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THE ROCK SANCTUARY OF BAROÑA HILL FORT AS AN EXCHANGER, INTERFACE AND CROSS-ROADS AMONG THE WORLD LAYERS OF CELTIC COSMOLOGY

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ABSTRACT

The small Iron-Age hillfort of Baroña (Porto do Son, A Coruña, Galicia, Spain) was inhabited during the last centuries BC and is in a singularly hostile environment on a small peninsula facing the Atlantic Ocean at the western end of the Muros-Noia estuary. The habitat is composed by a mere twenty houses defended by a stunning complex of three lines of massive walls. A large rocky acropolis with faint but clear signs of human activity hangs over the habitat. The study of the acropolis reveals the possibility that they include awareness of the surrounding landscape and relevant moments of the solar cycle. A monumental stairway adjacent to the acropolis leads towards the cliff overlooking the sea and seems aligned with the winter solstice sunset happening on the ocean beyond. Over the acropolis, the rock that dominates the area presents carved basins and slender petroglyphs related with winter and summer solstice sunrises while the eastern horizon is dominated by Mount Enxa that signals 1st May sunrise as seen from the acropolis. Finally, summer solstice sunrise seen from the acropolis coincides with a little hill some 2.5 kilometer away on which slope a panel with petroglyphs presents the only carved representation of the sun known in Galicia and the panel itself is related to some astral calendric relations. We argue that the hillfort's location seems to be a special place chosen to be a cross-road between the sky, the land, and the sea, i.e. the three elements constituting the Cosmos according to the Celtic tradition and shared by other Indo-European traditions.

KEYWORDS: Gallaecia, Iron Age, Cultural Astronomy, Celtic Worldview, Hillforts, Rocky Sanctuaries, Rock Carvings.

1. INTRODUCTION

The hill fort of Baroña (Porto do Son, A Coruña, NW Spain) is one of the most emblematic locations for Iron Age archaeology in the north west Iberian Peninsula, due to the excavation campaigns that made it famous, and its ideal setting in the landscape. Today it is one of the most visited places in the region of Galicia.

The hill fort stands on a small, roughly rectangular rocky peninsula measuring around 2.5 hectares, with sweeping views over the ocean. It is an inhospitable place: the nearest arable land is some 700 to 1000 metres away, and there is no nearby source of fresh water. Fishing and shellfish gathering are obvious options as the local means of sustenance, although few remains have been found, with signs that only 12% of the total surface area of the peninsula was inhabited (Calo, Soeiro 1986). Despite its small

size, its rocky acropolis contains a group of relevant solar alignments (Figure 1).

This involves considering the horizon surrounding the hillfort, over the sea to the west, and dominated by different landmarks in other directions. One of the relevant points on this horizon is the hill known as Monte Gurita. It is not particularly high, although it does contain some outstanding petroglyphs, forms a part of the solar alignments seen from the hill fort, and contains a series of celestial alignments that are worthy of mention.

The question in this case is how such a small, inhospitable hill fort has such a unique relationship with the sky. The answer lies in an analysis of how astronomy played a role in this culture, which associates astral alignments with a complex conception of the Celtic world.



Figure 1. Map: Main locations mentioned in the text. Top right: General view of Baroña hillfort from the east: the red oval indicates the rocky acropolis. Bottom right: Layout of Baroña hillfort. The oval indicates the acropolis, while the numbers and arrows show the detected solar alignments in the same order as described in the text.

1.1 TOPOGRAPHY AND SOLAR ORIENTATIONS IN BAROÑA HILL FORT

The hill fort is dominated by a rocky 'acropolis' that is difficult to delimit. It approximately covers an irregular surface of just over 1000 m², with its summit standing 24 metres above sea level. Seen from the land, this sector is dominated by a large rock that marks the highest point in the hill fort, with several signs of human intervention. Several loose rocks and

a slightly elevated section of the terrain suggests that a construction once stood here. On the top of the main rock there are several natural basins carved by erosion which have been artificially 'retouched'. Also, to the north side of the rock a series of parallel four lines have been carved, and on the south west side there is a type of 'sill' with signs of artificial manipulation. These alterations to the rock coincide with the directions from where the rising sun can be seen on the horizon at significant times of the year (see Table 1 and Figure 2).

