

# ArkeoGazte

Revista de Arqueología - Arkeologia Aldizkaria



Edited by: D. Sigari and S. Garcês

**ANIMALS IN PREHISTORIC ART**  
*The Euro-Mediterranean region and its surroundings*

**ANIMALIAK HISTORIAURREKO ARTEAN**  
*Euro-Mediterranean eskualdea eta bere ingurua*

**LOS ANIMALES EN EL ARTE PREHISTORICO**  
*La región Euro-Mediterránea y su entorno*



# REVISTA ARKEOGAZTE / ARKEOGAZTE ALDIZKARIA

N. 11., año 2021. urtea 11.

Monográfico: Los animales en el arte prehistórico

Monografikoa: Animaliak historiaurreko artean

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# REVISTA ARKEOGAZTE ALDIZKARIA

N.º 11, año 2021. urtea 11. zbk.

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Animaliak Historiaurreko Artean: Euro-Mediterranean eskualdea eta bere ingurua

Los animales en el arte prehistórico: la región euro-mediterránea y su entorno

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## **PALAEOLITHIC ART IN PORTUGAL AND ITS ZOOMORPHIC FIGURES**

*Arte paleolitikoa Portugalen eta bere irudi zoomorfoak*

*El arte paleolítico en Portugal y sus figuras zoomorfas*

Mário Reis (\*)

### **Abstract**

Portugal assumes a major role in the recent trend, in Europe and elsewhere, of a substantial increase in the number of open-air Palaeolithic art sites, being the only European country in which these are the majority, together with an equally growing number of portable art sites and the only decorated cave known in Portuguese territory. The present distribution reflects the existence of a large region, the Douro basin, marked by multiple small dispersed sites centred on the vast Côa Valley complex, with other smaller concentrations or isolated sites scattered throughout the rest of the country. If the regional distribution is thus already large and with a tendency to grow, the quantification of motifs, namely of animal figures, already complete in most of the small sites and advanced in the others, gives an overwhelming advantage to the Côa complex, surpassing 4000 inventoried Palaeolithic figures, of which more than 2000 are animal representations of different types. This text presents a first quantification, by type and chronology, of the zoomorphic figures recognized in Palaeolithic art sites in Portugal, in their diverse modalities.

### **Key words**

Portugal; Upper Palaeolithic; Open-air art; Portable art; Cave art.

### **Laburpena**

Portugalek garrantzi handia du berriki eta, modu nabarmen batean, hazi diren aire zabaleko arte paleolitikoa duten lekuen artean, bai Europan eta bai beste leku batzuetan. Hain zuzen ere, bertako arte gehiena aire zabaleko adibideek osatzen duten Europako herrialde bakarra da, arte higigarria duten gero eta leku gehiagorekin eta lurralde honetan ezagutzen den apainduriko kobazulo bakarrarekin batera.

Gaur egungo leku hauen distribuzioak adierazten du eskualde handi bat dagoela, Duero ibaiaren arroa. Gune sakabanatu ugari eta txikiak ditu, Côaren eremu erraldoian zentratuak, eta baita beste kontzentrazio txiki batzuk edo gune isolatuak ere, gainerako eremu nazionalean sakabanatuak. Gaur egungo distribuzioa dagoeneko zabala izanik eta hazkunderako joera duela antzemanek, motiboen kuantifikazioak, bereziki animalia-irudienak, leku txiki gehienetan jada osatua eta gainerakoetan aurreratua, Côaren nagusitasun nabarmena islatzen du, inbentariatutako 4.000 irudi paleolitiko baino gehiago baititu, horietatik 2.000 baino gehiago mota desberdinetako animalien irudiak izanik.

(\*) Mário Reis. Parque Arqueológico do Vale do Côa / Fundação Côa Parque / Centro de Estudos em Arqueologia, Artes e Ciências do Património da Universidade de Coimbra (CEAACP).

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Testu honek, Portugalgo arte paleolitikoa duten gunetako irudi zoomorfoen lehen kuantifikazioa aurkezten du, motaren eta kronologiaren arabera eginikoa.

### **Hitz-gakoak**

Portugal; Goi Paleolitoa; Aire zabaleko artea; Arte higigarria; Kobako artea.

### **Resumen**

Portugal juega un importante papel en la tendencia existente en Europa y más allá, del reciente y sustancial incremento en el número de sitios con arte paleolítico al aire libre, siendo el único país europeo en el que estos constituyen la mayoría, junto con un número igualmente creciente de sitios con arte mueble y la única cueva decorada conocida en este territorio.

La actual distribución refleja la existencia de una gran región, la cuenca del Duero, con múltiples y pequeños sitios dispersos, centrados en el enorme complejo del Côa, con otras concentraciones más pequeñas o sitios aislados, dispersos por el resto del área nacional. Si la actual distribución regional ya es amplia y tendente al crecimiento, la cuantificación de los motivos, en particular de las figuras animales, ya completa en la mayoría de los pequeños sitios y avanzada en los demás, refleja el abrumador dominio del Côa, que supera las 4000 figuras paleolíticas inventariadas, de las cuales más de 2000 son representaciones animales de diferentes tipos. Este texto presenta una primera cuantificación, por tipo y cronología, de las figuras zoomorfas reconocidas en los sitios de arte paleolítico en Portugal, en sus diversos soportes.

### **Palabras Clave**

Portugal; Paleolítico Superior; Arte al aire libre; Arte mueble; Arte en cueva.

## PALAEOLITHIC ART IN PORTUGAL AND ITS ZOOMORPHIC FIGURES

*Arte paleolitikoa Portugalen eta bere irudi zoomorfoak*

*El arte paleolítico en Portugal y sus figuras zoomorfas*

Mário Reis (\*)

### 1. Introduction

The revelation of the Côa rock art complex in 1994/1995 brought a whole new dimension to Palaeolithic art in Portugal, not only because along with its discovery many other sites were revealed, but also because its dimension is such that, in a first and hurried view, one could almost say that Portuguese Palaeolithic art is made of the Côa and a few appendices. In a strict quantitative analysis (in number of sites, decorated rocks or motifs) so it is, other sites going unnoticed within the overwhelming quantity of the Côa art. But this would be the wrong way to observe reality, after plentiful new findings in a large geographical dispersion, displaying a complicated network of sites, whose long chronology and crossed relations demonstrate a strong adaptation of Palaeolithic communities to Iberian geomorphology (Figure 1).

A long sequence of discoveries of Palaeolithic art sites suggests we're far from the end, and that those presently known are a small sample of reality: the isolated findings of Escoural in 1963 (Figure 2) and Mazouco in 1979 (Figure 3), followed by scarce discoveries of portable art, preceded the astonishment of the identification of the Côa art in the mid-90's, and the ensuing regular discovery of new sites across the country,

with new dynamics in archaeological research and a sharper look at the reality of rock art. Other sites are likely waiting to be discovered: portable art in excavations; new decorated caves, whose scarcity remains a mystery; more open-air sites, for whose existence and enduring preservation the Portuguese geomorphological conditions are particularly apt, namely in the basins of main rivers. Another Côa is unlikely to appear in Portugal, but other open-air sites should exist, maybe just small clusters or isolated rocks or, perhaps, larger sites or small complexes, as Siega Verde or Domingo Garcia in Spain<sup>1</sup>.

This text summarizes the current situation of Palaeolithic art in Portugal, like previous ones (BAPTISTA, 2009: 190-193; 2011; 2012; BICHO *et al.*, 2007; SANTOS *et al.*, 2015), with a first quantification of animal figures (Table 1), and an essay on its typological and chronological evolution in the main phases detected in Portugal, mostly based on the Côa's established phasing. Before, the first task is establishing the present reality in the three distinct manifestations of

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1 For further information and references on the mentioned open-air Spanish sites, see text in this volume by Carlos Vázquez Marcos.

