

# CALENDRICAL DEER, TIME-RECKONING AND LANDSCAPE IN IRON-AGE NORTH-WEST SPAIN

ANTONIO CÉSAR GONZÁLEZ GARCÍA,  
MARCOS V. GARCÍA QUINTELA, JUAN ANTONIO BELMONTÉ,  
MANUEL SANTOS ESTÉVEZ

## Abstract

The relationship between petroglyphs and archaeoastronomy has been treated in several ways in the past. In the present study we examine a particular motif found among the rock carvings in the north-west of the Iberian Peninsula: a large deer with over-sized horns and an unnatural number of tips on each horn. A multidisciplinary approach combining landscape archaeology, comparative history of religions, and archaeoastronomy suggests a coherent interpretation of the motif. It reveals a unique amalgamation of calendrical motives, landscape relationships and lunisolar events. It may also be significant in relation to the Celtic world-view and its artistic manifestation, and to the relationship between time and landscape.

Key words: landscape archaeology, petroglyphs, calendrical systems, Iron Age, Celts.

## Introduction

Campo Lameiro is the area with the highest density of petroglyphs in south-western Galicia (Spain). Although the petroglyphs have been studied since the 1920s, there is little published material offering an interpretation in a wider context (exceptions being de la Peña Santos and Vázquez 1999 and de la Peña Santos and Rey García 2001). It is always controversial to link rock art with cosmic cycles owing to severe arbitrariness and the difficulty of comparing it with evidence from ethnographic, textual, historic, cultural or religious sources (Belmonte 2006).

Deer carvings are very common in south-western Galician rock art. They are usually represented in herds and sometimes in hunting scenes (Peña Santos and Vázquez Várela 1999).

The deer are now dated to the Iron Age. This results from their attribution to the Schematic Atlantic Style defined by Santos Estévez (2003, 2008), which has been associated archaeologically with that period. In addition, the excavation of the Laxe dos Carballos carving provided a radiocarbon date for strata associated with the carved rock, the lowest of which yielded a date around 800 BC (First Iron Age). This may place this carved panel in an Indo-European or Celtic cultural context.

Four of these deer are much larger than the rest. These are represented in Fig. 1. In the first three cases the great deer dominates an unusually complex carved panel and has an unnatural number of tips per horn (see Fig. 1). Only the one at Campo de Cuñas appears alone. We shall also consider a unique deer at Os Mouchos (Rianxo, A Coruña), which has an average size

but overgrown antlers with a large number of tips on them.

We propose that these motifs relate to a pattern that may have been dictated by a combination of celestial and terrestrial concerns.

## The Data

### *The pattern*

In what follows we will briefly discuss each of the four large deer together with the fifth anomalous one. (A complete report on the topic can be found in Belmonte et al. 2008.) We would like to highlight a number of characteristics we found when investigating the first of the large deer—the one at Laxe dos Carballos (Campo Lameiro).

- The deer is large .
- The horns have an excessive number of tips (i.e. ~ 11, as opposed to the standard 7).
- The deer faces right.
- The deer is in front of a large circular motif and surrounded by other lesser motifs of similar kind.
- The number of tips evokes an ‘astronomical’ number (12, 13, 15, 30).
- There are three isolated ‘strokes’ beside the horns.
- The horizon has peculiar astronomical events (solstices and/or lunistics).
- The horizon is open towards the south-east.
- A carving is located within the horns.
- This is what we shall call “the pattern”. We will now examine each of the large deer and see to what extent it complies with these characteristics.

