Original Study

António Batarda Fernandes*

The Entrapment of Art: Rock-Art, Order, Subversion, Creativity, Meaning, and the Appeal of Illusive Imagery

https://doi.org/10.1515/opar-2018-0017
Received June 1, 2017; accepted December 13, 2017

Abstract: Bringing together apparently opposing modern and post-modern approaches to interpretation is one of the challenges that lie ahead for rock-art studies. This endeavour may help to surmount 'no interpretation is possible' stances (see Bednarik, 2014) and to value rock-art as a diverse and complex phenomenon where precise significance is concealed within multiple meaning-carrying conveyors. The idea that different rock-art traditions (as with any other art form) made use of a given set of symbols (also) aiming to enforce an 'imagined' order is instrumental to the present paper. Ancient imagery, despite precise production contexts, materializes the need to resort to visual symbols in order to help maintain social concord, regardless of exact meaning. However, this is a dynamic process; whenever there is an effort to uphold a certain set of moral and social complying principles, there are also nonconformist and subversive attempts to challenge and mutate that same collection of rules.

Keywords: Côa Valley; Rock-art; Upper Palaeolithic; Subversion; Creativity

1 Introduction

The preamble of the conference that originated the present collection of essays states that "as anatomically modern humans (*Homo sapiens*) we share the same neurophysiological capacities as our ancestors." Thus, these shared abilities can foster a "new understanding of prehistoric visual imagery." The present author has previously defended that indeed there is the possibility of identifying 'universal intelligibility' traits in the art of *other* cultures and societies (Fernandes, 2016). Picasso has famously stated that a work of art that cannot live in the present is of no interest (Picasso, 1923). The several meetings, books, papers and projects dedicated each year to rock-art, popular culture references, and, perhaps more importantly, the millions of visitors who experience sites displaying such imagery all over the world prove that prehistoric art is today a focus of continuous interest.

The author has previously suggested that "in a way, it does not matter what the images meant. Rather, it is a case of how today they are perceived to have meant to their creators" (Fernandes, 2016, p. 28). This realization, it was concluded, "may help to bridge the gap between purely mechanical 'cause-effect' approaches to rock-art interpretation and the mere description of motifs" (*ibidem*). Taking one step further,

Article note: This article is a part of Topical Issue on From Line to Colour: Social Context and Visual Communication of Prehistoric Art edited by Liliana Janik and Simon Kaner.

***Corresponding author: António Batarda Fernandes,** Côa Park Foundation, 5150-620 Vila Nova de Foz Côa, Portugal/Postdoctoral research fellow, Department of Archaeology, Anthropology and Forensic Science, Bournemouth University, UK/Investigador Integrado Centro de Estudos de Arqueologia, Artes e Ciências do Património, Universidade de Coimbra. antoniobatarda@arte-coa.pt

the ubiquitous symbolical dimension of rock-art imagery is a central premise of the present paper, regardless of its specific connotations and production circumstances. This is not to accept that any interpretation is valid, but that precise meaning does not matter the most. It matters that the images have meant (and, as noted, still mean).

Drawing on the Côa Valley Upper Palaeolithic artistic complex in Portugal, this essay attempts to determine if subversive formal elements can be identified in Gravettean-Solutrean rock-art imagery. Towards that goal, it will be examined why it is believed that rock-art imagery is (also) constituted by a set of symbols conveying and promoting social order. It is discussed how these aesthetically appealing symbols took advantage of *Sapiens sapiens*' need for rewarding, and thus escapist, experiences in order to get the embedded message across more effectively. Finally, it will be argued that mastering the art of creating and interpreting ambiguous imagery that served both conformist and confronting purposes significantly contributed to make the species fully *human*.

2 The Symbolic Dimension of Rock-Art

Today it is quite straightforward to assert that "what most clearly distinguishes the human species from other life forms is our ability to use *symbols*" (Renfrew & Bahn, 2000, p. 385; emphasis in original). Nevertheless, it was in the 1960s with the first publications of Laming-Empaire (1962) and Leroi-Gourhan (1964) on the application of structuralism to cave art interpretation that the symbolic dimension has been brought centre stage in rock-art interpretation. Even though the model, which proposed the presence of opposing pairs of signs and was applied to specific case studies discussing the spatial organization of Upper Palaeolithic cave art in France, proved to be inconsistent (Bahn, 2016, pp. 97–101, 303–304), the approach had the merit of suggesting the existence in those particular ensembles of precise interrelated symbols used within coherent belief systems. Indeed, it can be submitted that there is almost nothing haphazard in Western European Upper Palaeolithic rock-art, namely in the choice of depicted themes (overwhelmingly large herbivores), in the precise spots selected to receive engraved and/or painted motifs, and in their stereotypical nature.

Noting the role of symbols in negotiated order processes (Strauss, 1978), it is worth mentioning that current post-processualist approaches argue, as a broad point, that individuals attempt to manipulate recognized societal regulations to their benefit. These individuals often bring about change to those same rules or even trigger major social shifts, rather than just being submissive actors who limit themselves to abide. Thus, society is perceived to be *conflict-driven* (Johnson, 1999, pp. 104–105; Renfrew & Bahn, 2000, pp. 492–496).

Nonetheless, it should be recognized that the functions rock-art may have performed, as well as meanings it conveyed, are unrecoverable to modern interpretation. This need not be too dire of a perspective, despite what some suggest (Bednarik, 2014), since, as Laurent Olivier demands when challenging the commodification of archaeological practice, it might allow its practitioners (namely those studying rock-art) to ""re-enchant" the past (...) restoring its sense of strangeness and indecipherability" (2013, p. 39; author's translation). On the other hand, visitors expect meaningful stories (even if not totally decipherable!) to be told about what they are experiencing *in loco*, since rock-art imagery is shown to increasing audiences around the world. In that regard, efforts to further raise awareness on the importance of preserving rock-art also must rely on the capacity to broadly involve the public when *interpreting* ancient imagery. The ability to present engaging *stories* is what fosters the public's engagement in rock-art, its interpretation also emphasizing its significance.

Tim Ingold has drawn attention to a double standard in anthropological discourse regarding how otherness is perceived in scientific attempts to understand different societies:

> "Anthropologists have a habit of insisting that there is something essentially linear about the way people in modern Western societies comprehend the passage of history, generations and time. (...) Alterity, we are told, is non-linear." (Ingold, 2007, p. 2)

As the author has defended elsewhere (Fernandes, 2016) in regards to rock-art interpretation, it is not possible to have the cake and eat it: if indeed past beliefs and intentions determining rock-art production

are impossible to attain, then any attempt to interpret prehistoric imagery is utterly pointless! Even an extremely reductionist view – "there is something engraved/painted in that stone surface, but I couldn't say what it is" – in itself offers some degree of interpretation, since "there is something"…

The major issue here is that rock-art researchers are arguably tied to a politically correct stance that echoes Ingold's admonition. On the one hand, the use of the word 'art' is robustly questioned when referring to imagery produced by ancestral and/or *other* societies that might not have possessed or possess such a concept or one similar to it (see Moro Abadía & González Morales, 2007 for a review of the debate on the issue). Yet, on the other, many efforts *do* occur to interpret and apply concepts that are also not possible to ascertain if past rock-art-producing societies possessed. For instance, researchers describe Western European Upper Palaeolithic zoomorphic rock-art imagery as animals and the exact species is almost always identified, despite the ambiguity of some figures, in an attempt to comprehensively interpret the imagery. But, how is it feasible to know if a concept equal or even analogous to what today is understood by "horse" existed in the minds of original artists and in the common thought processes shared by the societies to which they belonged? Therefore, it is suggested, in line with what other authors have noted (Bahn, 2016), an interpretation process that *today* recognizes an approachable universal dimension in artistic manifestations and uses a critical dialectic approach when considering the vast diachrony of human complexity is fundamental to enhance contemporary understanding of prehistoric rock-art (Fernandes, 2016).

