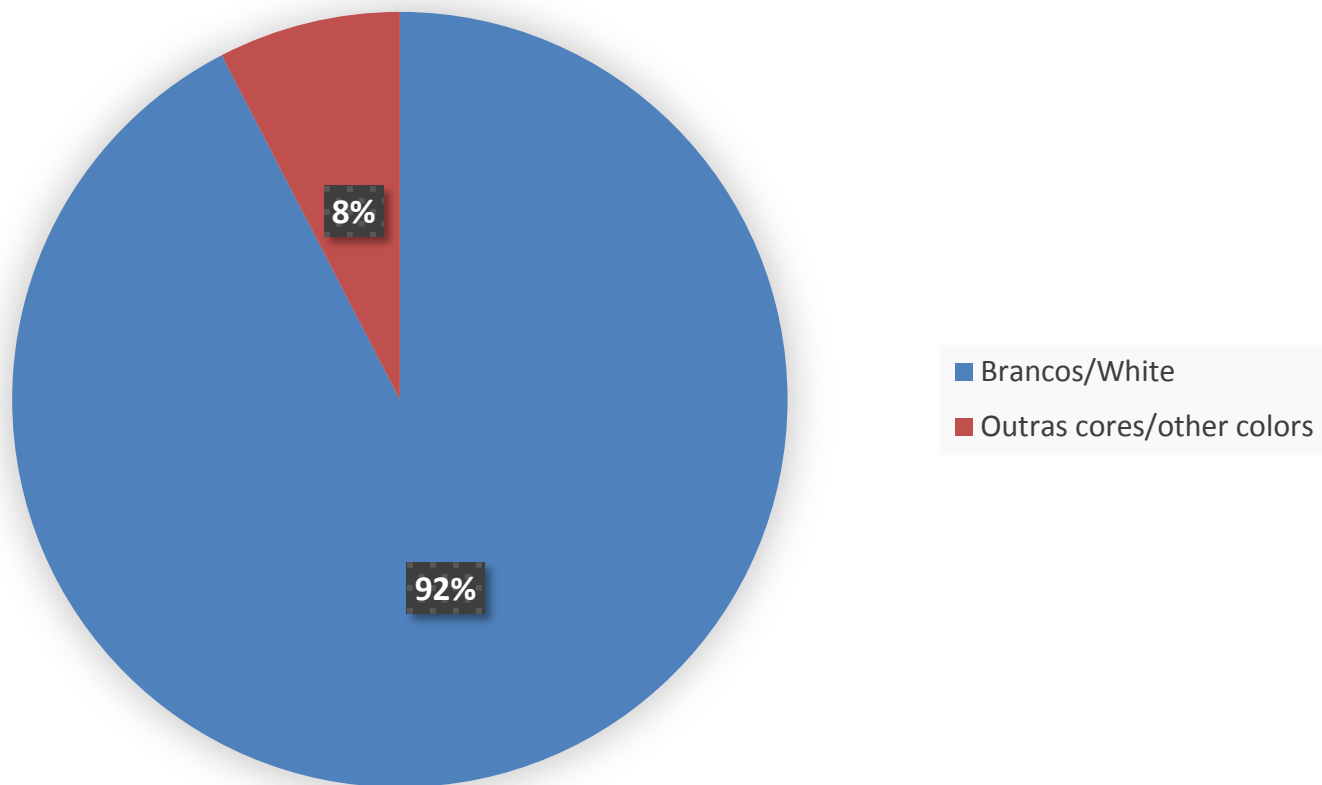
# Tipologias % Typologies





## Cores das Figuras - %

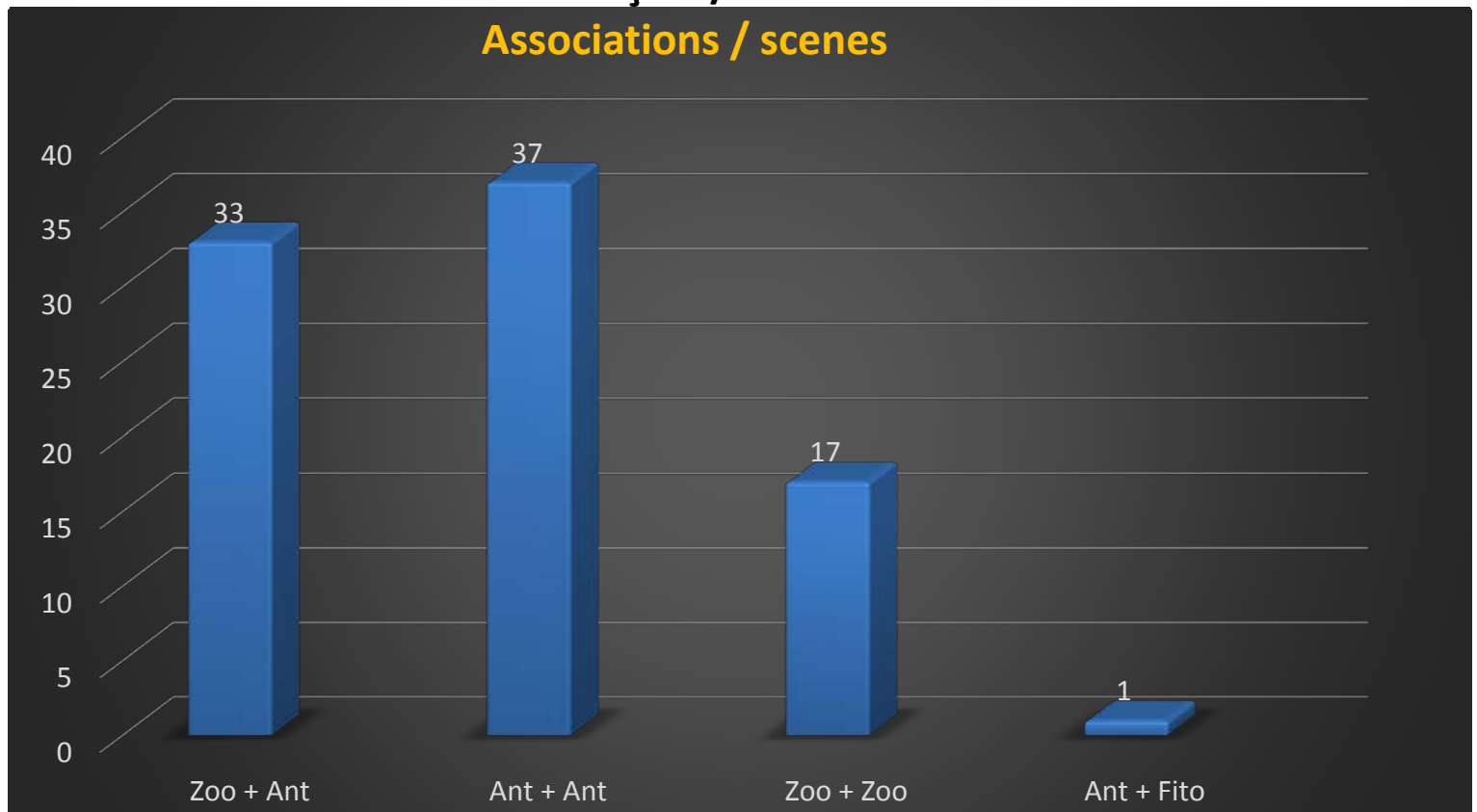
## Figures – colors -%

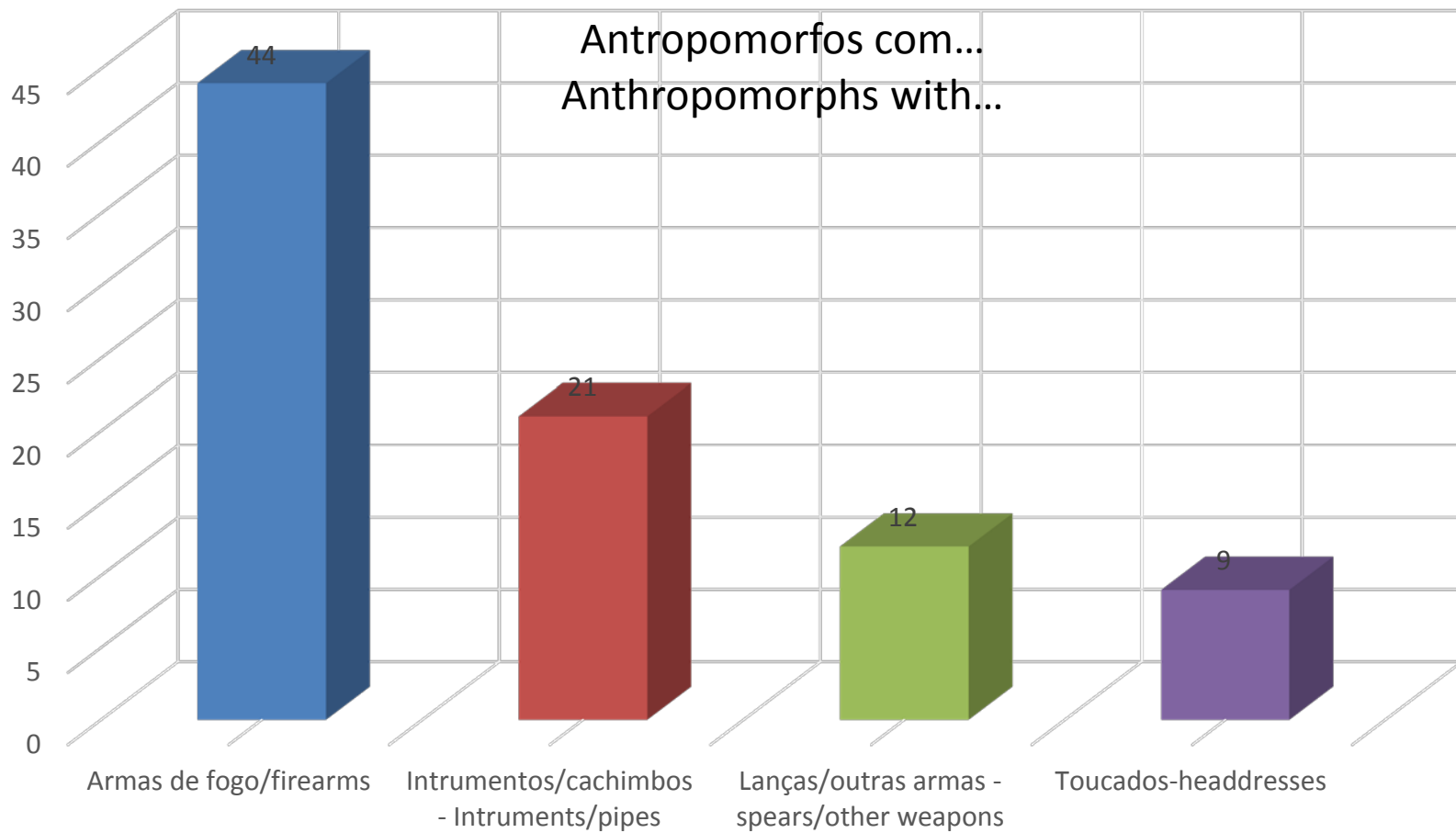




## Associações/Cenas

### Associations / scenes



















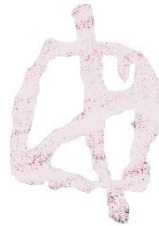


# Rock Paintings from Ebo

Phase I



Phase II



Phase III



Phase IV





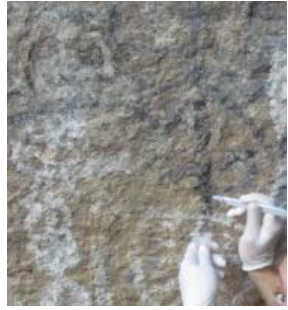
## Shelters vs phases

Abrigos	Fases			