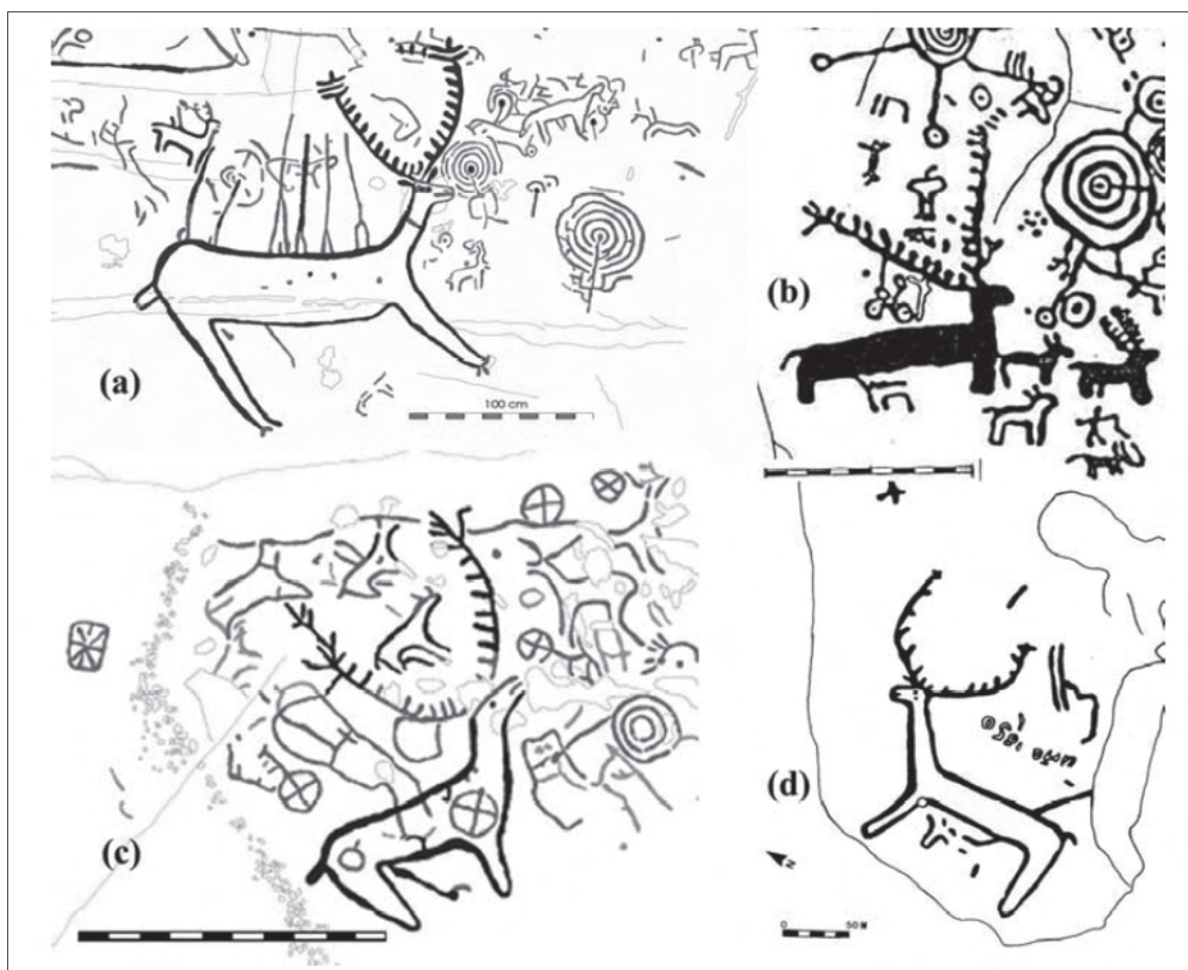


Fig. 1. The four great deer found in the carvings of south-western Galicia: (a) Laxe dos Carballos, Campo Lameiro, Pontevedra; (b) Laxe das Cruces, Tourón, Pontevedra; (c) Rotea de Mendo, Campo Lameiro, Pontevedra; and (d) Campo de Cuñas, Ponte Caldelas, Pontevedra.

*Laxe dos Carballos*

Obviously, Laxe dos Carballos, being the one that defines the pattern, fulfils all nine criteria (see Plate II: Fig. 2). The number of tips in the horns and the way they are distributed evokes some interesting astronomical numbers: thus 12 is the number of lunar months in a single solar year, while  $(12 + 3) \times 2 = 30$  is the whole number of days in a lunar month. We may also count the tips in a sequence suggested by the three isolated strokes next to the right horn. Starting at the rightmost one and counting three times (right-left-right) we obtain:  $12 + (12 + 1) + 12 = 37$ , which is the number of lunar months in three solar years. The isolated stroke in the upper part of the left horn may represent the intercalary month.

The only distant horizon from Laxe dos Carballos opens to the south-east (see Plate II: Fig. 3). Importantly, it is in this direction that we find the only two written inscriptions in Campo Lameiro. These are two rocks with the inscription 'DIVI'. They are located at the top of two low hills on a ridge in front of the far horizon, which is itself dominated by a distant mountain.

Around 800 BC, the winter solstice sunrise and the major southern lunistice moonrise occurred close to the locations of the two 'DIVI' inscriptions (see Plate II: Fig. 3).