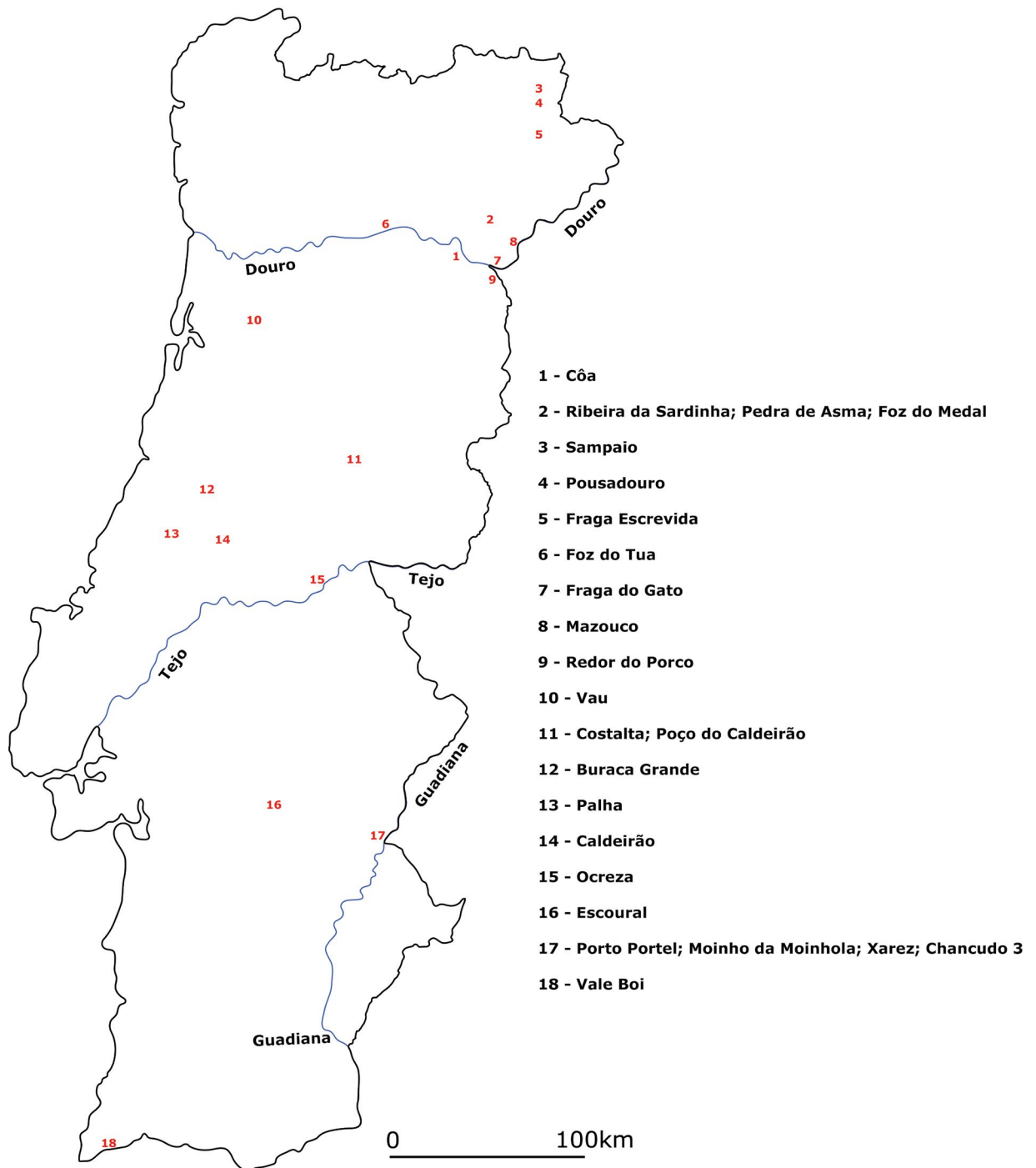


Figure 1. Distribution of Palaeolithic art sites in Portugal.

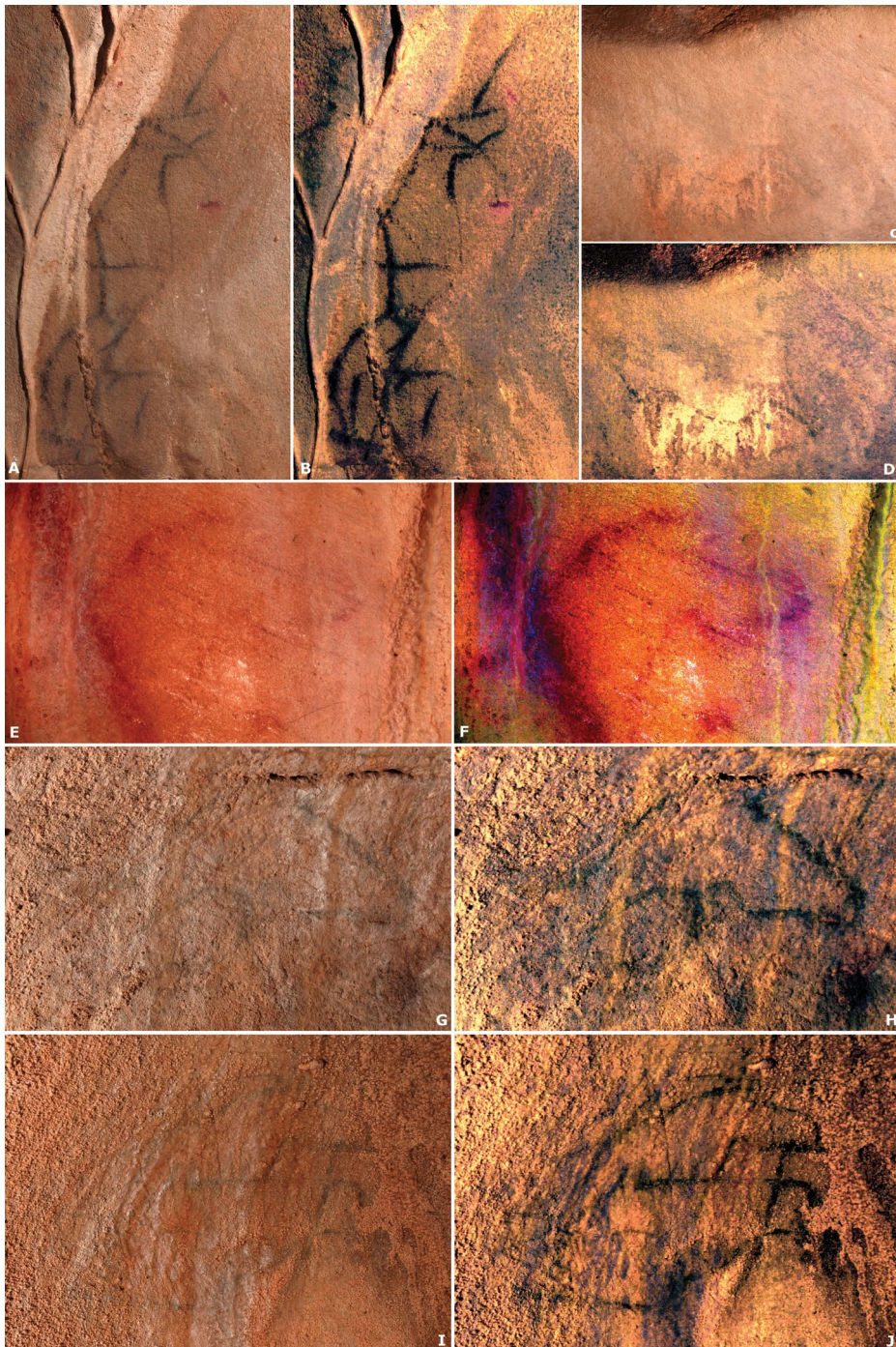


Figure 2. Images of some motifs in the Escoural cave, always contrasting the original with its DStretch treatment. A, B - possible therianthrope in black pigment, with an horse's head; C, D - undetermined black quadruped; E, F - red horse's head; G, H - black horse's head; I, J - black horse and undetermined quadruped (images obtained in October 2018 by the author, with the permission of Direcção Regional de Cultura do Alentejo and the helpful assistance of Sónia Contador, guide of Escoural cave).

Sites	Equine	Aurochs	Cervine	Caprine	Chamois	Fishes	Birds	Feline	Bison	Bears	Musteline	Mixed	Undetermined
Côa (2082)	104	131	45	101	7	1	1	-	1	1	-	-	125
	91	89	72	67	2	-	1	4	-	-	1	1	92
	108	19	358	143	10	73	5	2	-	-	1	-	426
Fariseu (87)	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	8	39	10	-	-	-	-	-	-	-	-	26
Cardina (7)	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	-	-	1	-	-	-	-	-	-	-	-	-
	-	-	2	-	-	-	-	-	-	-	-	-	3
Ribeira da Sardinha (1)	-	1	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedra de Asma (1)	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	1	-	-	-	-	-	-	-	-	-
Sampaio (4)	-	4	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Pousadouro (8)	6	-	2	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Fraga Escrevida (2)	-	2	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Foz do Tua (4)	-	-	1	-	-	-	-	-	-	-	-	1	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	2	-	-	-	-	-	-	2
Fraga do Gato (4)	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	1	-	-	-	-	-	-
	-	-	-	1	-	1	-	-	-	-	1	-	-
Mazouco (3)	2	-	1	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Redor do Porco (1)	-	1	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Costalta (1)	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Poço do Caldeirão (5)	-	-	2	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Ocreza (1)	1	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Porto Portel (1)	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	1	-	-	-	-	-	-	-	-	-	-
Moinhola (2)	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	-	-	-	-	-	-	-	-	-	-	-	1
Escoural (34)	21	7	-	-	-	-	21	-	-	-	-	1	5
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Buraca Grande (3)	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	-	-	-	-	-	-	-	-	-	-	-	2
	-	-	-	-	-	-	-	-	-	-	-	-	-
Vale Boi (4)	-	3	1	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-
Vau (6)	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-	-	-	1	-
	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 1. Relation of zoomorphic motifs in the sites with Palaeolithic art in Portugal. The Côa art complex is assembled as one, except for the portable art of Fariseu and Cardina. The three-part division for each site corresponds to the main chronological phases: Gravettian/Solutrean; Magdalenian, Late Glacial (see paragraph 6).

Palaeolithic art in Portugal: portable; cave; and open-air art; both in the quantity of sites as in the scope of the research carried out and published.