Concerning diachronic and synchronic approaches to rock-art interpretation, it has been argued that "while the conscious enforces concepts in a synchronic fashion, (…) the materialization of unconscious activity is truly universal and crosses time boundaries" (Fernandes, 2016, p. 15). As Bernstein suggests regarding post-modern art, prehistoric imagery should also be questioned "asking not what art is, ahistorically, but what it has been and [will] become" (1992, p. 4). In this light, subversive intent is seen as entailing an "attempt to transform the relations of the imaginary and the symbolic (…) try[ing] to set up possibilities for radical cultural transformation by making fluid the relations between these realms, suggesting, or projecting, *the dissolution of the symbolic*" (Jackson, 2013, p. 91; author's emphasis). This ultimately results, as Bernstein puts it, in "*the alienation of art from truth*" (1992, p. 4; author's emphasis). To further make this point clear, it is noteworthy to mention that modern cognitive science suggests that reality, as perceived by human eyes, is not at all *bona fide*, but an illusion created as a result of evolution in order to get the most out of evolutionary fitness by not valuing or even hiding *veridical* perceptions (Mark, Marion, & Hoffman, 2010).

Hence, the symbolic dimension of rock-art, as referred to in this paper, should be considered to be both a conscious and unconscious (Fernandes, 2016) canvas where, through mental imaging processes, visually recognizable forms – veiling more or less intricate, superimposed or even veridical layers of meaning – are given to empirical perceptions, drawn primarily from the natural *other* outside world. Part of the larger and evidently still ongoing process of species evolution, this projection mechanism, known as (the capability for) abstraction, seeks to read, alter and structure 'reality' according to the requirements of specific, on the one hand cultural, social or ideological contexts (McNiven & Brady, 2012, p. 76), but also of individual (and/or small groups) agency agendas. On this last point, see Guy's suggestion likening Upper Palaeolithic rock-art symbols to ruling elites 'heraldic' crests as a function-meaning attribution hypothesis (2017).

Lastly, it is often stated that art always has contained subversive elements that defy *status quo* and its conventions (Becker, 1994; Diamond, 1982). Perhaps contemporary art is recognized more easily as carrying such elements, but defiance of accepted order can be seen in the artistic manifestations of different periods as, for instance, in Roman (D'Ambra, 1993; Trentin, 2015) or medieval times (Camille, 1992; Maguire & Maguire, 2007). To frame the issue within the scope of this paper, subversion in art is understood to be what challenges the conventions contained in, but also imposed by, human-produced and/or -experienced objects deemed worthy of aesthetic appreciation in any given age and/or society. Thus, subversive intent can be seen as a major force behind change in art forms, meanings, and symbolism.

3 Côa Gravettean-Solutrean Rock-Art Symbols

The Côa Upper Palaeolithic open-air rock-art complex in Portugal is a significant case study where evidence from the Gravettean-Solutrean period (circa 25,000 to 18,000 years BP) strongly suggests an important symbolic dimension present in the most ancient imagery at the site (Bahn, 2016, pp. 201–216; Baptista, 2009; Baptista & Fernandes, 2007; Santos, 2012, 2017) (see Figure 1). Located in northeastern Portugal, the final tract of the Côa River possesses a vast collection of motifs from different prehistoric and historic periods totalling more than 80 different rock-art sites in an area of circa 200 km^2. The number of engraved schist outcrops (and, in far fewer instances, granite panels) amounts to over a thousand, comprising around 10,000 individual motifs (Reis, 2014). However, the period of interest to the present paper, the Gravettean-Solutrean, comprises 88 engraved outcrops tallying some 600 individual motifs (Fernandes, Reis, Escudero Remirez, & Vázquez Marcos, 2017). The number of Gravettean-Solutrean non-naturalist motifs usually referred to as 'signs' (less than 5%), not considered in the present paper due to their residual number, is included in the above-mentioned count. All other motifs from this period comprise solely zoomorphic depictions (Fernandes et al., 2017; Mário Reis personal communication).

It has been suggested that rock-art during the Côa's most ancient artistic period played a significant role in the structuration and organization of intragroup and/or intergroup social relationships. Placing symbols in given environments and strategic locales, such as occurs at Côa with the majority of rock-art motifs located on river margins, is part of the dwelling process by which *inhabited* landscapes are experienced, are lived in, and where social interactions unfold (Santos, 2012, p. 62). Considering the intervisibility of rock-art figures, and therefore also its public nature, specially the rapport motifs establish amongst different engraved outcrops, a compelling argument for viewing the Côa as having functioned as an important aggregation site during this period – a 'sanctuary' of sorts 'complete' with 'pilgrimage' paths – was put forward (Baptista, Santos, & Correia, 2006, 2008a, 2008b).

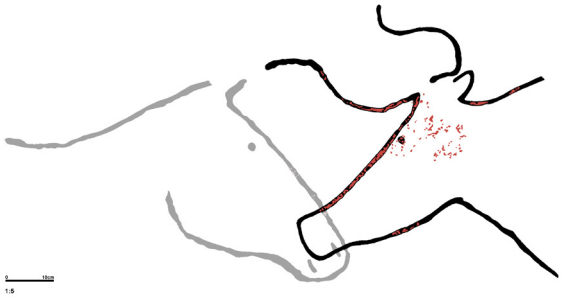

Figure 1. Faia Rock 6, Côa Valley, Portugal. Entangled horse and aurochs depiction strongly suggesting the association of those two symbols. Tracing: Fernando Barbosa, assisted by João Félix, Manuel Almeida and Marcos García.

Archaeological research during the last 20 years at the Côa Valley has reinforced this suggestion: the sources of exotic raw lithic material found in the most ancient Upper Palaeolithic occupation layers in the area range all the way from the region of Madrid to the region of Lisbon (Aubry, Luís, Mangado Llach, & Matias, 2012). Drawing on these finds, these authors present a multi-layered occupation model of the area by different groups pointing that "the Côa Valley could have been an aggregation area, where dispersed bands would seasonally come together to fulfil their economic, social and cultural needs" (Aubry et al., 2012, p. 503).

Bearing in mind what has been discussed, there are three main reasons for proposing that an important symbolic intention was present in the Côa rock-art in Gravettean-Solutrean times. These are examined in the following paragraphs together with a succinct discussion on what is known regarding these issues in the rock-art of the same period in Western Europe, namely in Iberia.

Represented themes – As elsewhere in Western European Upper Palaeolithic rock-art (Bahn, 2016, pp. 217–274; Leroi-Gourhan, 1992, pp. 369–376), at Côa there is a blatant recurrence of subjects chosen to

be depicted. Indeed, large- and medium-sized herbivores constitute the majority of themes painted and engraved at both open-air and cave sites. While in Franc-Cantabrian cave art a few carnivores, such as felines, are depicted, at the Côa Valley four herbivorous animal species are known to have been the most engraved: horse, aurochs, caprids and deer (Figures 2 to 5) (Baptista, 2009; Luís, 2008; Santos, 2012, 2017). Recent research added a bird, a few more fish depictions to what was believed to be the single existing fish motif (Figure 6) and a likely bear to the tally (Santos, 2015, p. 83). Cold-climate-adapted large herbivores, such as woolly rhinoceros, mammoths and bison, which are present at French and Spanish caves, are absent from the Côa bestiary.

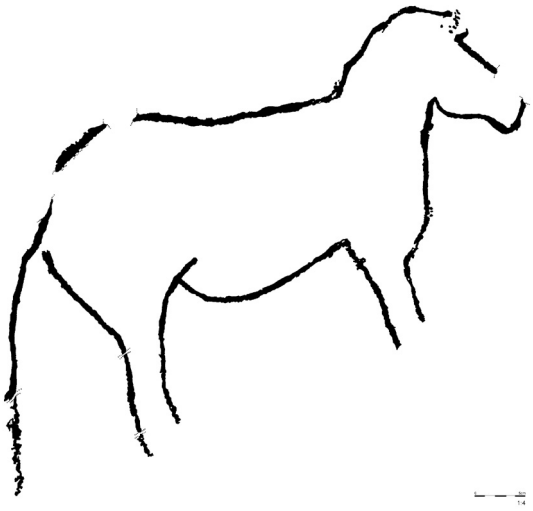

Figure 2. Canada do Inferno Rock 26, Côa Valley, Portugal. Horse depiction. Tracing: Fernando Barbosa, assisted by Manuel Almeida and António Martinho Baptista.

