Similar signs from very different contexts: brief comparison between Lapa da Pedra (Brazil) and Franco-Cantabrian rock art context

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ABSTRACT - The universe of rock art consists of many kinds of pictures. Regardless of the type of representation, it is essentially formed by forms (signifier) and theirmeanings (signified) related to some culture. The non-naturalistic figures known as signs are found in a great variety of contexts all over the world, having a big diversity of shapes. What maybe speculated on, however, when two very different contexts present very similar forms of signs? In this paper, we intend to compare the thematic of rock art of two archeological sites, so that similarities can be identified. The sites are Lapa da Pedra, located in the centreof Brazil, and the well-known El Castillo, located in the Cantabrian region. We hope to bring up a discussion on boundaries, so as to access the meaning of signifiers that are similar but are scattered in different archeological contexts. Maybe these signs correspond to some structure of general scope which is independent of culture. Perhaps they may just be created by some external stimulus which promotes the same reactions in different individuals.

RIASSUNTO - L'universo dell'arte rupestre comprende molti tipi di immagini. A prescindere dal tipo di rappresentazione, esse sono essenzialmente costituite da una forma (il significante) e dal suo senso (significato) in relazione a una cultura. Le immagini non naturali conosciute come segni si trovano in una ampia varietà di contesti in tutto il mondo e con grande diversità di forme. Che cosa però è possibile desumere quando due contesti molto diversi presentano forme di segni molto simili? In questo intervento, è nostra intenzione mettere brevemente a confronto le tematiche dell'arte rupestre di due siti archeologici, in modo da individuarne le somiglianze. I siti in questione sono Lapa da Pedra, localizzato nel Brasile centrale, e il ben noto sito di El Castillo, nella regione Cantabrica. Speriamo di suscitare un dibattito sui limiti di accesso al significato di simili significanti disseminati in contesti archeologici diversi. È possibile che tali segni corrispondano a delle strutture di scopo generale che sono indipendenti dalla cultura. Si può ipotizzare che siano stati creati da una sorta di stimolo esterno che genera le stesse reazioni in diversi individui.

Lapa da Pedra site

Visual expressivity has arisen throughout the evolution of unwritten oral communication (Leroi-Gourhan, 1965:60). Therefore, although it presents an aesthetical dimension able to induce emotional reactions, its study is of objects full of meanings lost in the time and detached from our reality. This feature of systems of communication indicates the care required when observing very different contexts that present a pictographic corpus with similar structures.

We intend to present a brief comparison between the thematic of two archeological sites with different complexities, in order to identify some similarities and differences in the rock art. We hope to encourage debate about the boundaries of the access of the signified of similar signifiers (shapes) in very distinct archeological contexts. One site is placed at the centre of Brazil, Lapa da Pedra, the other is El Castillo, in the Cantabrian region.

The Lapa da Pedra site, is a rock shelter 14 m long, with a way out to west (Figure 1), located near Brasília. This archeological site is in an area with trends to diversification because every site is distinguished one from the other (Figure 2) in relation to the thematic of rock art. This diverse character may have developed through the relation established between prehistoric man and his environment at the end of the Pleistocene/early Holocene in this region, when the climate was drier and colder than the current climate.

For Schmitz (1990:111) there was a major abundance of resources in this ecosystem. However, the absence of large animals like bison and horses, for example, on which it would be possible to find a specialized hunting economy, may have facilitated the development of a generalized hunter-gatherer economy. Because of the difficulty of the displacement of resources and of interference in propagation, man survived through a rigorous strategy of migration.

The diet of the generalized hunter during the early Holocene in the rock shelter on the southwest of the Estate of Goiás is a miscellany of variations and sizes, including deer, capybara, monkeys, anteaters, armadil-

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los, turtles, lizards, fishes and birds, in addition to emu eggs. These fauna can also be identified in the rock art of some sites, such as Serranópolis and Caiapônia (Figure3) (Schmitz et al., 1984). However, the other more abstract themes can also be found in zoomorphic and anthropomorphic representations, indicating a possible change in the cultural standards of the groups living here. This is what specifically happens in the region of Formosa, where what Calderón has called the symbolist tradition (Mendonça de Souza et al., 1977) seems to have become intensified.