In all, 83 Palaeolithic art sites are presently (late 2018) known in Portugal. Of these, 60 belong to the Côa art complex. One has portable art (Cardina), two present simultaneously portable and open-air art (Fariseu, Quinta da Barca Sul), and the remaining 57 are strictly open-air. Dispersed along the country are 14 other open-air sites, comprising just one rock or two, eight portable art sites and one decorated cave, so the total amount of sites is as follows:

- Open-air art - 71
- Open-air and portable art - 2
- Portable art - 9
- Cave art - 1.

Zoomorphic representations are found in Escoural cave, in four portable art sites outside the Côa (Foz do Medal, Vau, Buraca Grande, Vale Boi) and in all open-air sites outside the Côa. At the Côa, animal figures exist in 48 of the 57 open-air sites, plus in Fariseu (in portable and open-air), Cardina (portable only), and Quinta da Barca Sul (open-air only). There are currently 70 sites in



Figure 3. The Mazouco horse, the first Palaeolithic open-air figure to be identified in Portugal, and one of the first in the world. Notice the unfortunate recent enhancement of the trace, made by local people shortly after the announcement of the discovery (note - photograph by the author, as all other photographs in the following Figures).

Portugal with zoomorphic figures. Table 1 is based on my own work on the Côa and on publications of the remaining sites, with some adaptations of my own (mostly for Escoural), and with an important novelty for the open-air painted site of Fraga do Gato (Figure 4).

## 2. Portable art: few sites, marked disparities

Portugal was, for long, a country with little relevance in Palaeolithic portable art, with the first reliable finding occurring only in 1983, in Caldeirão cave in central Portugal (ZILHÃO, 1988; 1997: Vol. II - 691-692). A second finding occurred in the same region in the early nineties, a schist plaque at the Buraca Grande cave, enriched some years later with a new finding of a deer antler decorated with parallel incisions and dated to approximately 13.000 BP (AUBRY and MOURA, 1993; ZILHÃO, 1997: Vol. II - 843-844). With scarcity came a poor and hard to decipher ichnography in both findings, and an unclear chronological context for the Buraca Grande plaque, although probably Magdalenian.

This uncheering panorama started to change with the Côa revelation and ensuing research. At first with the identification of a few ichnographically poor plaques in the Cardina and Quinta da Barca Sul terraces (AUBRY, 2009; AUBRY *et al.*, 2015; 2017; DIEZ and AUBRY, 2002: 175; DIEZ, 2009). The great leap forward came with the excavations of the Fariseu terrace, providing 89 specimens of portable art. Most, and including all those with significant ichnography, came from a layer dated to the end of the glacial period and early Holocene (SANTOS *et al.*, 2018). Recent and ongoing excavations in Cardina provided 39 more specimens, with a wider diachronic and stratigraphic context than Fariseu (AUBRY *et al.*, 2015; 2017).

There were novelties in other areas of Portugal, mostly connected with public works. Such was the discovery in 2002/2003 of three Late Magdalenian decorated bone fragments in the site of Palha in the karstic area of central Portugal, close to Caldeirão and Buraca

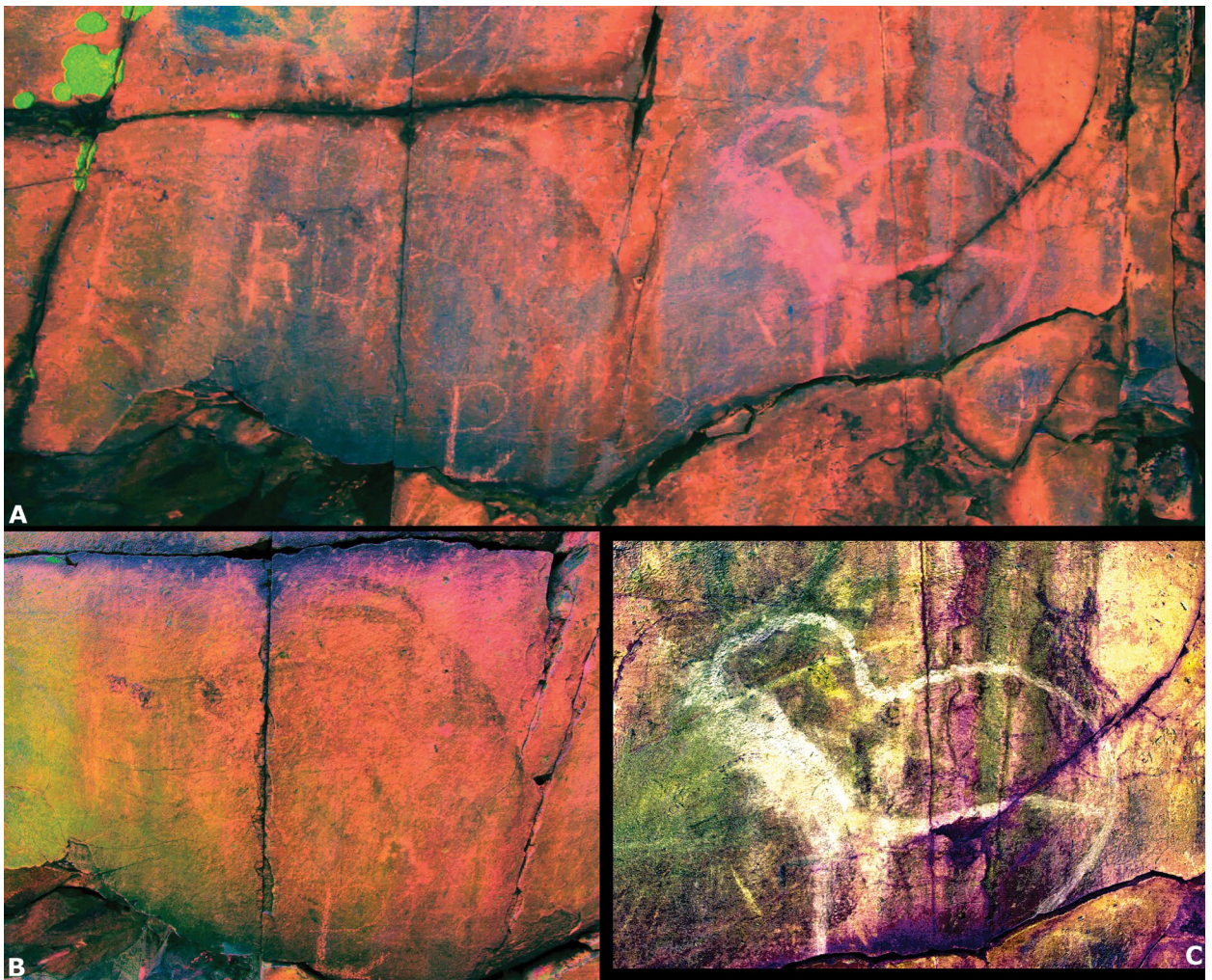


Figure 4. The open-air Palaeolithic paintings of Fraga do Gato, in images filtered by DStretch. A - general view of the painted set, with the owl, musteline and fish on the right, and the possible new caprine on the left; B - detail of the black painted caprine; C - detail of the set composed of the owl, in black and superimposed by the red painted musteline, with the possible fish over its head and chest line.

Grande, with incisions depicting abstract or unrecognizable motifs (BRAZ and GASPAR, 2003). Also, two pebbles with abstract incised figures in the southern Guadiana valley, found within the research undertaken at the construction of the immense Alqueva dam in the late 20th and early 21st centuries, in the sites of Xerez (GOMES *et al.*, 2000: 97) and Chancudo 3 (ALMEIDA *et al.*, 2013: 93-94, 218), near the decorated rocks of Moinhola and Porto Portel.

From the second decade of the 21st century date the Vale Boi findings (VALLEJO *et al.*, 2012), within a research project in the southern coast of Portugal, with two decorated plaques in Solutrean layers with well-identified figures. Another dam brought the discovery of the highly complex Magdalenian Vau plaque, in the Vouga basin in Central Portugal. Published information is scarce (cf. GAMEIRO *et al.*, 2018), but the tracing was recently made available (SANTOS, 2017: Vol. 2 – 328). The most outstanding discovery came

again from the Douro basin and near the Côa, with yet another dam, this time in the Sabor Valley. It's the site of Foz do Medal, with approximately 1500 decorated plaques fragments in different layers: Gravettian, Solutrean and, mostly, Magdalenian (FIGUEIREDO *et al.*, 2014b; 2015; 2016).

Schist was the choice material for portable art, mostly in plaques, with few pebbles (Cardina, Fariseu, Foz do Medal, Caldeirão), and including in karstic areas (Caldeirão, Buraca Grande, Vale Boi). There is limited decoration on quartzite (Fariseu, Xerez, Chancudo 3) or granite pebbles (Fariseu), and there are only two sites where scant non-lithic material was used (Palha, Buraca Grande).