1. A corridor that separates the habitat of the acropolis ends with a lookout point over the ocean, which points towards the sunset at the winter solstice (Figure 3).

2. Over the acropolis, the sun rises over the 'sill' at the south end of the main rock at sunrise at the winter solstice (Figure 4).

3. The rising sun at the summer solstice aligns with the north side of the same rock. When the sun is at a tangent to the horizon, it is positioned over

Monte Gurita. Also, the light causes the shadow of the adjacent rock to be projected over the carved lines, so that as the sun rises, the shadow descends in parallel to the lines (Figure 4).

4. The sun rises over Monte Enxa, a landmark in the local landscape, around the 1st of May and the 15th of August (Figure 5), i.e. in relation to the festivals marking the start of the season in Celtic tradition (García Quintela, González-García 2017) (Table 1).



Figure 2. Celestial relations of the Baroña hill fort (white arrows) and Mt. Gurita rock carvings (orange arrows) as stated in Table 1.



Figure 3. Solar alignment 1. Left: General view of the rocky corridor between the habitat and the acropolis of Baroña hill fort with some rests of a stair. Top right: superposition of multiple photographs of the path followed by the sun at the winter solstice. Bottom right: Climbing the stairs through this corridor as the sun sets, the observer finally stands at the top of a 'window' overlooking the ocean and the sun, which is at a tangent to the horizon over the ocean.

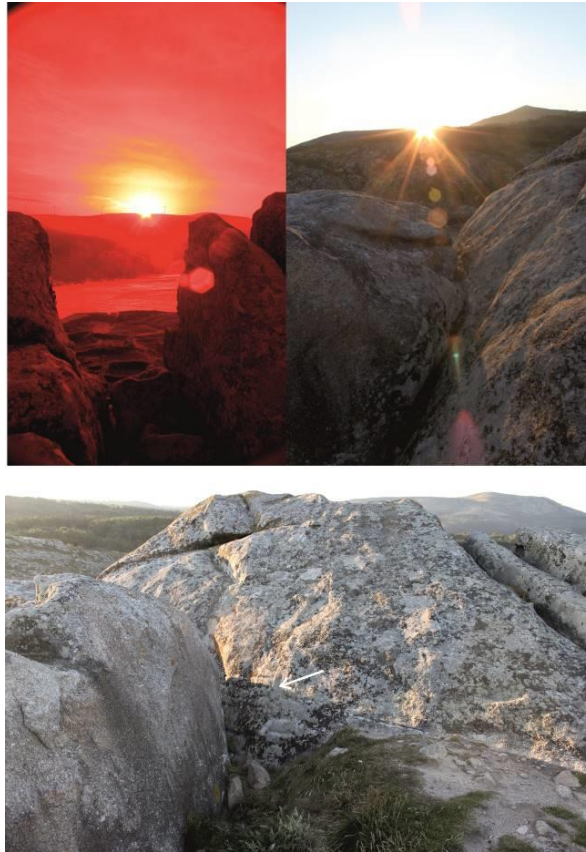


Figure 4. Solstices on both sides of the main rock in the acropolis. Solar alignment 2, top left: sunrise at the winter solstice from the SE side of the rock. Solar alignment 3, top right: sunrise at the summer solstice from the NE side of the same rock. The sun rises over Monte Gurita. Bottom: another view of solar alignment 3, as the sun rises at the summer solstice, the rock to the north of the main rock casts its shadow over four parallel lines carved on its NE side, the white arrow points towards the shadow over the second carved line from the top.

