1. Introduction

The first time we visited Sweden in 2002 to collaborate in the excavation and documentation of rock art in the region of Tanum (Bohuslän), we had a series of objectives, including studying in situ the characteristics of the rock art in the area in order to establish, from the perspective of Landscape Archaeology, the similarities and differences between the carvings from this area with those found in Galicia, as well as to learn from our experience in Sweden in work carried out around the carvings, to carry out an excavation some months later around a carving in Galicia (Santos and Seoane, 2005). At the same time as reaching these objectives, our visit was also intended to be a way of publicising information about other petroglyphs in the Iberian Peninsula (Figure 1).

We are conscious of how little information is published on Galician petroglyphs at international level, despite being one of the main focal points of rock art alongside the British, Alpine or Scandinavian variations. When we refer to peninsular rock art beyond our frontiers, this is immediately associated with paintings from the Levant or Franco-Cantabria area and Palaeolithic carvings from Foz Coa in Portugal, both of which are clearly disassociated from Galician rock art in both temporal and cultural terms.

There is also a notable absence of references to rock art from the north-western Iberian Peninsula in the bibliography in foreign languages, mainly due to the late start made by Galician researchers in opening up to the outside world. Until the 1990’s, the publication of information on petroglyphs from Galicia was in the hands of foreign archaeologists who visited our region and whose work made a substantial contribution to its publicity at international level (Anati 1964 & 1968). In 1969, 70 and 71 a major collaboration project took place between the CeSMAP (Centro di Studi e Museo d’Arte preistorica di Pinerolo) and researchers from the University of Santiago de Compostela and Pontevedra Museum. As a result of this interaction a further series of articles was
published: García & Fontanini (1971), Bessone et al. (1972), Borgna (1973). In the 1990’s, Landscape Archaeology served to take the first steps towards introducing Galician prehistory in general into Europe, and rock art in particular. In this case a series of articles were published in international journals from foreign researchers (Bradley 1997), Galician's' (Criado et al. 1997) (Santos & Criado 2000) or from both (Bradley, Fabregas & Criado 1994, 1995). In the twenty-first century international projects appeared, such as the Emergence of European Communities, giving us the opportunity to promote awareness of Galician rock art in Sweden. As part of this project, we would highlight the following points: collaboration between Galician and Swedish researchers, leading to their participation together with university students in training projects in both countries; the involvement of the cultural administrations in both countries; and the organisation of yearly workshops aimed at participants in the project. The project culminated in 2006 with the preparation of a book covering different aspects of Galician and Swedish rock art.

This article is a small contribution aimed at offering an introduction to the most general features of Galician petroglyphs. However, and no less importantly, we also wish to describe the current status of Rock Art in Galicia, what stage we have reached in terms of research, and which projects are underway for its recovery and presentation to the public.

2. Formal and chronological contextualisation of Galician Atlantic Style Rock Art

As a starting point, we considered it logical to define the object of our study: Galician Atlantic Style Rock Art³ leaving to one side all manifestations we do not consider as fitting in with this style⁴. Atlantic Style Rock Art extends from northern Portugal to the north of the British Isles, with practically identical geometrical designs found: circular combinations, spirals, and to a lesser extent, mazes and labyrinth shapes, amongst others (we have not included cup-marks as they are practically universal symbols that were carved over a very long period of time). We believe that Galician Rock Art should be included in this group, as these geometric figures (Figure 2) form its iconic base, being the most frequently and widely found in geographical terms. Yet at the same time, they share features with other areas of rock art throughout Atlantic regions (MacWhite 1951 & Bradley 1997), not only thanks to their formal similarity, but also for their chronological coincidence and their distribution, clearly associated with the coastline.

However, other types of figures exist in Galician rock art that give it its own ‘personality’ and provide information about its chronology and function, namely the figurative motifs found, such as deer, horses, weapons and human figures. This natural repertoire, which appears either isolated or in direct conjunction with an abstract theme, is what

Fig. 2. The most frequently found geometric motifs in Atlantic Style Galician Rock Art.
characterises Galician rock art, differentiating it from other types of carvings found along Europe’s Atlantic coastal regions. The most numerous designs are zoomorphs, deer, and to a lesser extent horses and snakes, as well as weapons, so called ‘idoliforms’ and anthropomorphs. Deer are the most widely-represented figures (Figure 3); except for rare occasions, all of the quadrupeds are stylised, characterised by having internal space, a lack of anatomical details, and because the lines forming their extremities are a perfect continuation of their front and rear quarters (Santos, 2004: 68). These animals often form a part of hunting scenes, where they appear injured by weapons, and often the reproductive cycle of the animal is shown: the rut and copulation. Weapons also form an important part of this iconographic repertoire, with certain models of daggers, short swords, halberds and shields. The only themes we are able to identify are those related with warfare and hunting, representing the activities that were probably considered as most prestigious at that time, and we never find scenes of domestic or daily life. Also, the figures always show masculine attributes, and there are no clearly feminine representations. Galician Atlantic rock art appears to be dominated by an ideology that defended the social dominance of the warrior male.