There are obvious quantitative disparities between these findings, with three sites in the Côa and Sabor valleys accumulating many specimens (Cardina, Fariseu, Foz do Medal), and other sites having usually just one specimen, and only occasionally more than one (Buraca Grande, Vale Boi, Palha). The scarcity of known sites (archaeological research of Upper Palaeolithic sites having a low intensity in Portugal) may partly explain this factor, being yet soon to categorically state that campsites in the Douro basin have a larger probability to accumulate large amounts of portable art. Published information on the ichnography of known specimens is provided, with one relevant exception. All cases where the portable art is made of just one or two examples are published. Zoomorphic figures appear on plaques in three sites: Buraca Grande, Vau and Vale Boi. The Fariseu collection is presented in detail (SANTOS *et al.*, 2018). In Cardina, a few published specimens allow a first count of the zoomorphic figures (AUBRY *et al.*, 2015; 2017). The immense amount of decorated plaques in Foz do Medal is due to two factors: a high rate of fragmentation, and an extensive excavation. A summary presentation of the whole has been published and a handful of plaques individually presented, but the set is under study by Sofia Figueiredo and a general inventory is yet unavailable, hence the absence from Table 1.

### 3. Decorated caves: a very lonely example

Escoural cave, in a small karstic pocket amid the vast plains of southern Portugal, was the first Palaeolithic art site identified in Portugal. It connected ever since the western extremity of Iberia to the universe of European Palaeolithic art and remains even today as Europe's westernmost decorated Palaeolithic cave. With rich and temporally enlarged archaeological remains, both artistic and of different occupations, its discovery, research and preservation have a complicated history, recently summarized by António Carlos Silva (2011).

More than half a century later, it's remarkable that Escoural remains the only cave decorated with Palaeolithic art in Portugal (cave-found portable art excepted, naturally). Portugal has a mostly non-karstic geology, made predominantly of granite and schist terrains. Even so, there are two large karstic regions, both along the seaside but also penetrating deeply inland: the large central limestone strip between the cities of Setúbal and Coimbra, and the Algarve southern coast. Besides, from North to South, mostly on the interior, there are several karstic pockets, usually enough to hold small cavities like Escoural. Plenty of caves are known with remains of ancient occupations, often from the Upper Palaeolithic (cf. ZILHÃO, 1997). Speleologists explore other caves without known archaeological remains, and there are plentiful explorations made by non-specialists. It is thus clear that in the universe of known cavities there aren't any with visually exuberant paintings, otherwise they would have been spotted. The admissible exception is that such obvious remains may be in unexplored or exceptionally hard to reach areas in known caves, or are yet to be found in unknown caves. Another possibility is that decoration may exist in known caves, if made of very indistinct engravings or paintings. This should be seriously considered since, other than Escoural, few, if any, specifically art-oriented works were undertaken in Portuguese caves.

Neither the inventory nor the chronological attributions of motifs are finished

in Escoural. Two early texts provided an overall view of the decoration (GLORY *et al.*, 1965; SANTOS *et al.*, 1981). Later, research works undertaken by Marylise Lejeune lead to the first inventory of its Palaeolithic art (LEJEUNE, 1995; 1996). It was harshly criticized by Mário Varela Gomes, consequently publishing four or five animal figures not present in the inventory<sup>2</sup>, and mentioning other unspecified absences (GOMES, 1995; 2002: 155-156). The criticism was seconded in a new study by a team from the Côa Valley Archaeological Park (GARCÍA *et al.*, 2000: 12). Here, in addition to the reinterpretation of some figures, the inventory's incomplete character was reinforced by the identification of a few new motifs (GARCÍA *et al.*, 2000: 6). These were later established as two engraved aurochs, with some signs in association with one of those (SILVA, 2011: 84-87), and also a very effaced black-painted aurochs superimposed on a red-painted horse (BAPTISTA, 2012: 9). Furthermore, came the reinterpretation of Lejeune's figure 59, called a "geometric animal", but clearly interpretable as a horse and another animal, (SANTOS *et al.*, 2015: 127), that I consider to be also a large horse's head (see Figure 2-I/J). Lejeune's inventory also doesn't relate its figures to those previously published, and since that relation is far from obvious in some cases, the doubt remains if they're all contemplated in her inventory. That's an issue mostly relevant for zoomorphic figures, with the first texts mentioning the existence of cervid and caprine, whereas the new inventory refers only horses and aurochs, not always of an evident interpretation. In particular, comparing with the 1965 traced figures (GLORY *et al.*, 1965), the engraved deer of Glory (nº 24) appears to match Lejeune's figure 71 (with photography suggesting her aurochs interpretation to be accurate); Glory's figure 13 matches Lejeune's figure 30; and figure 12, supposedly a caprine, is considered (without further analysis) as non-identifiable traces; but we don't know what happened to Glory's figure 14, supposedly a black-painted aurochs

but missing from Lejeune's inventory, the same happening to Glory's figure 9, another black-painted and also engraved aurochs. As for Glory's figure 8, an engraved and black-painted caprine, it clearly matches Lejeune's figure 19 (Figure 2-C/D), interpreted as a painted aurochs, but whereas Lejeune contemplates only the painted legs and belly, Glory includes the engraved head and horns, and it remains uncertain if those engravings actually exist, and if it's caprine, aurochs, or something else. A more detailed comparison to located but non-traced figures by Glory may bring to surface other interpretational divergences. In short, a new inventory would be important, revising all known figures and comparing distinct versions, with a careful viewing of all existing walls, searching for new elements in a relatively small cave.

The chronology of Escoural's decoration is also far from solved. The first more specific study attributes it to the Aurignacian (GLORY *et al.*, 1965). Among different proposals by several authors (cf. LEJEUNE, 1995: 144; SANTOS, 2017: Vol. 1 - 200-202), Santos, Gomes and Monteiro suggested its division in two groups: the first within Leroi-Gourhan's Style II, represented mostly by the large bovine heads and a few signs; the second, represented by the smaller figures and many signs, within Style III, with the possibility of some motifs belonging to later periods (SANTOS *et al.*, 1981: 238). Later, Mário Varela Gomes considers three phases: Late Gravettian/Early Solutrean; Late Solutrean/Early Magdalenian; Middle and Late Magdalenian (GOMES, 2002: 155). Marylise Lejeune (1995: 145; 1996: 237) places the whole in the Solutrean, but not excluding a possible extension to Early Magdalenian, or the existence of some post-glacial figures. Differently, João Zilhão considers that, since Aurignacian and Solutrean are the two well-defined occupation phases in the cave, without obvious remains from other phases, the likelier is for the decoration to belong to one or

<sup>2</sup> Four horses, an aurochs and a few signs, but the black-painted horse's head (GOMES, 1995: 151) may correspond to figure 44 of Lejeune's inventory.

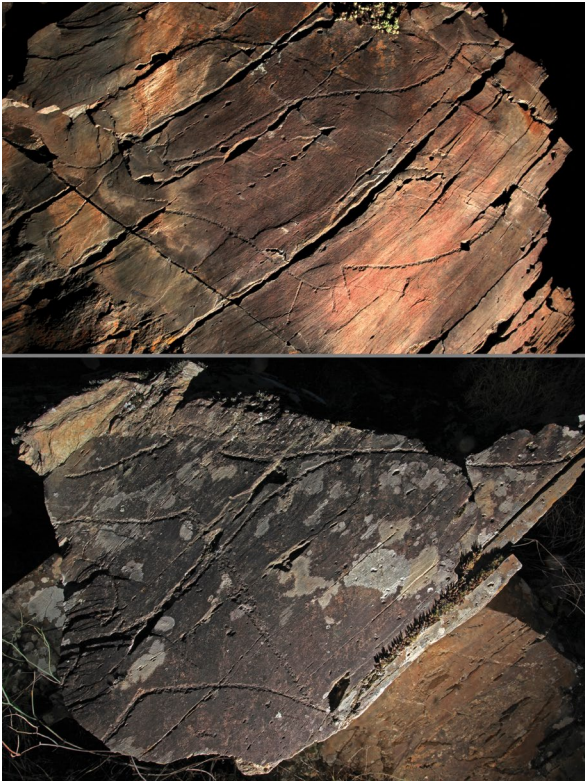


Figure 5. Engraved aurochs in the Sampaio site. A - large aurochs in panel A; B - two-headed aurochs, broken, in panel C.

both these phases, and suggesting the paintings to be Aurignacian, and maybe a few stylistically similar engravings (ZILHÃO, 1997: 101-106). Nuno Bicho, however, considers the oldest occupation phase to be Gravettian, as well as the oldest figures in the cave (BICHO *et al.*, 2007: 117).

I believe the attribution of most or the whole of the decoration to the Aurignacian is stylistically untenable. The paintings, both in black and red, are very homogeneous, namely the horse figures, numerically dominant and almost all with high “brush” mane and “duck-beak” head. The engraved figures are quite different, but also form a rather homogeneous group, with few exceptions. Based on their relative stratigraphy, Lejeune considers the oldest to be the black paintings, followed by engravings with

a certain type of trace (including all the animals she inventories), followed by the red paintings, and ending with the remaining engravings with a different sort of trace (all signs) Also, in her opinion, the first three phases were performed in a relatively short time (LEJEUNE, 1995: 142-144; 1996: 229-232). Accepting this reasoning and considering the obvious stylistic similarity of the black and red paintings and their distinction to the engraved figures, we’d have a seemingly implausible evolution: a separate making of painted motifs stylistically similar but in distinct pigments, intercalated by stylistically quite different engravings.