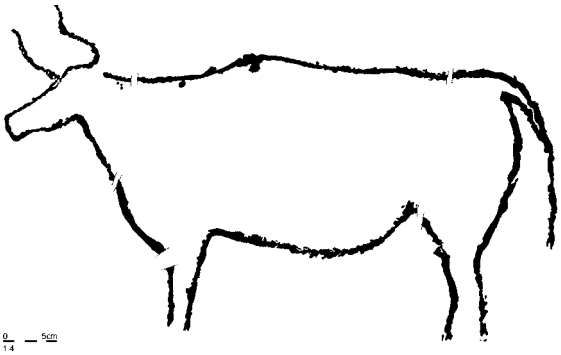

Figure 3. Canada do Inferno Rock 1, Côa Valley, Portugal. Aurochs depiction. See also engraving phase 5 in Figure 14. Tracing: Fernando Barbosa, assisted by João Félix and Teresa Fonseca.

Figure 4. Fariseu Rock 1, Côa Valley, Portugal. Goat depiction. See also engraving phase 1 in Figure 14, and Figure 15. Tracing: Fernando Barbosa, assisted by Manuel Almeida, João Félix and André Tomás Santos.

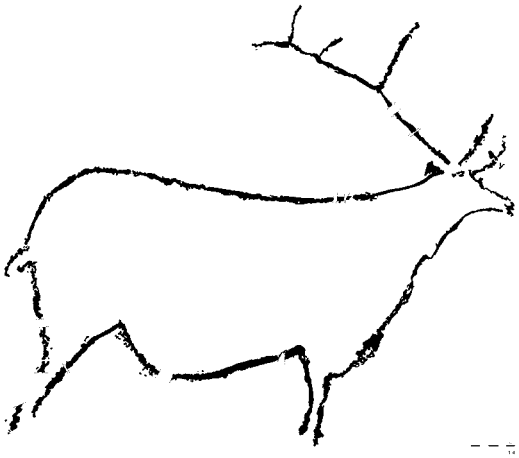

Figure 5. Canada do Inferno Rock 26, Côa Valley, Portugal. Deer depiction. Tracing: Fernando Barbosa, assisted by Manuel Almeida and António Martinho Baptista.

Figure 6. Fish motif in Penascosa Rock 5, Côa Valley, Portugal. This was the only known fish depiction attributed to the Gravettean-Solutrean period until recent discoveries occurred (Santos, 2015, p. 83). Tracing: Fernando Barbosa, assisted by Manuel Almeida and António Martinho Baptista.

It is important to note that the neighbouring also open-air rock-art Spanish site of Siega Verde possesses a few motifs absent from the Côa, such as a unique representation of a canid (Alcolea González & Balbín Behrmann, 2006, p. 182, 231). Nevertheless, the most depicted species coincide at Côa and Siega Verde (Alcolea González & Balbín Behrmann, 2007, pp. 519–520) as well as at other sites relatively nearby to the Côa on the Portuguese side of the border, namely in the Sabor and Ocreza rivers (Baptista, 2009, pp. 190–229). The singular case of Foz Tua (Valdez-Tullett, 2016) will be addressed in further detail below.

Considering this very limited set of represented themes, if a symbolic intention is not considered to have driven the depiction of the precise zoomorphic motifs, then it would be quite difficult to attempt to answer why no other subjects have been represented at all in the Côa and other sites during the period in question.

Superposition of motifs – Again as elsewhere in Western European Upper Palaeolithic rock-art (Leroi-Gourhan, 1992, pp. 352–353; Bahn, 2016, pp. 165–168), the Côa features a significant percentage of panels featuring superimposed motifs (Luís, 2008; Santos, 2017). The present author has argued before that it is odd that, out of many available 'engravable' outcrops, only some have been the object of artistic attention during the Gravettean-Solutrean period (Figure 7; see also Fernandes, 2017 and Fernandes et al., 2017 regarding the past and present condition of Côa rock-art outcrops). The same can be said considering French and Spanish rock-art of similar chronology, as there are countless cave or, in more limited numbers, open-air panels in which just a few of the nearby available surfaces were painted or engraved. Even if in the case of *some* open-air rock-art sites it is difficult to consider present configuration of panels to be similar or even identical to the existing one during Upper Palaeolithic engraving or painting episodes, the much better-

preserved corpus of cave art strongly suggests very little alteration in the walls or ceilings where imagery survives and was deliberately placed (Fernandes et al., 2017, p. 294). As mentioned, French structuralist authors have attributed this fact to the symbolic spatial organization that human communities may have enforced in those particular sites at the time.

Figure 7. Partial view of the Canada do Inferno rock-art site, Côa Valley, Portugal. Note that some of the observable outcrops in the photo possess rock-art motifs (from the most ancient period at Côa or from more recent times) while others do not. Photo: Mário Reis.

At Côa, the author proposed that particular characteristics of outcrops (for instance, pre-existent natural shapes or fractures, prominent location or aspect) could have been important to determine those in which imagery was to be inscribed (Fernandes, 2008, 2016, 2017; Fernandes et al., 2017). More important to the scope of this paper than the choice of particular outcrops over others is the fact that there are surfaces in which humans superimposed most, if not all, motifs on each other in relatively minute and prominent areas while appearing to leave the remaining areas void of any inscriptions (see Figures 8 and 9).

Figure 8. Canada do Inferno Rock 1, Côa Valley, Portugal. Note the concentration of motifs on the most prominent area of the outcrops. See also Figure 13. Photos: Mário Reis.

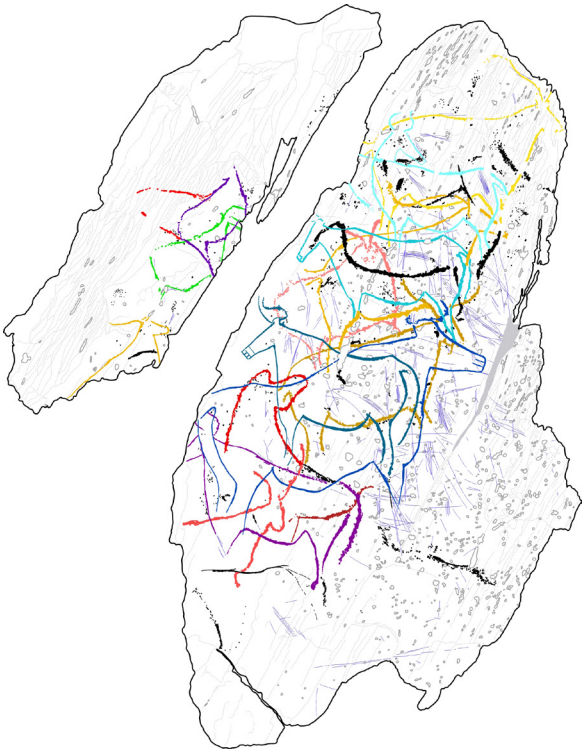

Figure 9. Motifs on Penascosa Rock 3, Côa Valley, Portugal. Tracing: António Martinho Baptista, Fernando Barbosa and Mário Varela Gomes, assisted by Manuel Almeida, João Félix and Cristina Gaspar.

These sometimes quite intricate concentrations of lines in certain outcrops (or caves) *and* in particular areas of panels (or surfaces of caves) have to be valued as another characterizing feature in the symbolic use(s) of rock-art, insofar as motifs were inscribed atop previous ones in order to acquire or maintain a symbolic efficiency for the depicted image (see Figure 10; see also Discussion: Part I for other possible interpretations regarding *Superposition of motifs*).