Practically all of the rock art found in Galicia is carved on granite, mostly on horizontal or sloping rocks, and rarely on vertical supports. The panels usually function as an integrated whole, in which the panel itself predominates over the motif, although there may have been later additions. (Figure 4). The distribution of the motifs is vertical, laid out...
obliquely, with a main figure that is nearly always made to stand out by being larger and/or carved more deeply into the rock. In some cases, particularly with figurative motifs, there is some evidence of the use of perspective or depth of field, using different sizes and juxtaposition on the carved surface (Vázquez 1997).

Technically, the carvings are characterised by currently having a much worn groove with a section in an open ‘U’ shape. The carving technique probably involved a pick, abrasion, incision, or a combination of several techniques, which in many cases may be verified by observing a series of characteristics, particularly the appearance of the grooves.

2.1. Chronology

The absence of a direct relationship between the petroglyphs and archaeological elements susceptible to being dated with a degree of certainty has led to controversy in the opinions of researchers studying the chronological background of these carvings. However, it may be said that consensus has been reached in accepting that part of what we refer to as Atlantic Style Galician Rock Art may be dated to the Early Bronze Age (2500-1200 B.C.), as by analysing the typology of the weapons represented in the petroglyphs, such as halberds and short swords with triangular blades, we know that they are very similar models to those found in contexts from the Early Bronze Age, and can date these motifs with a minimum guarantee.

Over the recent decades this group has come to include weapons with other designs of the Atlantic Style, thereby bestowing them with an identical chronology (Peña and García 1993; Santos 1998 and 2004), and affirming that the use of Galician rock art could not have continued far beyond the second third of the second millennium BC. (Peña 1992). Some authors attribute it to a period between the third millennium BC and the first centuries of the second millennium BC (Peña 2003), concluding that Galician rock carvings were the work of some of the human communities settled in the territory during this period, coinciding with the end of the Megalithic period and the early development of metalworking (Peña & Rey 1991), not exceeding under any circumstances the second third of the second millennium. This hypothesis is based on the existence of a supposed break in the archaeological record, which appears to suggest that after the social
development and economic intensification of the transition from the third to second millennia, a crisis occurred which led to an interruption of this process of development, and which led to inevitable social changes that led to the disappearance of the Galician group of rock art (Peña 1992).

However, the results of a recent excavation (which we will refer to at the end of this article) and a chronological analysis of various characteristic designs from Atlantic Rock art, have led us to at least revise this chronology, suggesting that it lasted until at least the Early Iron Age (eighth to fifth centuries BC). In this case we propose two groups of different motifs that are related to two stages of production of the Atlantic Style (Santos 2005a & 2005b). The latest stage would be formed by some typical figures found in Galician rock art, such as mazes and horse-riding scenes, which did not start to appear generally throughout Europe until the end of the Bronze Age and start of the Iron Age. Another earlier stage would have been basically comprised of weapons, with the appearance of a tendency towards a dislocation between the weapons described above and the other motifs from the Atlantic Style.

3. Rock Art from the perspective of Landscape Archaeology

In our opinion, the location is an essential factor in order to be able to comprehend the space and function of rock art. Until the 1990’s, research had focused on questions of style and chronology, a focus that changed when the research strategy of Landscape Archaeology started to be applied to it. This gives greater priority to the location as an instrument that helps define the role rock art had in constructing the landscape, from the perspective of its interrelations with the surrounding social and natural environment. The first application of the theoretical principles of Landscape Archaeology in studying the spatial organisation of the rock art panels was presented by Felipe Criado in Límites y Posibilidades de la Arqueología del Paisaje (The limits and possibilities of Landscape Archaeology) (1993), focusing on rock art as part of an organised space which responds to the concept of landscape held by the society that made use of it. This research strategy had already been used in the prehistory of the British Isles (Bradley 1991) and was soon put to effective use in Galicia.