However, comparing Escoural with Parpalló’s portable art (BONILLA, 1994), namely the painted and engraved horses (the figures with the better parallels), the image is arguably not all that different from Lejeune’s suggestion, albeit with an earlier beginning, and with a less rigid and more varied evolutionary scheme. The painted horses have their finer parallels in Solutrean dated figures, on occasion going back to the Gravettian. As for engraved horses, figures with striated traces on the head or neck appear mostly in Gravettian/Solutrean layers, with a few also comparable to Escoural figures in Early Magdalenian layers. There are hardly any stratigraphically well-marked parallels for the aurochs’ figures, but it seems likely they’re chronologically related to the rest. A future revision of the Escoural decoration should also check if the figurative superimposition sequence is as rigid and general as Lejeune suggests. If so, it would not just be surprising but also, undoubtedly, very interesting, raising some difficult issues, including the difficulty to conciliate with the Parpalló sequence.

Thus, lacking more accurate data, it appears correct to place most of the Escoural decoration in a single phase, centred on the Solutrean and ranging from the Gravettian to the Early Magdalenian. Some figures may go as far back as the Aurignacian/Early Gravettian, but it’s difficult to suggest which. Some others may be chronologically more advanced, from Late Glacial times, but only one is easier to suggest



Figure 6. The main decorated panel in Pousadouro, depicting horses and cervine.



Figure 7. The large decorated panel of Fraga Escrevida. The two Palaeolithic aurochs, measuring over three metres, have broad but very faded traces, hardly noticeable below the many medieval/modern religious motifs.

for this more recent period<sup>3</sup>, namely the aurochs corresponding to Lejeune's figure 2, stylistically close to examples in the Fariseu plaques, as in plaque 1 (BAPTISTA, 2011: 132; SANTOS *et al.*, 2018: 83). But it cannot be claimed categorically and, for now, I place it along the others. I believe that the key for understanding the evolution of Escoural's decoration lies in a better precision in the chronology of its engravings, particularly the horse figures, which have greater interpretational divergences.

#### 4. Open air art: many points, an overwhelming centre

It is common knowledge that the open-air rock of Mazouco, at the mouth of a small

affluent of the Douro, was among the first to be identified in the world (JORGE *et al.*, 1981; 1982; BAPTISTA, 2009: 194-195; SANTOS, 2017: Vol. 1 - 361-362). This was an early and small step for the implantation of open-air Palaeolithic art paradigm alongside cave art paradigm. A slow change, initially shared with the discovery of isolated rocks in France and Spain and accelerated in the early nineties with the full identification of Siega Verde and Domingo García.

With paradigm change on course, its fulfilment occurs with the discovery of the Côa rock art, with the immense controversy that accompanied it and the scientific awareness brought by the understanding of the magnitude of this complex, still growing today with new findings. Henceforward, both from new dynamics in scientific research and from an increasing attention to the adequate conditions

3 For a different opinion, see SANTOS *et al.*, 2018: 57



Figure 8. Two-headed mixed animal in Foz do Tua rock-shelter. The body and upper head belong to a deer. The lower head was at first that of an aurochs, later transformed into a horse's.

for the existence of open-air Palaeolithic art, new discoveries happened regularly, and will probably continue, both in Portugal and Spain and, actually, in any region with apt geological conditions for the making and long-term preservation of open-air art.

Thus, at the river Sabor close to the Côa, discoveries began in 1997 with the lone aurochs of Ribeira da Sardinha, in low Sabor (TEIXEIRA and RODRIGUES, 1997; BAPTISTA, 2009: 196-197; SANTOS, 2017: Vol. 1 - 359-360), continue in 2001 with three sites in high Sabor (Figures 5, 6, 7): Fraga

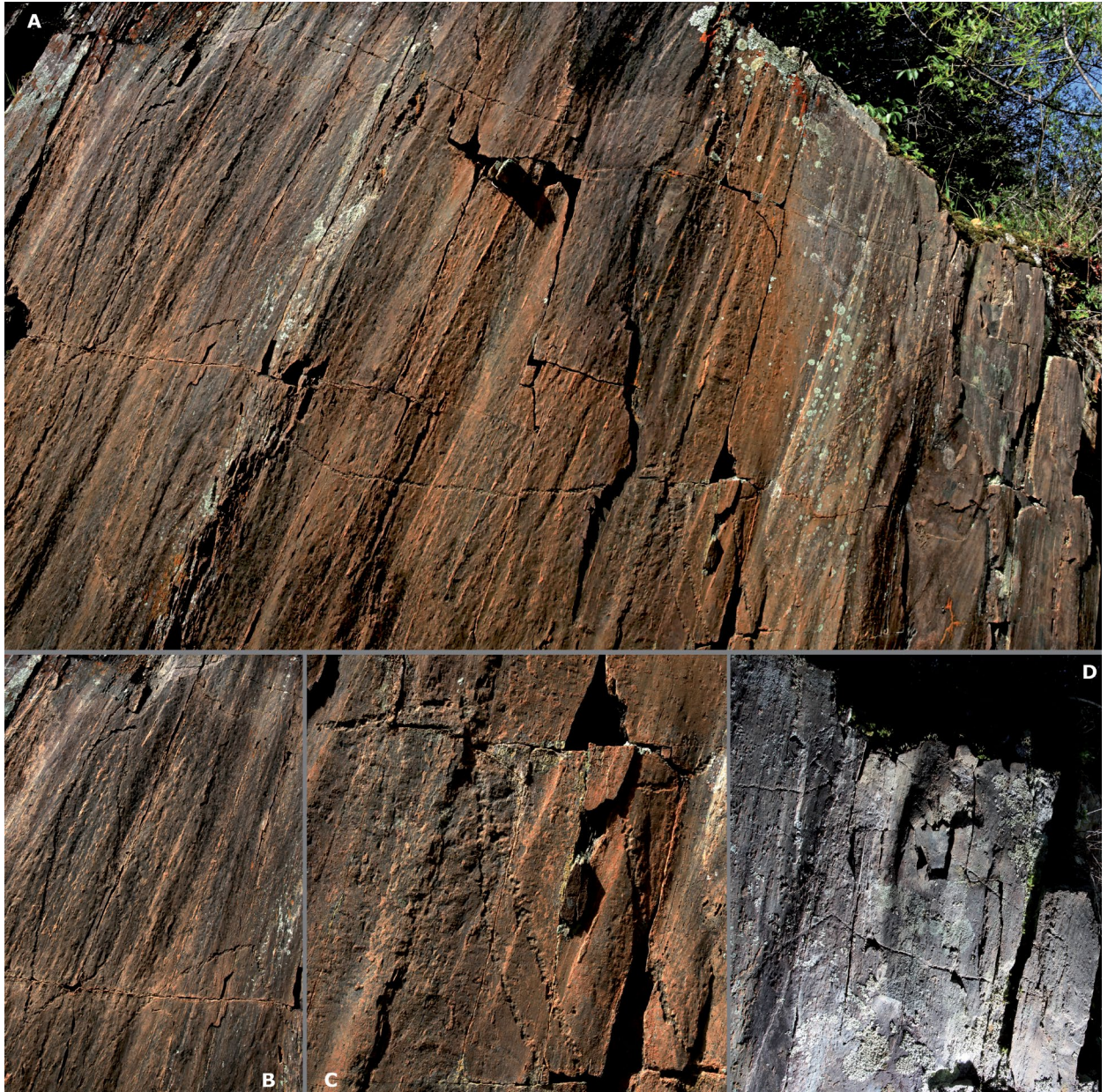


Figure 9. Large aurochs in Redor do Porco. A - the whole figure, difficult to visualize due to the size, about 180 cm; B - detail of the backside and tail, with the legs stretched to the rear; C - detail of the front legs, with an extra trace that appears to be the result of a mistake by the engraver; D - detail of the head.

Escrevida, Pousadouro and Sampaio (BAPTISTA, 2009: 197-207; SANTOS, 2017: Vol. 1 - 357-359), closing in 2013 with the identification of rock 7 of Pedra de Asma (FIGUEIREDO *et al.*, 2014a: 195-197), again in low Sabor and close to Ribeira da Sardinha and Foz do Medal campsite. Meanwhile, an original rock with open-air paintings, Fraga do Gato, in a tributary of the Douro between Côa and Mazouco, and firstly identified in the eighties, only later was duly revealed to public notice (BAPTISTA, 2009: 194-195; REBANDA, 2006: 62-63; SANTOS, 2017: Vol. 1 - 362-363)<sup>4</sup>. Still in the Douro and not far from the Côa came the discoveries of the isolated rocks of Foz do Tua (Figure 8) in 2010 (SANCHES and TEIXEIRA, 2013; TEIXEIRA *et al.*, 2016; TEIXEIRA and SANCHES, 2017; VALDEZ-TULLETT, 2013; SANTOS, 2017: Vol. 1 - 363-364) and Redor do Porco (Figure 9) in 2011 (BAPTISTA, 2011; BAPTISTA and REIS, 2011; SANTOS, 2017: Vol. 1 - 348), the last one near the mouth of the Águeda river and almost facing the Spanish site of Arroyo de las Almas. If the discovery of Mazouco is disconnected and occasional, the ones of Fraga do Gato and in the Águeda and high Sabor are connected with the new knowledge and new paradigm brought by Mazouco and the Côa, the same happening with the low Sabor and Foz do Tua discoveries, but now in the context of major public works.