	Fase I	Fase II	Fase III	Fase IV
Ndalambiri	X	X	X	X
Cumbira	X	X	X	X
Caiombo	X	X	X	X
Hungombo		X		
Quizolo		X	X	X
Lowanga		X		X
Matembo				X
Kionhuila1	X	X	X	X
Kionhuila2	X			X



# Pigments

A1



A2



A3














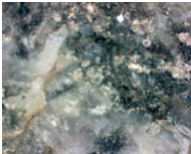





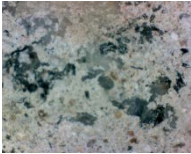
A1

A2

A3



# Pigments - Samples

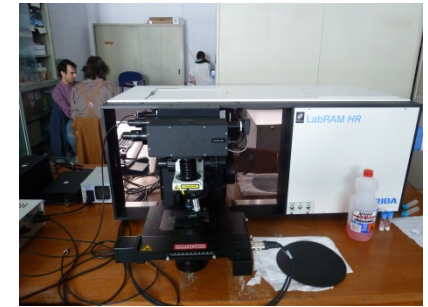
Sample Nº	Photo	Drawing	Figure	Dimensions	Color	Locarion(from the entry)	Micro Photo
1A 1B			Anthropomorph	31cm X 55cm	Black	to 56 m	
2A 2B			Zoomorph	80 cm X 40 cm	Red	to 55m	
3A 3B			Anthropomorph	40 cm X 20 cm	White	to 52 m	
4A			Zoomorph	30cm X 14 cm	Black	to 30m	
5A 5B			Line	177cm X 5cm	Yellow	to 31m	
6A 6B			Palanquin	16cm x 63 cm	White	to 30m	

## Lab work

Micro-Raman spectroscopy (Laboratory of Physics and Earth Sciences, University of Ferrara, Italy )



Chemical and mineralogical characterization of pigments



## Results

Sample 1 - black – charcoal

Sample 2 - Red - Hematite and quartz

Samples 3 and 6 – White – Calcite

Sample 4 - no pigment revealed, although the figure in black is marked on the support

Sample 5 - Yellow - revealed an organic substance not identified, so it is necessary to further study

Nº Amostra	Foto	Cor	Composição	Ampliação 40X	Espectro
1A 1B		Negro	Carvão		
2A 2B		Vermelho	Hematite e quartzo		
3A 3B		Branco	Calcite		
4A		Negro	Silicato-biotite		
5A 5B		Amarelo	CC-H		
6A 6B		Branco rosado	Calcite		
7	 (Suporte)		Biotite e quartzo		