3.1. The landscape of the carvings

The Galician landscape and more specifically, the areas where the highest concentrations of petroglyphs are found (the western coast and neighbouring zones) are generally very mountainous. It is a highly fragmented space, formed by a large number of small ranges with alternating narrow, fertile valleys. The ranges in these regions are not very high in absolute terms, but they do have very steep slopes, which in some cases soar from sea level to 500m in a very short space. The coastline is also jagged and characterised by the presence of rías (low valleys formed during the Quaternary period that were then invaded by the sea, forming estuaries similar to fjords).

The distribution of Galician rock art is not homogenous, but is instead concentrated in a very specific area: the region’s Atlantic coast (Figure 5), in a geographical area that includes the provinces of Pontevedra and A Coruña, demonstrating a clear link between this phenomenon and the coastline. The density of the carvings within this area is unequal. The most significant number of stations in quantitative terms is found in the districts of Campo Lameiro and Cotobade in Pontevedra, and also in qualitative terms, as they have the greatest thematic variety found in Galician rock art. The most important stations with regard to the quantity of petroglyphs are also those that have the most exceptional designs (Bradley 1997). As we move away from this area of high concentration the density of carvings declines, together with the typological variety of the designs.

This process is heightened towards the interior, where we only find petroglyphs forming small concentrations in very specific areas, coinciding with the area around the only two navigable rivers in Galicia (Santos 2005c).
These river courses represent a natural means of penetrating inland from the ocean. This difference in dispersion may be due to factors such as different conditions of preservation or greater or lesser intensity in terms of research; however, prospecting work carried out in recent years has shown that most newly discovered petroglyphs appear on Galicia’s western coast, once again appearing to confirm that these carvings belong to the Atlantic region, preferably in the area of the ‘Rias Baixas’ or lower estuaries. Work is starting in Galicia on analysing this proximity to the sea as a further element that may reveal a possible connection between petroglyphs and sea routes (Seoane 2005, Santos & Seoane 2006).

The petroglyphs are located outside areas of settlement, and often far away from them. It is important to clarify that settlements in the Bronze Age and Early Iron Age were built from the top to the bottom: the settlements were located at the top of the hill ranges, characterised by having light soils, avoiding the lands from the lower regions in the valleys, which were covered with wild vegetation (Santos 1998).

More specifically, they are found around bogs or marshy ground, enclosed by the natural relief of the area, and which remain wet even during the driest parts of the year (Méndez 1994). This connection with bogs and concave spaces, arranged around their contour or even inside them, is not always the case, as carvings are also found to a lesser degree in intermediate spaces or areas of communication and access between these concave spaces.

3.2. Art as an object: function and meaning

It is therefore clear that most of the petroglyphs are connected with low-lying areas or small depressions in more or less high, wet areas (with the presence of bogs). Areas of this kind are suitable for herding animals together and keeping them controlled. The presence of hunting scenes, animal driving and horse riding in the carvings found around them may be representing the type of actions that were carried out in these areas. Furthermore, the carvings are located in areas of movement and passage, and may even at times be marking lines of transit across the terrain. One significant feature is that in carvings showing animals in movement or footprints, their direction generally coincides with general lines of transit.

In this sense, Bradley, Criado and Fábregas (1994a & 1994b) believe that they would have served as elements of cohesion for a group, in which inter-group conflicts began to appear related to the location of resources, helping to regulate access to them and defining the rights of the community over them. They would have functioned as a symbolic system for the appropriation of space, within a context characterised by the need of certain nomadic societies to define their ownership over a territory and access to areas of high strategic value. The petroglyphs would have been a further way in which the individuals belonging to these groups communicated with each other (Bradley et. al 1994). Within this context, rock art would have served as a means of organising the landscape, being located in specific highly visible areas and in areas connected with pastureland and the tracks or routes leading to them.
Following the theoretical and methodological principles developed by Criado Boado and Santos Estévez, the petroglyphs would have been a visible expression of the existence and delimitation of a territory. Santos (1998) defends that Galician petroglyphs had a triple function: first they would have served as territorial markers, as they are found in strategic areas, probably with the intention of controlling transit through a specific area by the semi-nomadic communities connected with it. This author proposes a type of society in the Bronze Age with territories occupied by a supra-local political unit comprised of one or more small domestic groups, a hypothesis corroborated by the presence of exclusive types of rock art designs for each zone (Santos, 1998: 167). Secondly, they would have served to define social space at local level, defining a community, separating domestic space from the wild, and defining areas reserved for pasture, which at given moments would have generated a degree of competition between the different communities, serving to regulate the use of spaces shared by several communities.