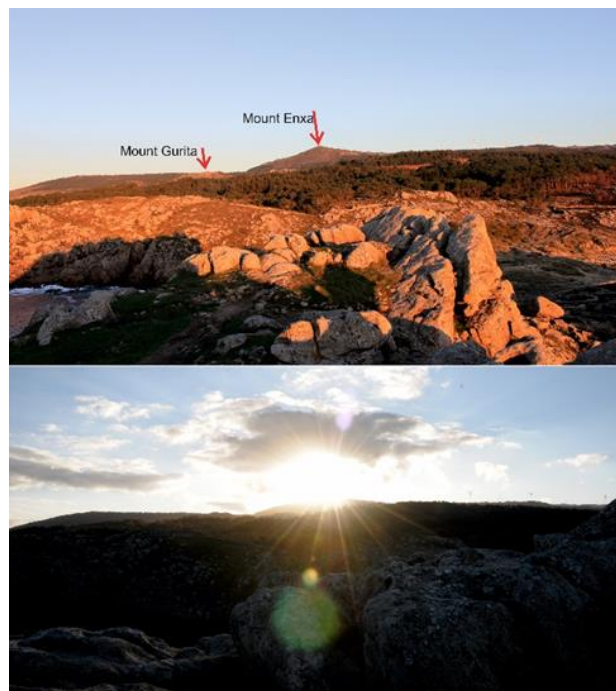


Figure 5. Top: General view of the top of the acropolis of Baroña hill fort, with the main rock on the right and the hills that mark the solar alignments on the horizon. Bottom: solar alignment 4, sunrise on the 1st of May over Mount Enxa, as seen from the acropolis of Baroña hill fort

1.2 THE ROCK CARVING OF MOUNT GURITA AND ITS ASTRAL ORIENTATIONS

There are several rock carvings on Monte Gurita. These include a large rock panel, with one of the carvings representing the sun (Fábregas et al. 2008) (Figure 6), a relevant factor for the end of a solar alignment. Three astronomical connections can be seen from this petroglyph, which we consider as significant.

1. The sunset at the summer solstice took place at the point where the horizon over the sea meets the base of Monte Louro for a couple of centuries before the change of era.

2. The setting of the moon at the main northern lunar standstill would have been seen over the summit of the same hill. Monte Louro is the only land visible from the petroglyph in this direction.

3. The sun sets over the ocean in the direction of where the hill fort is located around the 1st of February (another Celtic festival marking the start of the season) (Figure 7) (Table 1, Figure 2).

Table 1. Showing for each location the element considered, its latitude (L) and longitude (l), its azimuth (a), the height of the horizon in that direction (h), and the astronomical declination (δ). The last column contains some comments. The → sign means 'pointing towards.' WS=winter solstice; SS=summer solstice; NML = northern major lunistic.

place	Element	L (°/')	l (°/')	a (°)	h (°)	δ(°)	Comments
Baroña	1. Corridor S	42/41	9/02	230	0½	-29	→ Sea
	2. Corridor N			240	0½	-22	The midway points is WS
	3. "Sill" in main SW rock			124	1½	-23¼	Sunrise, WS
	4. Lines on main N rock towards M. Gurita			64¾	5½	22	Sunrise, SS
Gurita	5. Mt. Enxa			76½	7½	15	Sunrise, 1 st May
	6. Mt. Louro base	42/42	9/01	305	0	24	Sunset, SS
	7. Mt. Louro summit			307½	0½	26½	Close to NML
	8. Highest point of Baroña			244¾	0	-19	Sunset, 1 February



Figure 6. The rock carving on Mount Gurita. Top: General view of the slope containing the carved rock (arrow). Bottom left: the carvings with the sun motif (arrow). Bottom right: View from the rock carving towards the NW with the landmark of Monte Louro where astral alignments occur. The arrow shows the carved sun motif.