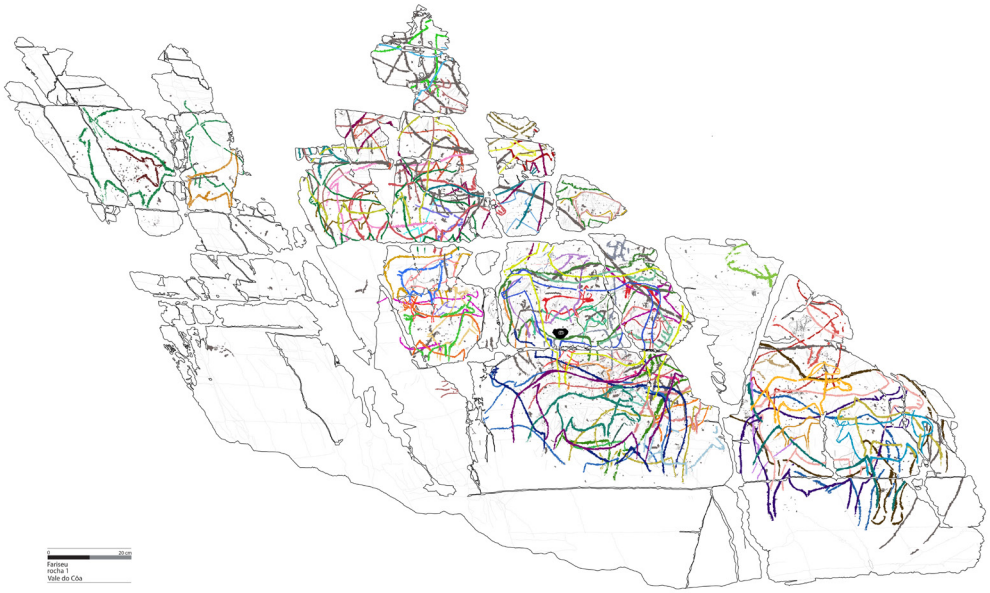

Figure 10. Fariseu Rock 1, Côa Valley, Portugal. This heavily superimposed surface possesses a multitude of engraved motifs. Tracing: Fernando Barbosa, assisted by Manuel Almeida, João Félix and André Tomás Santos.

Stereotypical nature of motifs – Yet again as elsewhere in Western European Upper Palaeolithic rock-art (Bahn 2016, pp. 217–274; Leroi-Gourhan 1992, pp. 369–374), Gravettean-Solutrean motifs at Côa possess a stereotypical character patent in the recurrent fashion in which anatomical details of animals are represented or are absent (see Luís, 2008, pp. 69–71; Luís et al., 2015; Santos, 2012, 2017). Considering the four most depicted species, it is possible to recognize artistic canons that are followed in the naturalistic depiction of each, namely in panels featuring a complex accumulation of motifs:

Horses (see Figure 2) are often depicted presenting a marked round jaw, muzzle, mane, and a long tail. Moreover, an arched backline and round abdomens are also noticeable.

Aurochs (see Figure 3) depictions comprise a more tapering head with a less pronounced jaw than those of horse representations. Aurochs' horns are depicted in classic lyre-shaped semi-frontal twisted perspective. The hip bone, as well as the beginning of the neck, are clearly depicted. Aurochs' tails are usually smaller than those of horses and in some cases not depicted at all.

Caprids (see Figure 4) possess a triangular head shape and nearly all exhibit horns, either large- or small-sized ones. However, these are depicted in two different fashions: completely in profile just showing a single S-shaped horn or featuring two completely open horns. The difference in the shape and size of the horns may be attributed to different gender and/or subspecies depiction. Goats' tails are much smaller than those of horses or aurochs and are depicted with two, at times three, small lines. Chamois, of which only a few examples are known, all exhibit particularly shaped horns, either very curved or composed of two intersecting lines that form a 90º angle (see Figure 11). This distinctive trait was essential for subspecies attribution.

Figure 11. Chamois depiction in Fariseu Rock 1, Côa Valley, Portugal. Tracing: Fernando Barbosa, assisted by Manuel Almeida, João Félix and André Tomás Santos.

Deer (see Figure 5) motifs are frequently portrayed in the full magnificence of their antlers, clearly indicating the gender of the represented individual. These motifs often include a tail made by two lines. However, since deer are the least depicted animal of the four prevailing species in Gravettean-Solutrean art, their canonical attributes during this stage are less marked than when considering the two or even three most represented beasts.

It should be emphasized that noticeably dissimilar details in the depiction of the same species might be attributable to gender differentiation, namely in deer and caprids and to some extent in aurochs, with the presence or absence of horns/antlers, or smaller-sized exemplars of the former anatomical attributes. An important trait must be highlighted: very rarely are the hoofs represented regardless of species. Besides what is suggested below, this peculiarity shows that the zoomorphic depictions of the period tend to be naturalistic, as they attempt to accurately follow the most recognizable anatomical attributes (mane, jaws or muzzles) *while* also comprising less realistic yet canonical elements, such as the absence of hoofs or, in some cases, excessive tail length in equine figures and slightly disproportional smaller leg extent.

The data detailed above suggests significant insights regarding the symbolical dimension of Gravettean-Solutrean Côa Valley rock-art. Furthermore, most European rock-art of the same period shares these three features with Côa, although regional dissimilarities exist in depicted species, the frequency of superposition within the same open-air site/cave, and canonical standards. Nonetheless, large herbivores, namely the 'sacred tetralogy' (bovines, equines, caprids, and cervids), constitute the vast majority of depicted creatures, complex accumulations of motifs occur and precise stereotyped forms can be easily recognized (such as the lyre-shaped aurochs' horns) (Bahn, 2016). Discussed examples further suggest that "in traditional societies, (...) art appears to embody time-honoured, god-given, or ancestor-approved forms" (Boyd, 2009, p. 119).

4 Discussion

4.1 Part I: Subverting Symbolism in Gravettean-Solutrean Côa Valley Rock-Art

It is important to commence this section by pointing out that the present discussion is informed and shaped by the imagery that has survived and is available to study and interpret today. Nevertheless, it is believed that the most ancient Côa rock-art reached present times presenting a reasonably low percentage of overall motif loss (Fernandes, 2014, 2017; Fernandes et al., 2017).

It is put forward that the variations in *Represented themes* offer support regarding the subversive intent present in rock-art production at Côa. The four most depicted species constituted the most important symbols, even if some were more relevant than others, as suggested by the considerably lower number of deer representations. The fish representation in Penascosa Rock 5 (Figure 6) can thus be regarded as having been tried as a challenge to the most depicted symbols, as an (unsuccessful) attempt to establish other narrative-carrying forms. Likewise, the same can be suggested regarding chamois depictions, nevertheless a subspecies belonging to the *caprinae* genus. However, it is fairly problematic to state that dissimilarly themed additions could have had *only* subversive intents; these could also have been concomitantly used to solidify social cohesion by symbolically overcoming divergences when associating these with the other more 'powerful' symbols.

A particularly striking example comes from an isolated find near to the Côa Valley, Foz Tua panel 31, strategically located at the mouth of another tributary of the Douro River. In this location, a Gravettean-Solutrean canonical style quadruped engraved body, most likely of a deer (Santos 2017, vol. I, pp. 85, 363-364), which compares quite well with similar Côa motifs, has been depicted featuring heads of not one or two, but three different species: aurochs, horse, and deer (Valdez-Tullett, 2016, pp. 66–69). In this case, subversive intent can be perceived to have promoted a modification of the quintessence of the depicted symbol by updating its theme, and thus subverting previous meaning, not once but twice. If signs (and a symbol is *primarily* a sign) have a precise signification that auto-excludes all others, then symbols can have several layers of meaning (Womack, 2005). The interstices between these layers are where ambiguous content can be placed, in accordance to but also questioning a certain dynamic relation of *political* forces, such as the case of the multi-meaningful Foz Tua panel.

It is suggested that *Superposition of motifs* is also an interesting trait when considering possible subversive intents. One of the researchers studying the Côa Valley rock-art created the concept of "structured accumulation in illusory device" regarding the intentional superposition of motifs (Baptista, 2009, p. 142; author's translation; see also Aubry et al., 2014). Regarding the panels where considerable numbers of motifs have been engraved, Baptista suggests that:

> "(...) the figures are more than simply superimposed and the panel more than simply increasingly difficult to read as the accumulation proceeded. In fact, there seems to be a re-appropriation of the older motifs, taking advantage of pre-existing lines, which are re-engraved and re-used in the elaboration of later figures" (Baptista 2009, p. 142)

This re-appropriation can be regarded as an act of subverting meaning and, as older lines are reutilized, creating new signification. Even if, conversely, reutilization can be understood as an attempt to reinforce

original meaning, it is noted that an existing motif carried a certain symbolic connotation that necessarily changed when re-appropriation took place. If this is true for motifs analyzed individually, then it is also valid when considering entire panels, which comprise a certain number of figures that establish connections with one another. The addition of more motifs, whether they re-appropriated older figures or not, further increased the complexity of the panel as a whole. Furthermore, the highly intricate superposition of motifs can foster pareidolia, which traditionally is seen as going hand-in-hand with religious and/or mystical ecstatic experiences (Wightman, 2015). It may even be seen as constituting a sort of reversely engineered *ludus naturae* brought about by this re-manipulation of engraved symbols, as if the makers purposely sought to convey ambiguity in meaning and intelligibility of the whole panel and also of individual figures. Superposition and the re-appropriation of motifs, therefore, further suggest the clear intentionality behind rock-art production at Côa during the considered period. To the rock-art-producing society in question, it appears that it was important to keep on adding layers of intertwined significance (even if purposively ambiguous), since the need to embed dynamic and thus evolving symbolic meaning would supersede the yet paramount aesthetic concerns patent in the highly achieved and enjoyable nature of most rock-art motifs.