As a third possibility, they may have served as meeting points, with the hypothesis that rituals may have taken place in many areas with rock art related to the world of hunters and warriors. The author makes use of ethnographic comparativism to verify that in general terms, rock art is found in areas destined for particularly relevant ritual purposes, such as rites of passage, and especially those related with the passage from childhood to adulthood, or an individual joining a specific social group, such as a band of warriors, which generally took place in areas away from domestic space, a feature shared with rock art (Santos 2004).

This ritual and sacred function is an inherent element in rock art, and is a faithful reflection of the existence of a relatively complex spiritual world, in which the deer played a role with a strong symbolic content. Outside of the scope of Landscape Archaeology, a series of different paradigms have been suggested, as the authors start out based on different social contexts for the communities that carved and used the petroglyphs. Some researchers state that rock art would have appeared within a society with a profound socio-economic re-adaptation, attributing it with the function of being the legitimating elements of a new social reality, due to the consolidation of the social complexity availed by the presence of signs of an intensification of agricultural practices leading to the share-out of excess produce, transformations in the collective funerary ritual in benefit of individuals, characterised by grave goods comprising metallic armour, and elements of personal decoration, some of which may even come from distant points of the Atlantic regions, implying a wider scope in relations of exchange, and new forms of social organisation, etcetera. (Peña & García 1993 and 2001).

4. The enhancement & presentation of Galician rock art

Since 2002 an integral programme has been underway in the field of rock art, supported by the regional government and aimed at fostering the research, conservation and enhancement of this heritage. The result is the creation of a Rock Art Archaeological Park (Figure 6) supported by a complete research programme, financed with regional funds (code XGPS 2002/01) as well as European funds (HPRN-CT-2002-00230 from the VI PM), incorporating methods from very different disciplines, with the collaboration of national and international institutions, such as the University of Umea in Sweden (Various authors 2004).

The area chosen for the park is in the local council of Campo Lameiro, set inland from the coastline of the province of Pontevedra and covering 69.94 Km2, an is one of the focal points of Galician rock art, both in terms of the quantity and variety of carvings. The archaeological park covers 22 hectares and will have an interpretation centre and some 50 rocks with carvings.

The research programme associated with the Rock Art Park project was carried out jointly between the Landscape Archaeology Laboratory of the Padre Sarmiento Institute of Galician Studies (CSIS-XuGa) and the Laboratory of Paleoenvironment, Heritage
and Landscape (LPPP), of the Technological Research Institute of the University of Santiago de Compostela. Since 2002, research has been carried out to document the landscape and archaeological context of the carvings found in the park and its surrounding area. These actions, now in their final stage, cover different types of work and involve a multi-disciplinary team of researchers, comprising archaeologists, geographers, soil scientists and chemists.

The main scope of the programme is the area where the future park will be installed, although work, mainly prospecting, was carried out in the rest of the local council area. This work involved the following:

4.1. Superficial archaeological prospecting

A systematic archaeological exploration had never been carried out in the region of Campo Lameiro, with the carvings catalogued the result of individual prospecting projects carried out in the area in recent decades. In 2003, taking advantage of scrub-clearing work, the whole of the area where the park is to be situated was prospected, as well as some of the surrounding areas. A total of some 500 hectares was prospected, locating a total of 100 new elements, doubling the initial number of petroglyphs for the area.

However, there are still many areas yet to be explored, as the location of the carvings coincides with areas on hillsides covered with dense vegetation, meaning that once all these areas have been thoroughly checked the number of carvings will probably increase significantly.

A sufficient number of points were registered for each of the petroglyphs using GPS technology in order to precisely define their perimeter, so that these could then be included in Geographical Information System.
4.2. Reproduction of rock carvings
Reproduction work was made on each of the nine rocks in the park and some of those surrounding it. A total of 25 rubbings were made on plastic, using the method applied in Sweden, adapted to the Galician record. An observation protocol was designed using different types of lighting, and reproduction with rubbings made on plastic. By using this procedure it was possible to locate figures that would not have been otherwise identified (Figure 7).
The non-contact method known as photogrammetry, capable of generating reproductions in 3-D, was also applied to a number of petroglyphs. As this is still at an experimental stage we cannot provide the results of this technique in this article9.