In the European context these abstract themes are the most abundant of Paleolithic art (Sanchindrián, 2001: 246). Despite being presented eminently by geometric forms that do not correspond to real objects or organisms, they were correlated to some referents, so that they are called ideomorphics or signs.

According to Schmitz (1990:129), the symbolic trend has been less studied in Brazil and could be chronologically posterior. This inference may be reiterated by the data obtained for the Lapa da Pedra site (c.4560 B.P.), which present just geometric figures and the representation of footprints.

COMPARISON BETWEEN THE SIGNS OF LAPADA PEDRA AND THE FRANCO-CANTABRIAN CONTEXT

In a general way, the more recurrent shapes in the Lapa da Pedra site are geometrics, like points, lines, circles and other signs that are arranged in order to make other figures, more complex and difficult to be characterized(Figure 4). In this graphic set there are compositions in which two types of figures cross towards a new figure, with points placed above and under lines.

Most of these drawings are red: however, there are some that were painted in black and seem to be superimposed by those in red. In this case, we do not know if these paintings were performed in charcoal, which would facilitate obtaining direct dating.

There are other themes in Lapa da Pedra which refer to forms found in extremely faraway space—time contexts, like the typical tectiforms of the Cantabria caves (Figures 5 and 6). These signs were described in Europe in 1903 by L. Capitan, the Abbé Breuil and D. Peyrony, as 'signs of house', because of looked like huts (Capitanet al., 1903). Because of the tendency towards a pentagonal form they were called tectiforms.

In the case of the Lapa da Pedra site, the signs of tectiform type have a size of 10–30 cm and are like punctiforms(Figure 7), which occur in the Franco-Cantabrian context. But at this Brazilian site the signs are more oval and have no more detail than those found in the European Paleolithic.

The representation of human limbs near the geometrical figures seems also to be related in both contexts. In the Franco-Cantabrian caves the hands are in the same space as the tectiforms whereas in the Lapa da Pedra footprints are among the signs.

These footprints vary usually between 7 cm and 20 cm and sometimes present more than six to es (Figure 8). One of these figures(9) can be dated because the black colour indicates that it could have been done in charcoal. This dating would be a special opportunity to be chronologically accurate not just at this site but others where this figure is represented. Moreover, each opportunity to enhance the miscellany of rock art may contribute to clarifying the knowledge regarding the figures known as signs in Brazil.

Since the beginning of research on rock art the signs were related to the first periods in which parietal art was expresses on the walls. According to the theory of cycles (Breuil, 1974:38), there were two cycles whose technique would evolve differently: the first, Aurignacian and Perigordian, and the second, Solutrean and Magdalenian. In these first studies, held during the first half of the 20th century, the symbols of the representations of negative hands would have been estimated at more than 22,000 years BP. Nevertheless, these data are still being reviewed because they may have been much more ancient (40,000 BP), estimated through uranium series dating (Pike et al., 2012).

Concerning the Lapa da Pedra site, there is no direct datation and the existent data are confused mainly because was there were not found enough fragments of artifacts to be estimated securely, only one piece of ceramic at about 4560 BP. Despite this problem there is a possibility of inferring a different chronology through other sites.

Some of figures of the Lapa da Pedra site are very similar to the figures from the Gruta do Gentio, a site well lit and extremely dry, placed 30km from Unaí-MG (Map 1). The conditions of preservation of the site beside, Gruta do Gentio II, allowed some archaeological and osteological remains to be preserved at about 10250 BP when drops of red dye and paint retained on the original soil show the use of this place as a ceremonial site. On the ceiling and lateral wall at this site there are red paintings and burials of partly cremated and disjointed individuals were deposited. This site is highlighted as an important area of study of mortuary archaeology, because it is contextualized by two cultural horizons: the hunter-gatherer (layers II, III and IV), which varies between 10000 and 7000 BP, and the horticulturist culture (layer I), between about 3500 and 400 BP (Sene, 2003:117). If we consider all these sites in a unique archaeological area, we could hypothesize that rock art in the Lapa da Pedra could be dated to around 10000 BP. But unfortunately this assumption cannot be proved.