Another argument for subversive intent can be found within the *Stereotypical nature of motifs*. As mentioned above, the majority of figures depicting the anatomical attributes of the most represented animals follow an artistic canon (see Figures 2 to 5). Individual motifs that do not follow one or more representational characters of each canon can therefore be considered to indicate subversive content. Examining such instances does not require a statistical approach listing all individual occurrences. It is suggested that the existence of a few, or just one, instances of each of the following items helps build the case for attempted conscious subversion of norms:

- *Motion depiction* at Côa's most ancient period has been examined previously in a co-authored paper (Luís & Fernandes, 2010). It was proposed that motion depiction techniques were used to render more effective the mythical and moral-bearing dimensions of narratives conveyed by rock-art imagery (Fernandes, 2016). However, it also can be argued that the production of the first composition that made use of the perhaps most notorious and ingenious motion depiction technique at Côa (animals drawn with two or even three heads; see Figure 12) implied a momentous challenge to what could have been an important trait of *a* conventional canon: *one* animal, *one* head. In cases when a relative chronology is possible to establish for superimposed motifs located at densely engraved panels, available evidence suggests that, within Gravettean-Solutrean art, animals featuring heads in motion are among the most recent motifs engraved on those same panels. Such are the cases of Penascosa Rock 3 or Canada do Inferno Rock 1 (see Figures 13 and 14). Hence, when these motifs were executed, previous and, it is suggested, *canon-complying* motifs already existed at those panels featuring just one head. Moreover, the previously discussed case of the Foz Tua panel, in which two of the three distinct species' heads also appear to depict motion and to have been made in different moments (Valdez-Tullett, 2016, pp. 66–69), and the two-headed goat present in Penascosa Rock 5 (see Figure 15) provide furthers examples of posterior alteration of an original convention-following zoomorphic depictions;
- *Depiction of hoofs*. As noted above, at the Côa, the depicted large herbivore species are overwhelmingly represented without hoofs. In fact, just one hoofed example within Gravettean-Solutrean rock-art is known: an incomplete quadruped motif (probably a horse) at Fariseu Rock 1 (see Figure 16). If the canon comprises the non-depiction of hoofs, this case can be valued within a (failed) dissident framework of artistic intention;
- *Incomplete motifs*. The minority of motifs that were *purposely* left uncompleted suggests subversive intent, since what can be understood as the canon (complete portrayal of depicted animals' body, even if without hoofs) was not followed totally. Under consideration are only those motifs that have not partially lost body sections in the course of the millennia due to natural causes or human intervention. Besides those relatively frequent cases, there are instances where it is straightforward to conclude that just portions of complete animals were engraved (see Figure 17). Even if it can be proposed that these motifs are not, in fact, unfinished, but as depicting only what was considered at the time sufficient for the motif to be seen as *complete* and conveying 'adequate' symbolical power, these constitute a deviation from the standard canon followed by most imagery at Côa, i.e. animals tending to be represented in their entirety, hoofs excluded.

Figure 12. Motifs on Penascosa Rock 4, Côa Valley, Portugal. Tracing: Mário Varela Gomes, assisted by João Félix and Cristina Gaspar.

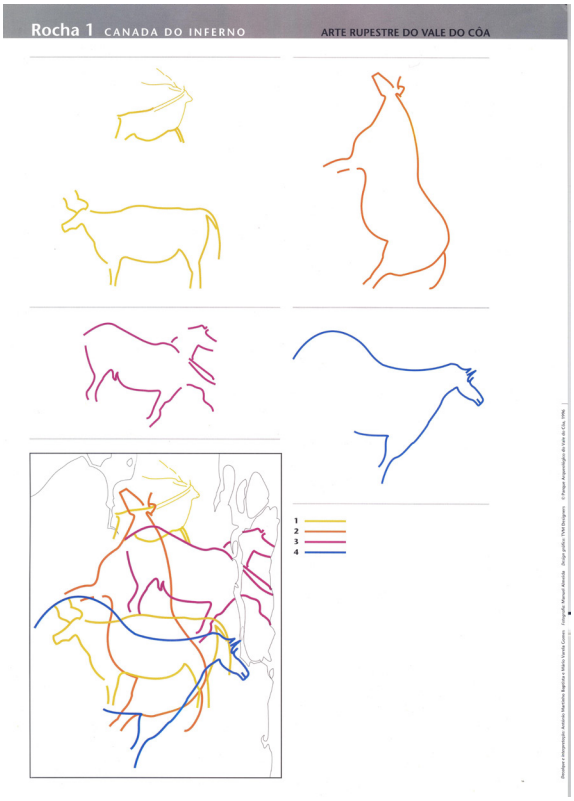

Figure 13. Relative chronology of superimposed motifs in Canada do Inferno Rock 1, from 1 (oldest) to 4 (youngest). The two-headed horse motif depicting motion belongs to the panel's third engraving phase. Drawing in Zilhão (1997, p. 265).

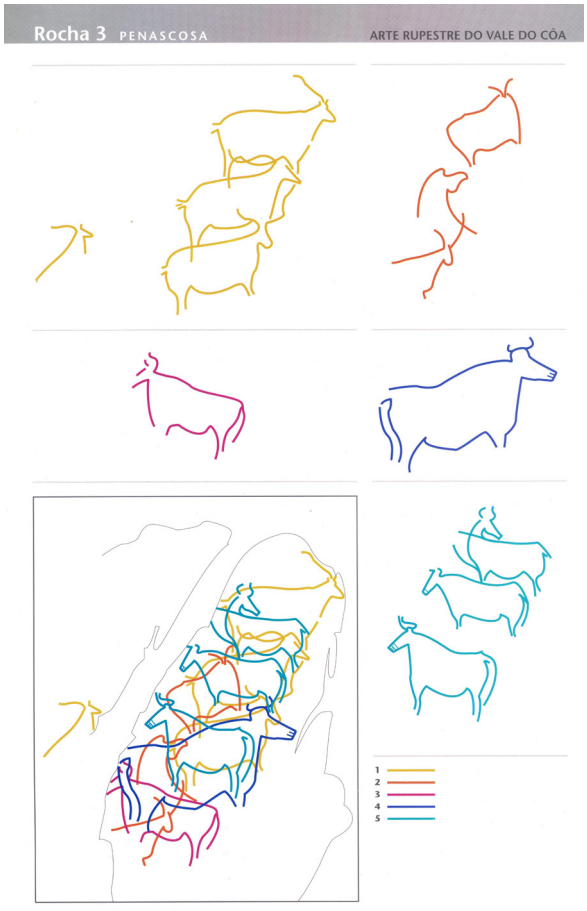

Figure 14. Relative chronology of superimposed motifs in Penascosa Rock 3, from 1 (oldest) to 5 (youngest). The two-headed aurochs motif depicting motion belongs to the panel's last engraving phase. Drawing in Zilhão (1997, p. 381).

Figure 15. Two-headed goat motif in Penascosa Rock 5. Note also the three-lines tail. Photo: Mário Reis.

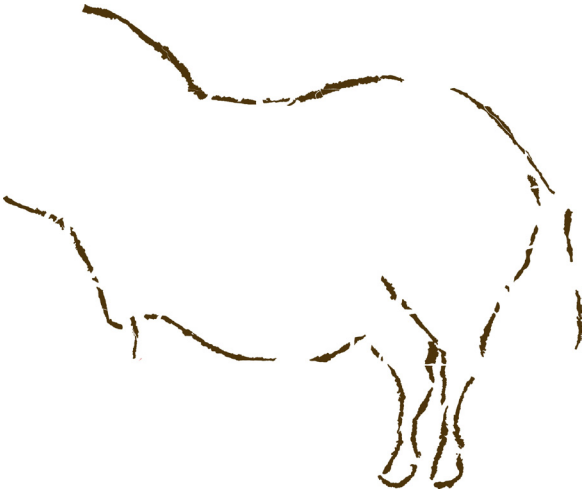

Figure 16. Incomplete but hoofed motif (probably a horse) at Fariseu Rock 1 Tracing: Fernando Barbosa, assisted by Manuel Almeida, João Félix and André Tomás Santos.