Intercalated in time with the previous, the Centre and South of Portugal witnessed new discoveries, greatly amplifying the geography of open-air art in Portugal. Some resulted from the novel consideration given by occasional passers-by to the reality of open-air Palaeolithic art, others came once again within the research brought by a major construction. So, in Central Portugal, on two distant affluents of the Tagus, in 2000 is identified the isolated horse at the Ocreza river (BAPTISTA, 2009: 208-211; GARCÊS, 2017: Vol. II - 17-19; SANTOS, 2017: Vol. 1 - 367-368), and in 2003, on the margins of the Zêzere,

the neighbourly sites of Costalta and Poço do Caldeirão (BAPTISTA, 2009: 216-223; SANTOS, 2017: Vol. 1 - 365-367). In the South, also in 2000 and on the margins of the Guadiana at the construction of the Alqueva dam, were identified the isolated rocks of Moinhola and Porto Portel (BAPTISTA and SANTOS, 2013: 147-148, 149, 220-224, 226), near the larger Spanish site of Molino Manzánéz.

All open-air sites beyond the Côa are published, and their zoomorphic figures can be correctly inventoried. In some cases, detailed further ahead in this text, I present small changes regarding the published works, more important in Fraga do Gato, with two new animals. As to the Côa, besides many texts by several authors, some references concern the inventory and characteristics of the Palaeolithic ichnography (BAPTISTA, 1999; 2009; BAPTISTA and GOMES, 1997; REIS, 2012; 2013; 2014; SANTOS, 2012; 2017). However, a full inventory of the Côa motifs isn't ready yet. I am now preparing such an inventory, to be published in a book to come, including also a detailed description of each site. The Côa region<sup>5</sup> has at this point (late 2018) 94 rock art sites (60 Palaeolithic), 1307 decorated rocks or other types of stone supports (591 Palaeolithic) and 13311 individual figures, of which 4218 are Palaeolithic, and (adding open-air and portable art) including 2176 zoomorphic representations of different sorts (Figures 10, 11, 12, 13, 14). These numbers must always be regarded as provisional, through their constant renewal by new findings and an equally constant re-evaluation of already known rocks, with addition of new figures previously unnoticed, or better observation and consequent changes in the typological and/or chronological classification of others.

4 Its public presentation was made in 1986 by its discoverer, the archaeologist Nelson Rebanda, in a congress whose proceedings were never published, so its existence went largely unnoticed (REBANDA, 2006: 62).

5 I will provide in this book a detailed definition of what can be understood as "Côa art region". For now, it suffices to say that sites are roughly restricted along the last 30 kilometres of the Côa and the adjacent 17 kilometres of the Douro.



Figure 10. Horse representations in the Côa region. A - rock 1 of Canada do Inferno, double-headed (Gravettian/Solutrean); B - rock 15 of Quinta da Barca (Gravettian/Solutrean); C - rock 147 of Foz do Côa, with open mouth (Magdalenian); D - rock 41 of Canada do Inferno, with large detail on the head, including a “tear” under the eye (Magdalenian); E - rock 103 of Foz do Côa (Late Glacial); F - rock 49 of Foz do Côa (Late Glacial).



Figure 11. Auroch representations in the Côa region. A - rock 1 of Vale de Figueira (Gravettian/Solutrean); B - rock 3 of Canada do Inferno, made with three different engraving modalities: pecking, abrasion and incision (Gravettian/Solutrean); C - rock 24 of Ribeira de Piscos, with head turned towards the observer (Magdalenian); D - rock 3 of Moinhos de Cima (Magdalenian); E - rock 6 of Vale de José Esteves (Late Glacial); F - rock 148 of Foz do Côa, with a frontal perspective of the horns, forming a circle (Late Glacial).



Figure 12. Cervine representations in the Côa region. A - rock 56 of Quinta da Barca, with open mouth and head superimposed to an aurochs head (Gravettian/Solutrean); B - rock 11 of Penascosa, a pair of deer (Gravettian/Solutrean); C - rock 69 of Foz do Côa (Magdalenian); D - rock 4 of Vale de José Esteves, doe superimposed to signs (Magdalenian); E - rock 69 of Vale do Forno, pair of long antlered deer (Late Glacial); F - rock 1 of Vermelha, doe's head (Late Glacial).

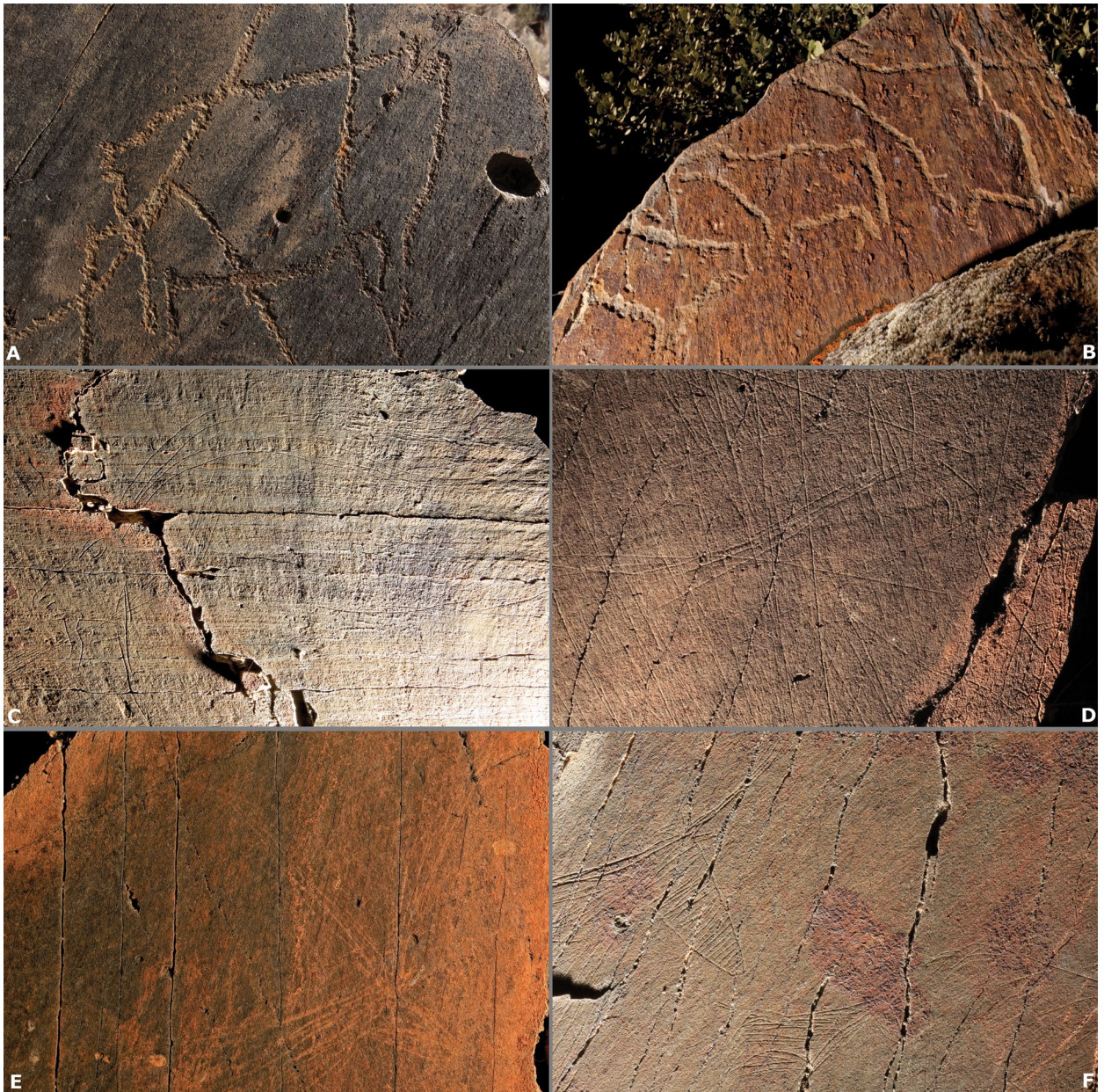


Figure 13. Caprine representations in the Côa region. A - rock 8 of Penascosa, with head turned towards the observer (Gravettian/Solutrean); B - rock 11 of Quinta da Barca, a trio of small pecked goats (Gravettian/Solutrean); C - rock 8 of Fariseu, a long horned and long bearded male goat (Magdalenian); D - rock 4 of Vale de José Esteves (Magdalenian); E - rock 1 of Vermelhosa (Late Glacial); F - rock 52 of Foz do Côa, with a small caprine, probably a kid, between two larger adults, within a larger representation of a herd (Late Glacial).