*Rotea de Mendo*

This panel is located to one side of the Campo Lameiro complex. The great deer is surrounded by other deer and circular motifs, including a large circle to its right (see Fig. 4). It is facing right and it fulfils eight of the nine criteria that define our pattern. The only exception is the absence of the three isolated strokes. The deer has two large symmetric antlers with 13 tips each, although the left one seems to have an extra feature with another 4 tips. The count,  $13 + 13 + 4 = 30$ , again presents a lunar number as at Laxe dos Carballos.

The location of the Rotea de Mendo panel on the eastern slopes of a hill means that the distant horizon is located to the east and south-east. However, the panel is now deep inside a eucalyptus forest, which prevents direct observation of the horizon. We decided to reconstruct this horizon using digital elevation data from



Fig. 4. The great deer at Rotea de Mendo surrounded by circular motifs. The deer has two symmetric antlers, each with 13 tips. The left antler has an extension with 4 additional tips.

the area within the visibility envelope of the Rotea de Mendo site. We find once again that winter solstice sunrise and, to a lesser extent, moonrise at the southern major lunistic (SML), would occur at interesting points of this horizon such as intersections of closer and more distant lines of mountains.

#### *Laxe das Cruces*

The actual confirmation that we might be dealing with an intentional and very distinctive pattern came from a site 20 km away from Campo Lameiro, in the wonderful panel known as Laxe das Cruces (Tourón). The large deer in this panel (Fig. 5) complies with all the criteria of the pattern, including the three vertical isolated strokes next to the right antler. They could be counted in the following way:  $(11 + 2) + 12 + 12 = 37$ , again yielding the number of lunar months in three solar years. A more speculative suggestion is that the double tip at the bottom of the right antler could be indicating the need to introduce an extra month. There is a distant horizon to the south-east, but in this case there is no clear prominent feature associated with the winter solstice sunrise. On the other hand, moonrise at the SML occurs at the intersection of this distant horizon with a closer mountain.

#### *Campo de Cuñas*

The last great deer in this region is located at Campo de Cuñas, next to Ponte Caldelas (Tourón; Fig. 1(d)). However, apart from its size, none of the characteris-

tics so far analyzed applies to this deer. Hence we would see this as just a large representation of a deer without further implications.

#### *Os Mouchos*

We conclude our analysis with a further deer petroglyph. Unlike our other examples it is of average size; however, it is peculiar owing to its overgrown antlers, which resemble those in the first three cases. There are at least 12 tips on each antler (Plate II: Fig. 6). The horizon from this carving opens out to the south-west (not to the south-east) and over the sea (not over the mountains). In 800 BC, winter solstice sunset would occur over Cape de Cruz and moonset at the SML would take place over the sea. We believe that we are observing a similar phenom-

enon to the previous cases, although less spectacular and less elaborated.

#### Discussion and conclusions

Anyone can verify the facts that we have presented in this paper. We are clearly dealing with a common cultural phenomenon spread over different areas. This leads us to think that the areas considered were of special interest to the peoples who carved such panels. It is important to note the need for special observations in order to locate such areas.

It is difficult to find cultural parallels for these observations. However, an association between deer and/or horses and the Sun is common in the European Bronze Age (Briard 1987; Kristiansen and Larsson 2006), and, indeed, is incorporated in several ancient mythologies. The sun/deer association is evident in decorations on Iberian bell-beakers (Garrido and Muñoz 2000). In addition, Fredell (2006) has proposed a solar interpretation for the circular motifs associated with deer in Bohuslan (Sweden). Deer with unnatural number of tips on their horns are also found among the petroglyphs of Valcamonica (Italy); in the light of our proposal it could be important to analyse these in further detail.