Figure 17. Depiction of a horse's head and neck in Penascosa Rock 3. As in Figure 2 note the shape of the animal's head and the well-defined mane. Tracing: António Martinho Baptista, Fernando Barbosa and Mário Varela Gomes, assisted by Manuel Almeida, João Félix and Cristina Gaspar.

While these characteristics are open to different interpretative paths that necessarily will lead towards valuing them as phenomena that are best explained through a consideration of diverse historiographic theoretical paradigms, *what was depicted*, *where* and *how* are believed to have resulted from deliberate choice (see Fernandes, 2008, 2017; Fernandes et al., 2017). For instance, *Superposition of motifs* might be valued within interpretative frameworks that view superpositions as enhancement, enlightenment or expression of perspectives amongst figures as an attempt to provide depth or three-dimensional qualities to imagery, and/or to depict narratives or a series of events. Yet other approaches might highlight that superimposing figures can be seen as an effort to connect, avoid, or deface previous imagery, or even as comic relief. As a broad point, it should be noted that all these different interpretation paths need not be mutually exclusive; the multiple layers of significance that the imagery is believed to contain can perhaps be approached better if non-singular accumulation of meaning is considered.

Subversive intent in *Superposition of motifs*, as argued in the present paper, thus can be seen as yet another stage within the dynamic societal processes by which meaning is renewed. These processes result in an accumulation that might have comprised other *intertwined* connotations. For example, to connect, to deface, or to make a comic point is to subvert the significance of previously engraved motifs. Adding new narratives, or even new characters to older stories, can also be seen as an act that subverts previous instated meaning (see Figures 8, 9, 10, 13 and 14).

On the other hand, new additions are thought to have been accomplished during specific but different engraving episodes, as already noted for Rocks 1 in Canada do Inferno or 3 in Penascosa (see Figures 13 and 14). Hence, if the intent was to provide perspective, three-dimensional depth, or depict a series of events, then that goal was decided (well) after the original motifs, or particular assemblages of motifs, were engraved. Therefore, even if these later additions were done, for argument's sake, in an entirely unwitting fashion regarding the previous existing motifs (that nonetheless is not believed to have been the case), the momentary, and thus not final, end-result subverted the original meaning and/or the assemblage of meanings. Considering what has been discussed in the previous two paragraphs, it is put forward that these actions unfolded within forceful overall political conciliation processes. Such a view allows scholars to consider the nuances present in this imagery not on a case-by-case approach where current interpretation and original meaning are irreconcilable, but as a part of broader individual/collective endeavours that resorted to the appeal of visual symbols in order to get meaning across. Thus, in this sense, as will be discussed further in the next section, what is seen as the most important function of (these) symbols is not transmission of precise meaning, but the promise of successful delivery, potential acceptance, and social compliance.

4.2 Part II: Order, Subversion, Creativity, Meaning, and the Appeal of Illusive Imagery

The scope of this paper does not address what was the exact meaning of depicted symbols, although, following what was discussed above, it is clear that the signs were meant to mean *what* was depicted (*Themes*), *where* they were placed (*Superposition*), and *how* they were accomplished (*Style*). Moreover, when considering thematic constancy, a sort of group identification can be envisaged to be present in the used symbolical kit. The use of such a restricted set of 'icons' suggests the existence of different identity groupings during the regional Upper Palaeolithic, even if social complexity would be less intricate, due to low human population numbers, as Bocquet-Appel, Demars, Noiret, & Dobrowsky note regarding Europe overall (2005). Accordingly, it can be argued that distinctive traits between dissimilar groups (within the same community or constituting diverse communities, i.e. 'band' or 'clan') are reflected in the limited set of used symbols that nonetheless carried 'universal' currency.

It is difficult to identify the existence of even proto-ruling classes during the Western European Upper Palaeolithic (Gilman, 1984) that may have found rock-art's symbolic communication apparatus to be of use when attempting to retain dominance and maintain social cohesion. However, available evidence, as also presented and discussed in the course of this paper, strongly suggests that there is a clear yet evolving ideology lurking behind such an apparatus, as Guy (2017) points out apropos European Upper Palaeolithic rock-art. Indeed, belief systems are by nature ideological; their underlying givens are collectively embraced as self-evident established truths, even if less enthusiastically by some. This is how intra and also intergroup cooperation can occur, which are important from a species evolution point of view, especially in the case of the former (Boyd, 2009, pp. 113–125).

The coded messages present in rock-art most likely integrated mythical as well as mundane narratives that in turn would give meaning to the used symbols. Leroi-Gourhan stated that "an oral context connected and coordinated with the symbolic signification of (rock-art) images most certainly existed" (1990, p. 197; author's translation). While some argue that there are not that many different archetypes of stories told by humanity (Reagan, et al., 2016), phylogenetic studies have identified fragments of mythical narratives that have been dated back to the Upper Palaeolithic (d'Huy, 2016). It is important to recognize that these

narratives, considering their allegoric qualities whose long and pervasive standing has been identified by this new branch of linguistics, and noting the central role animal characters, sometimes invested of human traits, often play in myths and other stories, contain what can be seen as social or moral commandments *as well as* a certain amount of subversive content (Jackson, 2013).

The present author has previously valued rock-art imagery as also having constituted an entertainment device that was used to reach audiences in an appealing fashion so that conveyed meaning would be better delivered and accepted (Luís & Fernandes, 2010, p. 1314). These processes take advantage of the human need for escapism (Goleman, 1996, p. 73) and aesthetic appreciation. In this sense, it can be said that artistic imagery is part of an entrapment belief system that iteratively self-encases individuals when providing a sense of meaning, order, and permanence (even if illusory). From an evolutionary point of view, and considering the dynamic nature of human societies, this trap can be regarded as a competitive advantage conferred by having culture. An entrapment belief system was advantageous because it provided humans with an adaptation that arguably has placed them in a favourable position, even if quite ephemeral considering the long run of Earth's history, when compared with all contemporary species: the ability to cooperate flexibly in large numbers (Harari, 2014), since the species perceives itself as having and serving a higher teleonomic purpose (Fernandes, 2016).

Throughout this paper, a completely deliberate symbolic intention behind the production of rock-art has been argued for, even if its use adds yet another layer of meaning onto the very fabric of human workings. The proposed subversive traits present in Côa Valley Gravettean-Solutrean rock-art suggest that there was both a mainstream of motifs complying with customary norms, namely in *Represented themes* and perhaps less in the *Stereotypical nature of motifs*, and exceptions that questioned, and, in a way, also validated conventionality. Regarding *Superposition of motifs*, the opposite is proposed to be true: it is the practice of engraving on top of previous motifs, thus resulting in a relevant number of figures presenting such a condition, which is considered to be subversive. Hence, deviations to the norm, but also the complex and illusive end-results of successive superimposition acts, provide a literal reverse mirror where one can spot divergences from customary conventions, be reassured in belief by this realization, and safely return to the cosiness of the recognizable. Moreover, these illusion-creating deviations, making full use of the creative power that subversive intent bestows, further take advantage of rock-art's entertainment potential to deliver the social compliance commands, ultimately resting in the prevalent ideology, by precisely appearing to question dogmatic authority and/or elements of belief systems.