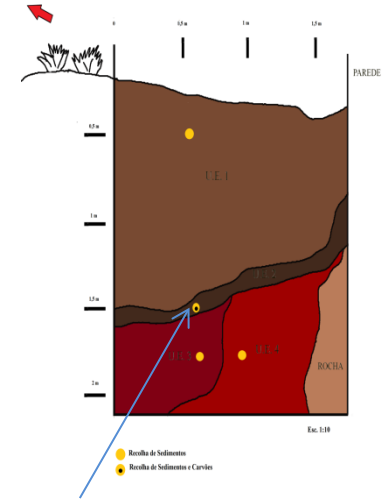
# Chronology

## Relative Chronology



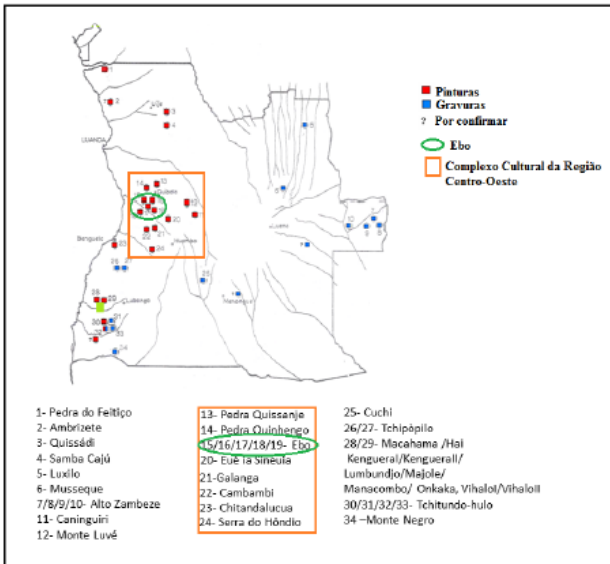
## Absolute Chronology

Black Pigment (charcoal):  
Cal AD 1680 - 1730  
(Cal BP 260 to 220)



Charcoal from survey  
(U.E.2): Cal AD 540 - 620  
(Cal BP 1410 to 1330)

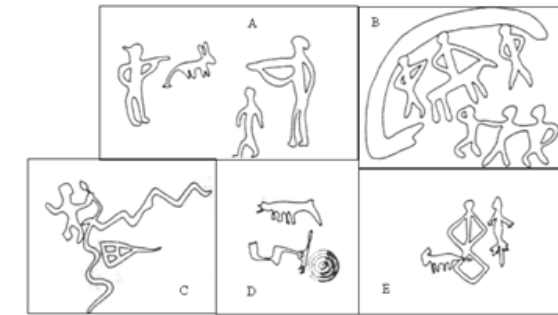
## Correlation with other sites in the central western area of Angola



Cambambi (Ervedosa,1980)

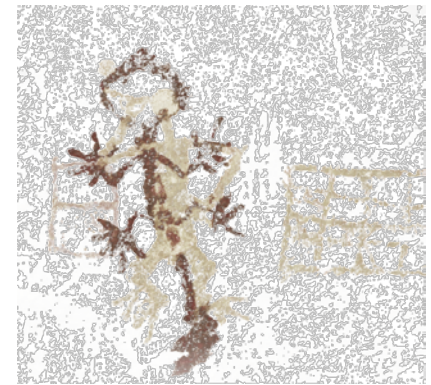
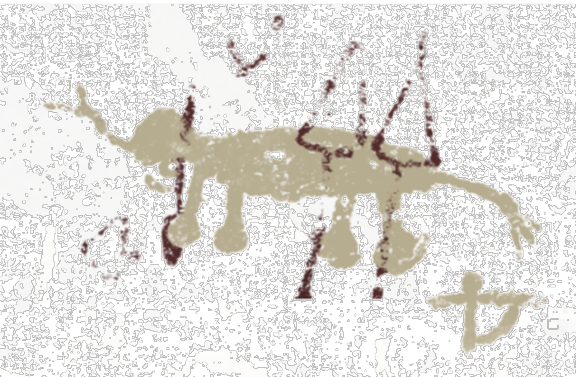


Galanga (Santos Júnior e Ervedosa,1974)



## Preliminary conclusions:

- ❖ Rock art of farming groups with metallurgy : Farmer traditions most often use white as their primary color and the pigment is applied by hand rather than using a brush.
- ❖ Associated with activities related to the prestige in the community, particularly with the traditional power (the power of the chiefs), the death of important people; hunting, and perhaps initiation rites. Outsiders could see the painted subjects such as elephants, but they could not penetrate the secret symbolic meanings and teachings encoded in the subjects.
- ❖ Most of the paintings is relatively recent, ie, after the arrival of Europeans (after the 16th century)



# The Team













OBRIGADA!