Finally, there is some evidence from the Celtic world of the deer being associated with the Celtic god Cernunos, who is depicted by deer antlers. The Gundestrup cauldron and the coin from Petersfield, for example, bear a close resemblance to our carvings. In the Iberian Peninsula, F. Beltrán et al. (2005, p.938-9) describe a



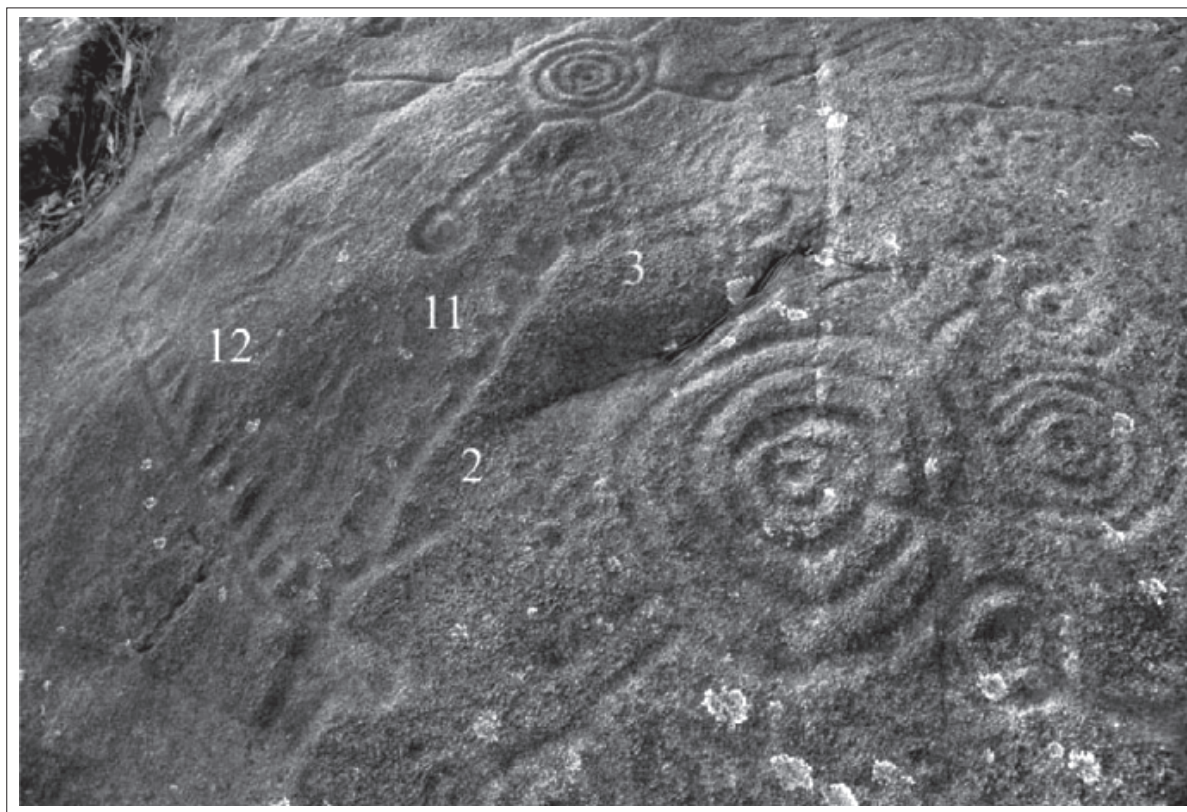


Fig. 5. Detail of the Laxe das Cruces panel showing the great deer and the large circular motif to its right. The large antlers have 11 and 12 tips protruding inwards, with two additional tips protruding outwards at the bottom of the right antler. Note the three isolated strokes next to the right antler, as at Laxe dos Carballos.

newly discovered Lati inscription found at the Celtiberian sanctuary of Peñalba de Villastar (Teruel, Spain). In this inscription a local god, 'Cor-donus', is identified by the Latin epithet *Cornutus*, which is strongly suggestive of the god *Cernunnos*, up until now only known in Gaul. The authors also mention a carved human figure, similar to those of the god *Cernunnos* found in France, and other inscriptions at the same site relating to the winter solstice and a feast during the last days of April, perhaps linked with the Celtic Beltaine.

We are convinced that the carvings depicting large deer with oversized antlers and an unnatural number of tips are more than mere hunting scenes. In our view they are likely to constitute true cult images, perhaps linked to *Cernunnos* or a local god of the same typology, that rendered sacred a landscape in which certain important astral configurations were evident. Symbolism showing some recognition of very simple luni-solar cycles was incorporated in the depictions. In particular, we believe that the panels from Laxe dos Carballos and Laxe das Cruces, showing the three isolated strokes next to the right antler, are most probably an indication of the existence of a luni-solar cycle of three years, after which Nature's clock would have been reset in a simple and effective way.