But for the trapping device to continue to work properly, innovation is needed to maintain appeal. The creative spark that arises from subversively questioning any given norm is a way of always fashioning original and thus more appealing forms and contents. Yet, this questioning is still bounded within the belief system that it sought to update and of which it is obviously part. In this sense, evoking a well-known criticism of the current mass-culture industry, regarded as an apparatus working in dictatorial fashion even if no totalitarian regime is in place (Horkheimer, Adorno, & Schmid, 2002, pp. 94–136), it can be suggested that subversion and/or creativity in (rock-) art are, from quite early on, 'just' tools used in the structuring and implementation of the broadly and tacitly accepted self-incarceration container called "Culture". *Fortunately*, the evolutionary trade-off involving the gain of the competitive advantages having culture bequeaths and the loss of (perceived) freedom that entails the acceptance of a more or less autocratic set of adhered to and enforced rules provides a sense of belonging. More importantly, it also comprises the promise of short but rewarding escapades in search for truth, beauty, 'reality' or meaning, as supplied by potentially transcendent aesthetic/ecstatic experiences. In turn, these experiences cumulatively advance the gain of competitive advantages by aiding to maintain emotional stability and solidarity ties within human groups (Bar-Tal, Halperin, & De Rivera, 2007; Cuypers et al., 2012; Dunbar, 1993). This enhances sustained focus and communal efficiency by providing engaging art 'traps' that are apparently liberating and truthful. In fact, dissension and ensuing creativity may have permitted the two apparently opposing mechanisms of cooperation and competition to work together, fostering the emergence of evolutionary advantages such as religion, art or storytelling (Boyd, 2009, pp. 113–125). It is proposed that rock-art symbols can be best understood if they are seen as having played a relevant part in continuous networked processes of *political* conciliation, authority sharing and/or transference.

The subversive intent discussed in this paper can also be seen to have acted as an attempt to obliterate, recycle and recreate meaning. Hence, it can be suggested that (slow-paced) social evolution processes during the Côa Valley Upper Palaeolithic, namely during the shift between the Gravettean and the Solutrean, also encompassed the periodic fragmentation of the symbols and lines embedded into the pervasive materiality of natural rock surfaces. These processes do not imply a loss of older meaning; rather, the accumulation and recombination of lines helps to build context and the corpus of knowledge available at any point in time. The complex palimpsests resulting from the entangled lines in superimposed panels present at Côa aptly evoke Ingold's view of the way "walking, weaving, observing, storytelling, singing, drawing and writing" (2007, p. 1) are all intertwined and woven together by lines. Also, through superposition these apparently disconnected/connected lines provide body and scope to dynamic cultural, social, and *political* transformation processes.

Concurrently, these processes resort to a sort of human embodiment into the landscape, in which the latter gains intelligibility when meaningful symbols are inscribed in rock surfaces. This embodiment should be understood not as the materialization of human body representations, but of the mythical and storytelling, hence ideological, dimensions created by the 'all-seeking-to-control' human mind. It is not necessary to represent the human figure in rock-art (since, for instance, in the Côa Valley Gravettean-Solutrean artistic cycle only animals were depicted) in order to infuse the land with significant symbols created by the human mind, even if those same signifiers draw formal inspiration from the shape lines and behaviour of non-human animals.

5 Conclusion

The possibility of recognizing subversion attributes in the imagery discussed in this paper should be considered within the framework of tensions and inconsistencies present throughout all of human history that conjunctly, and often haphazardly, shape it. It is believed that the addressed symbolical traits build a case for the presence of subversive content in Gravettean-Solutrean Côa Valley rock-art. Tying the knots together, this realization brings about a major insight: social change, human evolution or progress (select your favourite term!) instinctively(?) began using art in order to obtain competitive advantages that at the same time made the species fully 'human.' That is, *Homo sapiens* became equipped with the tools to manage this very same 'gain', *Culture*, in such a way that concepts such as *evolution* or *progress* could be retrospectively applied to what the author has described as the species' self-perceived, even if illusionary, gest (Fernandes, 2016). Thus, rock-art is seen as having been an essential component of conflict resolution and power distribution negotiation processes, since engraved lines conveyed narratives that could be used towards these ends. While identifying subversive intent in the thematic, location and canonical characteristics analyzed in the present work is not seen as excluding any other interpretation route, it further acknowledges the complex nature of rock-art and the creative spirit behind its completion. Moreover, it also emphasizes how such, at times elusive, formal components may have contributed, also taking advantage of their ambiguity, to soothe social tension by delivering the opportunity to choose from and entertain *other* diverse *interpretations*.

Acknowledgments: The author wishes to thank Mário Reis for the use of his photos and for his useful comments on early drafts of the present paper. The author also acknowledges the professionals that have been carrying out the documentation work of the Côa Valley rock-art, producing high-quality records, such as figures included herein. Authorship of tracings was attributed according to Santos (2017). Thanks are also due to the two anonymous reviewers of this paper, and to the editors of the present volume, for constructive suggestions, namely regarding different interpretations on *Superposition of motifs*. Nonetheless, the views expressed in this paper are solely those of the author. Finally, a special thank you is owed to the organisers of the conference Art and the Brain for the invitation to participate in the event.

References

Alcolea González, J. & Balbín Behrmann, R. D. (2007). Le gisement rupestre de Siega Verde, Salamanque. Une vision de synthèse. *L'Anthropologie*, 111, 501–548.

Alcolea González, J. & Balbín Behrmann, R. D. (2006). *Arte paleolítico al aire libre. El yacimiento rupestre de Siega Verde, Salamanca*. Memorias 16, Arqueología de Castilla y León. Salamanca: Junta de Castilla y León.

Aubry, T., Luís, L., Mangado Llach, J., & Matias, H. (2012). We will be known by the tracks we leave behind: Exotic lithic raw materials, mobility and social networking among the Côa Valley foragers (Portugal). *Journal of Anthropological Archaeology*, 31(4), 528–550.

Aubry, T., Santos, A. T. & Luís, L. (2014). Stratigraphies du panneau 1 de Fariseu: analyse structurelle d'un système graphique paléolithique à l'air libre de la vallée du Côa (Portugal). In P. Paillet (Ed.), *Les arts de la Préhistoire: microanalyses, mises en contextes et conservation. Actes du colloque "Micro-analyses et datations de l'art préhistorique dans son contexte archéologique" MADAPCA — Paris, 16-18 novembre 2011* (pp. 259-270). Villefranche-de-Rouergue, Grapho 12.

Bahn, P. (2016). *Images of the Ice Age*. Oxford: Oxford University Press.

Baptista, A. M. (2009). *Paradigm lost. The Côa Valley and the open-air Palaeolithic art in Portugal*. Vila Nova de Foz Coa/Porto: Edições Afrontamento/Parque Arqueológico do Vale do Côa.

Baptista, A. M. & Fernandes, A. P. B. (2007). Rock-art and the Côa Valley Archaeological Park: A case study in the preservation of Portugal's prehistoric parietal heritage. In P. Pettit, P. Bahn, S. Ripoll (Eds.), *Palaeolithic cave art at Creswell Crags in European context* (pp. 263–279). Oxford: Oxford University Press.

Baptista, A. M., Santos, A. T., & Correia, D. (2006). Da ambiguidade das margens na grande arte de ar livre no Vale do Côa: Reflexões em torno da organização espacial do santuário Gravetto-Solutrense na estação da Penascosa/Quinta da Barca. *Côavisão*, 8, 156–184.

Baptista, A. M., Santos, A. T., & Correia, D. (2008a). Estruturação simbólica da arte Gravetto-Solutrense em torno do monte do Fariseu (Vale do Côa). In *Actas do III Congresso de Arqueologia de Trás-os-Montes, Alto Douro e Beira Interior*, vol. 1. pp. 38–61. Porto: ACDR de Freixo de Numão.

Baptista, A. M., Santos, A. T., & Correia, D. (2008b). O santuário arcaico do Vale do Côa: Novas pistas para a compreensão da estruturação do bestiário Gravettense e/ou Gravetto-solutrense. In R. de Balbín Behrmann, (Ed.), *Arte prehistórico al aire libre en el sur de Europa* (pp. 89–144). Salamanca: Junta de Castilla y León.

Bar-Tal, D., Halperin, E. and De Rivera, J. (2007). Collective emotions in conflict situations: Societal implications. *Journal of Social Issues*, 63, 441–460.

Becker, C. (1994). *The subversive imagination: Artists, society, and social responsibility*. New York: Routledge.

Bednarik, R. (2014). The archaeological interpretation of rock art. *Purakala*, 24, 63–75.

Bernstein, J. M. (1992). *The fate of art. Aesthetic alienation from Kant to Derrida and Adorno*. Cambridge: Polity Press.

Bocquet-Appel, J-P., Demars, P-Y., Noiret, L., & Dobrowsky, D. (2005). Estimates of Upper Palaeolithic meta-population size in Europe from archaeological data. *Journal of Archaeological Science*, 32, 1656–1668.