Figure 14. Representations of rare animals in the Côa region. A - rock 1 of Fariseu: chamois, with the characteristic hooked horn (Gravettian/Solutrean); B - rock 5 of Vale de José Esteves: fish, displayed here turned 90° clockwise (Late Glacial); C - rock 4 of Broeira: possible feline (Magdalenian); D - rock 24 of Ribeira de Piscos: possible musteline (Magdalenian); E - rock 69 of Vale do Forno: bird (Late Glacial); F - rock 11 of Vale do Forno: a strange undetermined quadruped, difficult to identify, though it could have tusks in its head (Late Glacial).

## 5. Geography of Portuguese Palaeolithic art: brief approach

There are still many empty areas in the distribution of Palaeolithic art in Portugal, but it's also clear the growing tendency for it, in different modalities, to begin appearing all over the country, from North to South, inland and coastland. The larger inland concentration is unsurprising, given the better preservation conditions it offers: small population density and corresponding smaller anthropic pressure, and suitable geomorphological conditions with vast areas of schist geology in the basins of major rivers, particularly fit for the making and preservation of rock art. Further open-air sites are anticipated mostly here. It's expectable the identification of more portable art in karstic and other geological areas and it's likely that more decorated caves may be discovered, when research focuses more specifically on this topic, on the two major karstic areas in central and southern Portugal, or on the several small karstic pockets over the country.

Presently, only one region has a large enough group of sites to be consistently considered as a whole: the Portuguese upper Douro basin that, as a Palaeolithic art region, obviously extends into the Spanish Duero. In Portugal it has an immense centre in the Côa, which is surrounded by isolated rocks or small clusters, in a vast area following the routes defined by the Douro's hydrographical network. Stylistically, the art of the Côa, in its enormous abundance and diversity, has parallels all over Iberia and Europe, in another clear example of the geographical extent of the artistic phenomenon of the European Palaeolithic, with its main regional connection in northern Iberia (SANTOS *et al.*, 2015: 127; SANTOS, 2017). Studies on the origins of the Côa's raw-materials demonstrated their wide dispersion (AUBRY *et al.*, 2009; 2012) along the Spanish Douro basin, but also on the Tagus basin, in central Spain and in Portugal's central karstic area. A stylistic proximity between Palaeolithic art from these regions is known, but the scarce portable art from central Portugal doesn't allow for reliable comparisons. In the

midst lies the Vau site, whose characteristics, both of the style of the engraved plaque and of the excavated materials, suggest connections with the Côa region (cf. GAMEIRO *et al.*, 2018).

In the South, the main connection of Escoural, Vale Boi and the Guadiana sites is with southern Iberia, as can be seen in the stylistic proximity of Escoural with Parpalló, among other sites, or in the comparisons established for Guadiana and Vale Boi (SANTOS *et al.*, 2015: 130, VALLEJO *et al.*, 2012).

Between the Côa and the South, the Tagus basin has a more diverse reality. The Ocreza horse has strong similarities with the Piedras Blancas horse, in southern Iberia (BAPTISTA, 2009: 211). Further North in the Zêzere valley, the Costalta and Poço do Caldeirão horses are closely connected to Siega Verde in the Douro (BAPTISTA, 2009: 216), but both deer from Poço do Caldeirão have better parallels in the South (SANTOS, 2017: Vol. 1 - 366-367). Findings are yet scarce to define this region's proper identity, but comparisons suggest a broad area of influence, from the North to the South of Iberia.

This panorama fits well with Iberian geography. The northern Douro basin is related mainly to the North, the southern plains are mainly related to the South, and the intermediate region with both. Naturally, this is an excessively simple picture, in a fluid reality in the Upper Palaeolithic that must have had wider and more complex relationships between different regions than those suggested in this simple scheme.

If the Côa art region asserts itself as an immense aggregating area, with decorated sites and rocks close to one another, the geographical dispersion of Palaeolithic art is defined mostly by the small open-air sites. At the Guadiana and Tagus basins they're still insufficient. But in the Douro they allow a more comprehensive look and the placing of a few hypotheses. Of the nine different small sites around the Côa, one is Magdalenian (Fraga do Gato) and three Late Glacial (Fraga do Gato, Pedra de Asma, Foz do Tua).

We could add the Magdalenian and Late Glacial incised engravings of Arroyo de las Almas, located in Spain but geographically very close and with strong affinities to the Côa region. But Gravettian/Solutrean engravings, always with a broad trace and large or very large dimensions, belong in seven of these sites (including Foz do Tua). It is too early to state categorically that this reflects an actual tendency for an older chronology in smaller sites, or if it is rather a distortion introduced by the much greater visibility inducing the discovery of the larger older motifs. I believe more in the second hypothesis, and that many sites, with different chronologies, implementation and visibility, are yet to be discovered in the region.

Considering the locations for these out-of-the-way motifs, they have different characteristics and it's not always easy to spot the choices behind them. The Pedra de Asma and Ribeira da Sardinha rocks are very discreet in the landscape, but quite close to campsites in the Sabor margins, namely Foz do Medal. Otherwise, within location diversity, there seems to be a deliberate choice of special places: Sampaio lies in a passage route through the Sabor; Pousadouro is a rare and imposing rock-shelter in the Sabor margin; Foz do Tua signals the mouth of an important river, furthermore enhanced with the notorious geological change from schist at the mouth to granite just a few hundred metres inland; Mazouco has a similar drastic geomorphological change, with the decorated rock at the mouth of a small stream, seeming mostly to signal the geological transition from schist (where it lies) to the granite on the opposite bank, where begins the striking and imposing International Douro deep canyon, which climbs for some 100 kilometres until disappearing in to the vast plateaux of the Spanish Meseta.

Fraga do Gato has, simply, the most spectacular implantation of a Palaeolithic rock in Portugal, in a deep and impressive quartzite canyon in Ribeira do Mosteiro, another affluent of the Douro, with the painted motifs presiding over an obvious passing point, from the deep valley to the high plateaux North of the Douro. Something similar, although less remarkable, happens in

Arroyo de las Almas, the easiest access from the Douro margins to the high plateaux South of the Douro. Some of its discreet incised engravings lie at the base of large rocky cliffs, visually very appealing. Harder to understand are the choices for Fraga Escrevida and Redor do Porco, whose panels are large indeed, but insignificant in the midst of their slopes, along many other similar outcrops. Maybe to compensate, their motifs are unusually large.

Regardless of varying choices between sites, there are no seemingly functional reasons to place decoration in these sites. That is, it is unlikely they were so placed as signposts to teach passers-by they are indeed in the right course or place (in passing sites, for instance, the decision to take that path had to be taken many hours before). Decoration may rather have the purpose of enduringly marking special spaces, functional or not (routes, limits, etc.), bringing them within the symbolic humanization of landscape brought by open-air art.

## 6. Animals in the Palaeolithic art of Portugal

So far, Aurignacian figures are absent from Portuguese Palaeolithic art. The possibility of their existence in Escoural is mentioned, but with an obvious difficulty in their identification. At the Côa, the recent excavation of a possible Aurignacian layer in the Cardina campsite (AUBRY *et al.*, 2015: 24; 2018: 63) raises, if confirmed, the hypothesis of coeval figures being hidden among the legion of identified Palaeolithic motifs in the region, but it is too early to suggest which might they be.

Thus, Portuguese known Palaeolithic art begins at the Gravettian. Only the Côa has a clear complete sequence. After an early suggestion of the existence of two large phases: Gravettian/Solutrean, followed by the Magdalenian, including its final stages (cf. BAPTISTA, 1999; 2009), a recent revision adapts this evolution scheme more to reality (SANTOS, 2012), dividing it in three main phases: Phase 1 corresponding to the Gravettian/Solutrean (~30.000/18.000 BP), Phase 2 to the Magdalenian, probably beginning

in Late Solutrean (~18.000/13.000 BP); Phase 3 in the final moments of the Pleistocene and in the Early Holocene (~13.000/10.000 BP), having a multitude of designations: Late Magdalenian, Azilian, Late Glacial, Style V, even Epipalaeolithic, with "Late Glacial" being used in this text.

Stylistically, differentiation between the three Côa phases is, shortly, the following: in Phase 1 animal figures are naturalistic but also much stereotyped (increasing the difficulty to distinguish evolutionary trends within the phase), with careful attention to the correct proportions but little use of small body details. Figures are generally static and not very expressive although, at this stage, animation by repetition of body parts is often used; in Phase 2, with greater variety and stylistic evolution, extremely naturalistic animal representations are the rule, with strong expressivity and intense use of body details; in Phase 3 most animal figures maintain body expressivity but lose in naturalism, frequently with incorrect proportions and a tendency to geometrize, making it more complicated to recognize the represented species. There is a greater stylistic variety, seemingly evolving towards less naturalism and greater stereotyping.

This three-phase division does not just reflect a simple stylistic evolution, but may correspond to major conceptual phases in the symbolic and ideological expression of Palaeolithic communities, manifested in the conjugation of several factors: among these, style is prominent, but also figure dimension; the degree of naturalism in representation; technical modalities; placement in certain parts of the landscape and the aptitude to be better or worse perceived in it; specific placement in certain parts of the panels; relative proportions in the quantities of different animals and their relationships with one another; connections between animal figures and other representations (human, abstract, or just random traces); connections between art and habitat locations. These and other factors evolve in not always easy to apprehend ways but, put together (and not excluding internal evolutions within each phase), they seem to separately define each of the three major periods mentioned above.