THE SAME INTERPRETATION FOR DIFFERENT CONTEXTS

Although there are many differences between rock art contexts inside caves in Europe and those of America, there is a chance to infer structural similarities through which panels with signs are arranged in these two continents. In this case, the tectiform from Lapa da Pedra could be related to the formal variety that was created for this thematic. This association depends on several categories created by scholars of rock art. The first one developed by Leroi-Gourhan arranged the set of the Paleolithic signs through a morphological and topographical analysis, in order to distinguish two classes based on a structural interpretation of full signs and thin signs (Sauvet, 1977:545). Otherwise, the criterion of what becomes a sign in a certain category is not morphological but has the meaning that was assigned to it (Sauvet, 1993:224). In this way, some symbologies were associated with Paleolithic signs, among which the more emphasized correspond to sexual connotations (Sanchandrian, 2001: 246–54). In this case, the signs with more closed geometries, like triangles and quadrangles, or ovals, would correspond to the feminine universe, whereas those more opened, like lines and rectilinears, would be related to phallic or masculine elements. The punctuations make up a secondary group called "complementary". In other words, the tectiforms would be a reference to the feminine genital organ and the hods, bastonets and other thin signs would be associated with the masculine genitals (Leroi-Gourhan, 1968).

For Sauvet (1977), these interpretations are very controversial; however, they were used to create graphical relationships that allowed structural arrangements of the signs. However, at this moment we do not propose a semiologic framework in which the signs of Lapa da Pedra are syntactically and semantically analysed, as was proposed by Sauvet and Wlodarczyk for the signs of Upper European Paleolithic (Figure 10). We just intend to use this framework to identify the three groups of signs –thin, full and punctiforms – in Lapa da Pedra (Figure 11) in order to discuss the universalism of rock art in the world and the evolution of stages of cognition.

According to Vialou (1991:166–8), it is possible to find a variability of forms both in the parietal and mobile art, whereby style does not intervene significantly. These shapes that cross prehistory all over the world are the basic signs and the simple traits, in addition to the segmental representation of bodies, the negative and positive marks of hands, the feet always positive and the genital organs.

However, there is a chronologic specification for these symbols, since they were not done during at all in the Upper Paleolithic. In the Franco-Cantabrian prehistoric context, they are limited to the Gravettian and early Solutrean period (Feruglio et al., 2008:440–1), considering datesestimated at the end of the last century. In addition to differences in chronology, the signs present a difference regarding the technique, noted by the spatial distribution. While the major part of the negative hands is Cantabrian, the major part of the positive hands is in the Pyrenees valley (Leroi-Gourhan, 1995).

These data provided a chance to conclude that the shapes considered as signs are not as simple as they look. They exist because of cultural factors that determined the importance for representing it as one context instead of another, and one group instead of another.

A critical quest around the Paleolithic cave art of Europe relates to the concept of the origin of art (Dowson, 1998). The antiquity of cave art and its unquestioned aesthetic qualities make Paleolithic cave art a seemingly obvious candidate for the beginnings of the great artistic traditions of the West, reiterating the assumption that culturally modern *Homo sapiens sapiens* developed in Europe and after wards colonized the earth. However, more and more research has revealed that biologically modern humans developed long before the earliest date for Paleolithic cave art, and in places other than western Europe.

According to Dowson (1998), certainly all sorts of creative traditions developed around the world independently of those in Europe. The biggest problem of this circumstance is not the notable difference in the visual patterns created by the several human groups, but the existence of similarities among very different cultural contexts. These similarities would indicate human tendencies of conceiving some shapes able to reveal certain structures.

In this case, perhaps the picture of the tectiform could be the representation of a trap known by just a few groups. However, why would it be important to emphasize these traps without representations of any hunting? Is it necessary that these pictures are the representation of some discernible thing, or could they be a suggestion of other visual processes of constructed images?