Boyd, B. (2009). *On the origin of stories: Evolution, cognition, and fiction*. Cambridge, MA: Belknap Press of Harvard University Press.

Camille, M. (1992). *Image on the edge: The margins of medieval art*. Cambridge, MA: Harvard University Press.

Cuypers, K., Krokstad, S., Holmen T. L., Skjei Knudtsen, M., Bygren, L. O., & Holmen, J. (2012). Patterns of receptive and creative cultural activities and their association with perceived health, anxiety, depression and satisfaction with life among adults: the HUNT study, Norway. *Journal of Epidemiology & Community Health*, 66, 698–703.

D'Ambra, E. (1993*). Private lives, imperial virtues: The frieze of the Forum Transitorium in Rome*. Princeton, N.J: Princeton University Press.

d'Huy, J. (2016). Scientists trace society's myths to primordial origins. *Scientific American*, 315(6). Online.

Diamond, S. (1982). Subversive art. *Social Research*, 49, 854–877.

Dunbar, R. I. M. (1993). Coevolution of neocortical size, group size and language in humans. *Behavioral and Brain Sciences*, 16(4), 681–694.

Fernandes, A. P. B. (2008). Aesthetics, ethics, and rock-art conservation: How far can we go? The case of recent conservation tests carried out in un-engraved outcrops in the Côa Valley, Portugal. In T. Heyd, J. Clegg (Eds.), *Aesthetics and rock-art III symposium* (pp. 85–92). Oxford: Archaeopress.

Fernandes, A. P. B. (2014). *Natural processes in the degradation of open-air rock-art sites. An urgency intervention scale to inform conservation: the case of the Côa Valley world heritage site, Portugal*. Oxford: Archaeopress.

Fernandes, A. P. B. (2016). The fate of a thinking animal: The role of Upper Palaeolithic rock-art in mediating the relationship between humans and their surroundings. In H. Chittock, J. Valdez-Tullett (Eds.), *Archaeology with Art* (pp. 13–32). Oxford: Archaeopress.

Fernandes, A. P. B. (2017). Isto não é um afloramento! É uma rocha de arte rupestre... Factores potenciais de escolha de superfícies de arte rupestre na fase antiga paleolítica da Arte do Côa. In J. Arnaud, A. Martins (Eds.), *Arqueologia em Portugal 2017 - Estado da questão. Actas do II Congresso da Associação de Arqueólogos Portugueses* (pp. 901–1001). Lisboa: Associação de Arqueólogos Portugueses.

Fernandes, A. P. B., Reis, M., Escudero Remirez, C., & Vázquez Marcos, C. (2017). Integration of stone features and conservation of the Côa Valley and Siega Verde open-air rock-art. *Time&Mind* 10(3), 293-319.
Gilman, A. (1984). Explaining the Upper Palaeolithic revolution. In M. Spriggs (Ed.), *Marxist perspectives in archaeology* (pp. 115–126). Cambridge: Cambridge University Press.
Goleman, D. (1996). *Emotional intelligence: Why it can matter more than IQ*. London: Bloomsbury.
Guy, E. (2017). *Ce que l'art préhistorique dit de nos origines*. Flammarion: Paris.
Harari, Y. N. (2015). *Sapiens: A brief history of humankind.* New York: Harper.
Horkheimer, M., Adorno, T. W., & Schmid, N. G. (2002). *Dialectic of enlightenment: Philosophical fragments*. Stanford, CA: Stanford University Press.
Ingold, T. (2000). *The perception of the environment. Essays in livelihood, dwelling and skill*. London: Routledge.
Ingold, T. (2007). *Lines: A brief history*. London: Routledge.
Jackson, R. (2013). *Fantasy, the literature of subversion*. London: Routledge.
Johnson, M. (1999). A*rchaeological theory: An introduction*. Oxford: Blackwell.
Laming-Emperaire, A. (1962). *La signification de l'art rupestre paléolithique*. Paris: Picard.
Leroi-Gourhan, A. (1964). *Les religions de la Préhistoire*. Paris: PUF.
Leroi-Gourhan, A. (1990). *O gesto e a palavra: 1 – Técnica e linguagem*. Lisboa: Edições 70.
Leroi-Gourhan, A. (1992). *L'art pariétal: Langage da la Préhistoire*. Grenoble: Jérome Millon.
Luís, L. (2008). *The art and artists of the Côa Valley.* Parque Arqueológico do Vale do Côa/Associação de Municípios do Vale do Côa: Vila Nova de Foz Côa.
Luís, L. & Fernandes, A. P. B. (2010). On endless motion: Depiction of movement in the Upper Palaeolithic Côa Valley rock-art (Portugal). *FUMDHAMentos*, 9, 1303–1318.
Luís, L., Aubry, T., & Santos, A. T. (2015). Directing the eye. The Côa Valley Pleistocene rock art in its social context. In H. Collado Giraldo, J. J. García Arranz (Eds.), *XIX International Rock Art Conference IFRAO 2015: Symbols in the Landscape: Rock Art and Its Context* [DVD-Rom], (pp. 1341–1348). Tomar: Instituto Terra e Memória.
Maguire, E. D. & Maguire, H. (2007). *Other icons: Art and power in Byzantine secular culture*. Princeton, N.J: Princeton University Press.
Mark, J. T., Marion, B. B., & Hoffman, D. D. (2010). Natural selection and veridical perceptions. *Journal of Theoretical Biology*, 266, 504–515.
McNiven, I. & Brady, L. (2012). Rock art and seascapes. In McDonald, J., Veth, P. (Eds.), *A companion to rock art* (pp. 71–89). Chichester: Wiley-Blackwell.
Moro Abadía, O. & González Morales, M. R. (2007). L'art paléolithique est-il un "art"? Réflexions autour d'une question d'actualité. *L'Anthropologie*, 11, 687–704.
Olivier, L. (2013). Nuestro pasado no está en venta, *Complutum*, http://revistas.ucm.es/index.php/CMPL/article/view/42323/40283
Picasso, P. (1923). Picasso speaks. *The Arts*, May 1923, 315–26.
Reagan, A. J., Mitchell, L., Kiley, D., Danforth, C. M., & Dodds, P. S. (2016). The emotional arcs of stories are dominated by six basic shapes. *EPJ Data Science* 5 (31). DOI: 10.1140/epjds/s13688-016-0093-1.
Reis, M. (2014). Mil rochas e tal...: Inventário dos sítios da arte rupestre do Vale do Côa (3a parte). *Portvgalia, Nova Série*, 35, 17–59.
Renfrew, C. & Bahn, P. G. (2000). *Archaeology: Theories, methods, and practice*. London: Thames and Hudson.
Santos, A. T. (2012). Reflexões sobre a arte paleolítica do Côa: A propósito de uma persistente dicotomia conceptual. In M. D. J. Sanches (Ed.), *Artes Rupestres da Pré-história e da Proto-história: Paradigmas e metodologias de registo* (pp. 39–67). Lisboa: DGPC.
Santos, A. T. (2015), A arte paleolítica do Vale do Côa: Breve síntese. In S. Lee, A. M. Baptista, A. B. Fernandes (Eds.), *Arte rupestre do Vale do Côa* (pp. 149–163). Ulsan, South Korea: Ulsan Petroglyph Museum.
Santos A. T. (2017). *A arte paleolítica ao ar livre da bacia do Douro à margem direita do Tejo: uma visão de conjunto* (PhD thesis). Porto: Universidade do Porto.
Strauss, A. L. (1978). *Negotiations: Varieties, contexts, processes, and social order*. San Francisco: Jossey-Bass.
Trentin, L. (2015). *The hunchback in Hellenistic and Roman art*. London: Bloomsbury Academic.
Valdez-Tullett, J. (2016). Art, materiality and creativity: Understanding Atlantic rock art. In H. Chittock, J. Valdez-Tullett (Eds.), *Archaeology with Art* (pp. 53–78). Oxford: Archaeopress.
Wightman, G. J. (2015). *The origins of religion in the Paleolithic*. Lanham, Maryland: Rowman & Littlefield.
Womack, M. (2005). *Symbols and Meaning: A Concise Introduction*. California: Altamira Press.
Zilhão, J. (Ed.), (1997). *Arte rupestre e Pré-história do Vale do Côa. Trabalhos de 1995-1996*, Lisboa: Ministério da Cultura.