Figure 7. Two moments of the sunset seen from Mount Gurita towards the ocean horizon on 1st February. The arrow shows the location of Baroña hill fort

1.3 SOME CONTEXTS

This group of elements is a unique case; however, each observation does have parallels in the regional Iron Age.

Firstly, the religious function of the acropolises in the hill forts is becoming increasingly clear (Álvarez et al. 2017). This is difficult to perceive when, as in this case, a natural rock formation is symbolically activated according to the guidelines of “ambiguous architecture” (García Quintela and Seoane-Veiga 2013).

Its parallels are clearer in the valley of the River Barbantiño. The left-hand bank of the river contains the petroglyphs of A Ferradura, while its right-hand bank contains Mount San Trocadero and the hill fort of San Cibrán de Las (whose Celtic name was Lansbrica) (García Quintela and Santos Estévez 2008). These are the same elements we find in Baroña: an area containing petroglyphs (Gurita/A Ferradura); a hill fort (Baroña/San Cibrán de Las); and a landmark, (Enxa/San Trocadero). These three elements form the apexes of solar relationships on key dates, used as the basis for creating a structural understanding of the landscape: the winter solstice and the 1st of February in the River Barbantiño valley (there are other alignments in San Cibrán de Las) and the summer solstice and the 1st of May in Baroña (with the additional alignments in the petroglyph of Mount Gurita).

Finally, the 1st of May is relevant in terms of the orientation of structures in Celtic archaeological contexts. This can be seen in Peñalba de Villastar (Terral), where a Latin inscription carved over the rock indicates a rite just a few days before the calends of May and is indirectly associated with the sunrise on the 1st of November over the horizon as seen from the aforementioned inscription (García Quintela and González-García 2010). The city of Segobriga, built by the Romans and founded around 15-12 BCE, although its name and alignments are Celtic, with its forum oriented towards the point where the sun rises on the 1st of May (Almagro-Gorbea and Lorrio 2006-2007; García Quintela and González-García 2017).

2. DISCUSSION: THE EMBODIMENT OF A WORLD VIEW

Given the above consideration we can argue that the Baroña hillfort has clear elements connected to the Celtic tradition. Both the habitat area, the acropolis shape, the ancient chronicles and the material record indicate the Celtic substratum.

Firstly, we consider that astral alignments form a part of a cultural context which, in turn, they contribute towards defining (Iwaniszewski 2009). Sec-

ondly, we consider the Celtic cultural horizon seen in the proto-history of Gallaecia (González García 2011; García Alonso 2009). Specifically, the classic authors refer to the Praestamarci Celts (Pliny IV. 34.111; Pomponius Mela III.1) who lived in the Barbanza peninsula where Baroña is located: the parish of San Isidro de Postmarcos still bears witness to its ancient name. Thirdly, we consider it appropriate to apply an “archaeology of the Celtic calendar” based on the predominance of orientations towards the east, the importance of the festivals marking the start of the seasons (held in Ireland on the 1st of November, February, May, and August), and the importance of the moon (García Quintela and González-García 2017).

Based on these aspects, it is justified to recall the Celtic world view: the world is organised at a lower level, often marine or aquatic, occupied by the dead; then a midway level, inhabited by humans on the surface of the earth; and then an upper level, inhabited by the gods (Delamarre 1999; Mac Mathúna 1999; Sayers 2013; Borsje et al. 2014).

It is in this context that the observations described above gain clear significance and form a part of a cultural context which, in turn, they contribute towards defining (Iwaniszewski 2009).

In Baroña, the sky occupies the highest plane, bordering with the intermediate level at a point marked by relationships of visibility and the astral alignments to which we have referred: the acropolis of the hill fort, the petroglyph on Mount Gurita, and Mounts Louro and Enxa, whose summits define a level above which are the celestial bodies and the gods. Below them, the life of humanity takes place: this level appears in the rooms in the hill fort, and the spaces used for subsistence. The lower level is represented by the sea, both in its extension towards the west, with its funerary and underworld connotations, and by its depth.