Recently Paleolithic rock art has been associated with shamanism and all its ritual (Clottes & Lewis-Williams, 2001). In this view, the creation of the pictures would be preceded by the ingestion of substances, like manganese and barium oxide, able to provide hallucinations related to the altered states of consciousness and the phenomenon of trance: stages 1, 2 and 3 (Lewis-Williams, 2002).

This idea has often been based on ethnographic analogies with contemporary cultures using a substance known as *psycomélane* to make the pigmentation of paint, but which can influence the painter or someone that is nearby.

For Dowson (1998:72) this is one of the most interesting ideas about the meaning of rock art. However, it is also important to emphasize that human cognition is absolutely framed to arrange knowledge in symbolic

systems that will be externalized in a certain way. When we get information we seek to assimilate it with our cultural code and return it.

Man is free to create some shapes of things, adapting them to already existing shapes. The recurrence of visual and sonorous standards is, in this case, directly linked to the externalized memory and the creation of rock art styles. But the meaning of this memory, in turn, cannot be remembered by everybody, despite its shape being found in so many different places. It does not mean necessarily that all similar figures are part of the same process that occasioned its creation. But certainty there is a big possibility they are related beyond their shapes.

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Fig. 1 - Entrance of Lapa da Pedra site. Photo Santiago Guimarães.



Fig. 2 - Rock art sites in the Central Plateau of Brazil.



Fig. 3 - Representation of animals.



Fig. 5 -Signs from Lapa da Pedra. Photo Santiago Guimarães.



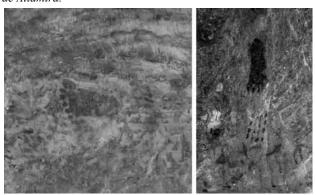
Fig 7 - Punctiforms from Lapa da Pedra. Photo Santiago Guimarães.



Fig. 4 -Lapa da Pedra. Photo Santiago Guimarães.



Fig. 6 - Signs from El Castillo, Cantabrian, Spain. Photo Museo de Altamira.



Figg. 8 and 9 - Footprints. Photo Santiago Guimarães.

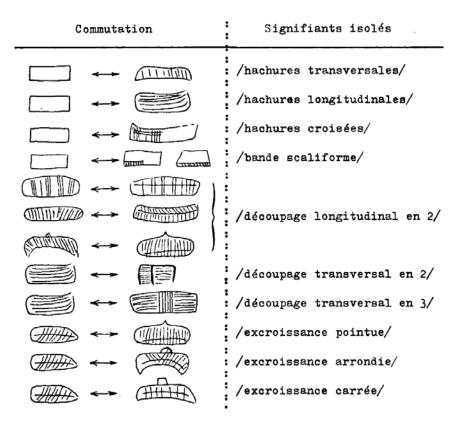


Fig. 10 - Syntactic and semantic frame for the signs of Upper Paleolithic (Sauvet, 1977).

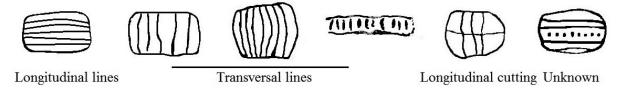


Fig. 11 - Tectiforms from Lapa da Pedra.

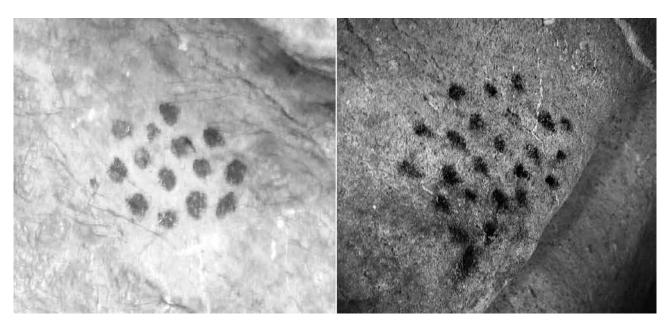


Fig. 12 - Punctiforms - Lapa da Pedra (left), El Castillo (right).