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### References

- BELMONTE, J. A., 2006. La Investigación Arqueoastro-nómica. In: J. LULL, ed. *Trabajos de Arqueoastronomía*, 41-79.
- BELMONTE, J.V., GARCÍA QUÍNTOLA, M.V. and GONZÁLEZ-GARCÍA, A.C., 2009. Ciervos, tiempo y paisaje. In: F. C. BOADO, A. M. CORTIZAS, eds. *Arte Rupestre, Paleoambiente y Paisaje. Miradas Interdisciplinares sobre Campo Lameiro. Col. Trabajos de Arqueología y Patrimonio*. CSIC-IEGPS. Madrid. In press.
- BELTRÁN LLORIS, F., JORDÁN CÓLERA, C., MARCO SIMÓN, F., 2005. Novedades Epigráficas en Peñalba de Villastar (Teruel), *Palaeo-hispanica*, 5, 911-956
- BRIARD, J., 1987. *Mythes et symboles de l'Europe préceltique: les religions de l'Age du Bronze : (2500-800 av. J.C.)*. Paris: Errance.

### III

III. ASTRO-NOMICAL AND ETHNOCOSMOLOGICAL INTERPRETATION OF ARCHAEOLOGICAL AND ETHNOLOGICAL ARTEFACTS

- DE LA PEÑA SANTOS, A., REY GARCÍA, J. M., 2001. *Petroglifos de Galicia*. Perillo, Oleiros: Vía Láctea.
- DE LA PEÑA SANTOS, A., VÁZQUEZ VÁRELA, J. M., 1999. *Los Petroglifos Gallegos. Grabados rupestres prehistóricos al aire libre en Galicia*. Sada: Castro.
- FREDELL, ASA, 2006. Solhjorten? fanns den?: fallsrudium av ett galiciskt bildtema och dess relationer till identiteit. In : R. BARNDON, S. M. INNSELET, K. K. KRISTOFERSEN AND T. K. LØDØEN, eds. *Samfunn, sym-boler og identiteit - Festschrift til Gro Mandt på 70-årsdagen*. UBAS Nodisk, 3, 121-133.
- GARRIDO PENA, R., MUÑOZ LOPEZ-ASTILLEROS, K., 2000. Visiones Sagradas para los Líderes. Cerámicas campaniformes con decoración simbólica en la Península Ibérica, *Complutum*, 11, 285-300.
- KRISTIANSEN, K., LARSSON, T.B., 2006. *La Emergencia de la Sociedad del Bronce. Viajes, transmisiones y transformaciones*. Barcelona: Bellaterra.
- SANTOS ESTÉVEZ, M., 2003. Arte Rupestre y Recintos Rituales en la Edad del Hierro. In: M. CASTIÑEIRAS, F. DIEZ, eds. *Profano y Pagano en el Arte Gallego*, USC. Santiago. 39-94.
- SANTOS ESTÉVEZ, M., 2008. *Petroglifos y Paisaje Social en la Prehistoria Reciente del Noroeste de la Península Ibérica*. Santiago: CSIC.

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## KALENDORINIS ELNIAS, LAIKO SKAIČIAVIMAS IR GELEŽIES AMŽIAUS KRAŠTOVAIZDIS ŠIAURĖS VAKARŲ ISPANIJOJE

**Antonio César González García,  
Marco V. García Quintela,  
Juan Antonio Belmonte,  
Manuel Santos Estévez**

### Santrauka

Ryšys tarp petroglifų ir archeoastronomijos praeityje buvo interpretuojamas įvairiai. Šiame straipsnyje nagrinėjamas konkretus motyvas, aptinkamas tarp uolų raižinių, esančių šiaurės vakarinėje Iberijos pusiasalio dalyje, vaizduojantis stambų elnią su didžiuliais ragais ir nenatūraliu kiekiu šakų ant kiekvieno rago. Autoriai pateikia galimą šio motyvo interpretaciją, remdamiesi tarpdalykiniu metodu, apimančiu kraštovaizdžio archeologiją, lyginamąją istorinę religiją ir archeoastronomiją. Tai leidžia nagrinėjamame vaizdinyje atskleisti savotišką kalendorinių motyvų sąsają su kraštovaizdžio dariniais ir Saulės-Mėnulio reiškiniais sampyną. Autorių išvados gali būti svarbios keltų pasaulėžiūros, jos meninės išraiškos bei laiko ir kraštovaizdžio sąryšio studijų kontekste.

Vertė Algirdas Girininkas, Jonas Vaiškūnas