In Galician culture, these concepts can be found in several sources (Vega 1987; Sánchez 1997). We are interested in the story of the monk Trezenzonio, dating from the 11th century. The protagonist appears in a Galicia that was deserted because of the Moorish invasion close to the lighthouse of Brigantium (the Tower of Hercules, in A Coruña). The name Brigantium suggests Celtic influences. The Celtic god Brig is associated with the Irish St. Brigid, whose feast on 1st February supplanted the Celtic feast of Imbolc (McCluskey 1989). From the lighthouse he saw the wonderful Great Island of the Solstice (*insula magna solstitionis*). Fascinated, he set off on a journey towards the island, where he spent seven years. On his return, Galicia had changed greatly (Van Duzer 2008). This tale coincides with two aspects of what we have seen in Baroña. Topographically, the penin-

sula of the Tower of Hercules and the Punta do Castro in Baroña are both lookout points over the ocean. Astronomically, the island seen by Trezenzonio is called "Solstice," while Baroña has a solstitial lookout point over the sea. In parallel to this, we can also mention the world view that is implicit in the hagiography of St. Mariña (González García and García Quintela 2016).

Finally, the points where the astral relationships are projected onto the land (the east) or the sea (the west) are important for the community. They would have been used for the celebration of rituals in the places and on the dates in question and refer to a world view that brings together ideas about the afterlife, such as the journeys over the ocean we have seen, and eschatological concepts. They also invite us to distinguish between the astral tropes, and the dates marking the start of the seasons that were defined based on a cultural convention whose codes are beyond our knowledge.

3. CONCLUSION: A HILLFORT "SANCTUARY"

How is it possible for a tiny hill fort such as Baroña to contain such a wealth of symbolism? Is it something shared by many other small Galician hill forts that we do not know how to identify? Is this a hill fort with an especially high concentration of symbolic elements?

If the answer to the last question is "yes," the hill fort of Baroña may have been a place of retreat for the "separation or marginal phase" of the initiations, to use the terminology of Arnold van Gennep, without knowing who was involved. They may also have been used for holding rituals that went beyond the scope of the local community, guaranteed by the permanent residence of a few people who, at specific times, would have swollen to large numbers, such as in the festivals, agones, described by Strabo as typical in the populations of the north west Iberian Peninsula (III.3.7).

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There are other hill forts that we could consider as "sanctuaries." The hill fort of Pencia, in Asturias, is tiny, only occupying some 4000 m², with a dozen dwellings that cover barely 21% of the surface area. However, it is protected by an impressive wall to the south, with a clearly identified community area, and two saunas (Rodríguez del Cueto 2013). The hill fort of Facho de Donón, in Cangas, is located at the western end of the Morrazo peninsula (another lookout point over the ocean), where excavation work has revealed a large number of epigraphs dedicated to the god Berobreo, indicating that it was turned into a sanctuary after it was abandoned in the first century AD (Suárez 2015). We can add to these cases the likely original use for religious functions and/or community assemblies in the area occupied by the hill fort of San Cibrán de Las, which after the construction of the hill fort at the end of the second century BCE, materialised in the religious dedication of the acropolis (Álvarez et al. 2017).

In summary, the interplay of concepts and observations we have presented would suggest that the Iron Age populations in the north-west Iberian Peninsula established a series of complex symbolic landmarks in their territory. It is also highly likely that all these observations were inherited from the past, operating in the ideology of the Iron Age populations as a result of an accumulation of knowledge about the landscape –and skyline– over many centuries.

These places would have become entwined with the legends of the Celtic and Indo-European world view, consisting of an image of the world organised into three levels: a terrifying underworld, a glittering world of stars and gods, and between them, the world of humanity. This makes it possible to understand the natural and artificial elements found in the hill fort of Baroña as an expression of this world view, and the consideration of the hill fort as an exchanger interface between these three worlds, thereby connecting it with the usual function of sanctuaries over time.

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