The first two phases are clearly separated by the Solutrean, and the last two at the Late Magdalenian, possibly around 13.000 BP, although the transition mode is yet unclear. Phase 3 plenitude arrives at the end of glacial times, as clearly indicated by dates of Fariseu's portable art layer, with this phase prolonging fully into the Holocene. A distinction may be made (in a change that seems to simultaneously express continuity and rupture) of a new sequential phase that may properly be called Epipalaeolithic, which possibly begins around 10.000 BP. This is represented by several figures, such as the Vale de Cabrões deer or the Faia painted aurochs (BAPTISTA, 1999: 138-139, 159).

This is a well-established phasing for the Côa and is unreservedly applicable to the remaining sites in the Douro and, probably, also to the Tagus basin. It is unclear if such a conceptual evolution is valid in the whole Portuguese territory, namely in Escoural. However, to simplify, the inventory of Table 1 is, for all sites, divided in these phases.

There are some observations concerning Table 1. In Escoural, Lejeune's inventory has 26 animals: 17 horses, seven aurochs and two undetermined. Four figures published by Mário Varela Gomes (three horses, one aurochs) must be added, and also the three aurochs revealed by the PAVC team. Regarding Lejeune's inventory, I'd rather consider figures 40 and 42 to be undetermined quadrupeds, not horses, the same with the headless figures 19 (Figure 2-C/D) and 24, interpreted as aurochs by Lejeune. I doubt if figure 47', interpreted as a horse, is not rather a doe and if there isn't a third figure in that assembly, but here I won't change the inventory. As for figures 7 and 60 (Figure 2-G/H), interpreted as aurochs, they look more like horses to me. Figure 59 corresponds, actually, to two horses (Figure 2-I/J). The most outstanding motif is Lejeune's figure 23. Originally considered a human/horse hybrid (GLORY *et al.*, 1965), but later interpreted as two connected and opposed horse's heads (GOMES, 1995: 152-153; LEJEUNE, 1995: 128; 1996: 159), I now consider the original hypothesis to be likelier, albeit uncertain, after

analysing a recent photographic image (Figure 2-A/B). In short, 34 animals: 22 horses (seven painted), seven aurochs (one painted), four undetermined (two painted), and one possible painted horse-headed therianthrope.

In other sites (and referring to the above quoted references), in Costalta, Pousadouro, Mazouco and Vau I follow the interpretations by André Santos. In Vau, the hybrid figure may be a mix of human and deer. In Foz do Tua I consider a deer and a mixed animal: deer's body and upper head, and a second lower head of another animal. This second head was at first that of an aurochs, later transformed into a horse's head. Three incised fish are also mentioned. However, looking at the presented tracing and after visiting the site, this interpretation seems almost certain in one and possible in a second, but too uncertain in the third. In the Côa, the presented numbers result from my own counting in the course of my continuous work in the region. The mixed animal is a horse on rock 11 of Canada do Inferno, transformed into a deer through the addition of antlers. The figure in rock 2 of Vale Videiro has been considered a hybrid of cervid and caprine (cf. SANTOS, 2017: Vol. I - 307; Vol. II - 206), but I simply take it as a caprine.

There are novelties in Fraga do Gato, after renewed observation using *DStretch* treated images. Already mentioned was a black-painted bird, probably a long-eared owl (*Asio otus*), superimposed by a little naturalistic red-painted mustelid. Their attribution to the Upper Palaeolithic was logical but hypothetical: clearly not historical or from the Iron Age, they decidedly do not fit Late Prehistoric Schematic art canons. They could thus be Epipalaeolithic or Palaeolithic, but the bird's naturalism, with some rare cave art parallels (cf. BAPTISTA, 2009: 227) and the possible existence of musteline on the neighbourly Côa art, besides the general style of the figures, suggest a belonging to the Upper Palaeolithic, albeit with a hard to precise chronology.

Although unmentioned in publication, it was a common voice among PAVC researchers that there could be a fish over the mustelid's head

and chest. Being a large red-painted blur, *DStretch* treatment reinforces this hypothesis, without fully confirming it, differentiating a long oval shape where, with good will, one sees a tail and some possible fins (Figure 4-C). As such, the mustelid hypothesis is reinforced, namely as an otter (*Lutra lutra*). More important was the detection to the left of the known figures of at least another figure<sup>6</sup>, black-painted and extremely effaced (Figure 4-B). It is, with reasonable certainty, a caprine, with two distinctive short horns exiting from a possible triangular head, from which also departs an almost straight line composing the back of the animal. It confirms the proposed Palaeolithic chronology and allows for its refinement: the caprine's style, the horn-shape and the straight back suggest a Late Glacial chronology, probably contemporary of the mustelid and fish, the first quite unnaturalistic in a typical Late Glacial manner, the second a common figure in the Côa at this final stage and previously nearly absent. As for the owl, the detail and naturalism suggest a Magdalenian chronology.

Observing Table 1, a tendency is highlighted, which is common to all of Europe, of the absolute domain of four general animal types: equine, bovine, cervine and caprine. However, if it is impossible to know exactly which equine species are represented, bovine are almost always aurochs (*Bos primigenius*), with a single possible bison at the Côa. Cervine figures correspond nearly always to the normal red deer (*Cervus elaphus*), and caprine are one of the Iberian variants of the wild European goat (*Capra pyrenaica*, or similar), usually with the characteristic "S" shaped horns. Exceptions to this tetralogy are almost confined to the Côa, excepting the possible fish in Foz do Tua and, naturally, the remarkable case of Fraga do Gato. But if the four species representation is maintained throughout the Upper Palaeolithic, their relative proportions and relations are not: the early Gravettian/Solutrean phase sees a domain of the pair horse/aurochs, with relative importance of caprine and

<sup>6</sup> To my knowledge, first spotted in 2017 by Carlos Vázquez Marcos, in a visit we made to the site.

minor quantities of cervine. The Magdalenian maintains the importance of the previous pair, but now with a quantitative similar balance of the four. The Late Glacial has the largest quantitative imbalance, with immense domain of cervine, large ascendancy of caprine, relative loss of the importance of horses and the near disappearance of aurochs. In parallel, at the Côa, fish, which are rare in Palaeolithic art, assume an unusual importance, far above aurochs and not far from horses (despite the uncertainty in the identification of several of the fish figures in the Côa). The remaining odd figures are extremely rare throughout all phases, and often share an uncertain interpretation.

There is much to understand in the intricate relation of the different types of animals with each other and with other multiple factors. These include: the specific location of figures in the panels; the topographic location and relation to the surrounding landscape and nearby figures or decorated rocks; the use or not of natural features in figure design (and their large variety); the static nature of many figures compared to the movement imparted to others (which may or not be through animated repetition of body parts); isolated figures contrasting with compositions; the integration of some figures in certain types of scenes (more often representing natural animal associations); the reusing of parts of pre-existent figures to compose new ones; the perceived associations of new animal representations with older ones (sometimes parted by thousands of years); gender issues, with the deliberate affirmation of the masculine or feminine gender of many figures, and with uncertainty in so many others; the (apparent) emotional neutrality of most representations contrasting with the charged emotionality of a handful. More factors exist, since Palaeolithic art, in its seeming simplicity, actually reveals a large and surprising complexity, in many small cumulative details that, in Portugal, are particularly notorious at the Côa.

Connection with the landscape is an important aspect of open-air Palaeolithic art, also with an intricate general picture, with many

questions and few answers. For instance, in small isolated sites, is there a correlation between represented animals and the geomorphological characteristics of the locations? Is it by chance that huge representations of aurochs appear on two distant rocks (Fraga Escrevida, Redor do Porco), both in the middle slope over deep large valleys, in hard to understand location choices? Is it a coincidence that the most spectacular location of a lone rock (Fraga do Gato) also corresponds to the most original open-air paintings presently known, mostly depicting unusual animals in Palaeolithic art? Or, returning to the Côa, and just as an example, it should not again be a coincidence that, on a very specific middle slope sector of the Vale de Moinhos site, only two figures are known - a Magdalenian deer and a Late Glacial doe - separated by several thousand years but on two mutually visible surfaces, even facing each other, something quite rare on the same slope. Still in the Côa, it's hardly coincidental that the main sector of the Ribeira de Piscos site gathers a considerable and very unusual number of figures (animal and human, sometimes integrated in scenes) where the marked and intentional expression of varied emotions can be guessed.

One of the most remarkable aspects of the Côa's glacial art is its maintenance and continuity throughout the long Palaeolithic time. Without any perceptible hiatus along the approximately 20,000 years it endures, several testimonies suggest the enduring knowledge by the successive Palaeolithic communities of the existence of older engravings, with their occasional incorporation in new compositions. Such examples include the relative positioning of later figures in relation with previous ones (whether in decorated surfaces or in the landscape), or the deliberate direct connection of new figures with older ones. Even considering the high number of figures in the Côa, their rate of creation can be considered low, but it was probably steady and, somehow, aware of the past, integrating it into the present in a constant renewal for the future. No general interpretation of Palaeolithic art can pass alongside this long endurance, just as it should not ignore the many small complexities that compose it.

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