4.3. Excavations around the petroglyphs
Work was carried out on a total of seven petroglyphs within the boundaries of the future park, with a total of nine test pits dug around the carvings (the largest of which measures 5 x 3 metres) in order to evaluate the archaeological potential of the site. Clear archaeological evidence was only found around four of these carvings, meaning that in a second stage the excavation work was extended, reaching the conclusion that in two of these sites, the structures thought previously to have been man-made could have been natural in origin or man-made but from the modern period, supported by the total absence of any prehistoric ceramic or stone materials. This meant that clear evidence was only found in two of the petroglyphs that were excavated, although valuable information was taken from one of them: the petroglyph of Os Carballos, where an archaeological level was found, characterised by being more densely compacted in comparison to the other levels. It contained what could have been a minute pottery fragment, a fragment of allochthonous clay, a rounded percussive stone and several stone chips, as well as what may be a post hole and a small open channel, which may have served to drain away water that accumulated on the petroglyph (Santos 2005b: 5). This level of Os Carballos was the only one found to have archaeological evidence, and was dated to around the first half of the first millennium BC (Figure 8). As an initial interpretation, it seems we are only able to affirm that there was a moment of use of the petroglyph between the eighth and fourth centuries BC, which would appear in this case to confirm the chronology proposed at the start of the chapter.
It is important to note that within the excavations carried out as part of the framework of this project as well as in the context of public works projects, this is one of the few cases in which we have found prehistoric remains around a carving. It may be that the appearance of these remains is due to the features of the Os Carballos site, as it is the only petroglyph from amongst those studied situated within a depression, where material washed down has accumulated; in the other petroglyphs, erosion has eliminated the archaeological levels. In fact, the petroglyph was buried until the 1980’s, as its location and the geological features of the area meant that sediment had accumulated after being washed down from the higher areas, effectively sealing the structures that were documented.

4.4. Cutting of trenches
Apart from the samples taken from around the petroglyphs, a series of mechanical trenches were dug with a backhoe in different areas of the park. These trenches were 0.5m wide and of varied length, reaching a total of 2 kilometres. The trenches were distributed around the most significant areas of the park. In all cases the trenches were dug down to the base rock, with a depth varying between 0.5m and 3m. The trenches were dug for two main reasons: to check for the presence of remnants of activity related with rock art or not in the area, such as settlements, burials or any other type of structures; and also, to obtain soil readings of interest to contribute towards the paleo-environmental reconstruction and geomorphological studies of the area10 (Figure 9).
It was not possible to locate any evidence of the settlement, as we did not find any
pottery fragments, clear signs of stone tool production or structures such as cabin foundations, post holes or pits. The physical-chemical and pollen analyses would appear to confirm the hypothesis that there is evidence of livestock farming from the time, and that the area was never cultivated. We should point out that in 2006, during archaeological monitoring work prior to the construction of the building that will hold the interpretation centre; the negatives of several structures excavated in the base rock were found, together with the remains of stone and ceramic materials. Without the results from the radio-carbon samples, it is still too early to make a chronological or functional proposal for the site, although the small amount of material and the lack...
of clarity of the structures means that we are still sceptical about the possibility of this being an area of domestic settlement from the same period as the petroglyphs.

In closing, we would mention that the opening of the Rock Art park is planned for 2010, and will be undoubtedly the culmination of intensive documentation work on the prehistoric context of the area which has been carried out not only from an archaeological point of view, but also from that of other social sciences such as anthropology and history, as well as biology, soil science, chemistry, etcetera, involving the combined experience of national and international researchers. This integrated work has made the project a unique case in Spain, and probably in Europe. We believe it to be a good example of research into Rock Art, and as such it may be exported to anywhere else in the world, particularly if we take into account its benefits in scientific and social terms.

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Footnotes
1. Visit carried out within the framework of the Project entitled Emergence of European Communities (2002-2006), within the VI Framework Programme of the European Community for actions of research, tech-

2. Project under the direction of Lasse Bengtsson.

3. There is not even any consensus amongst Galician researchers on how to describe prehistoric Galician rock art: for some authors it is the “Galician Rock Art Group” (Peña 1992), a category which includes all prehistoric artistic manifestations, without making any distinctions according to style or chronology. This style defined by other authors corresponds in general terms to what we consider as “Atlantic Style Rock Art”.

4. Simple circles with or without a central cup mark, horseshoes, circles divided into two or four parts, squares divided in two or four, reticular shapes, and stylised human figures. For Santos Estévez (in press) these elements form a part of the style he refers to as Schematic Atlantic Rock Art.

Fig. 9. Samples being taken from one of the trenches in the park.
5. These are more or less evolved copper models with a triangular blade, with or without a central crest, and with or without grooves running alongside the blade, but always in direct relation with local production typical of the transition between the third to second millennia (Peña Santos, 1992).


7. Supported by: General Heritage Directorate (Department of Culture and Sports -Xunta de Galicia)

8. The programme is financed through the following projects:
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Emergence of European Communities, project HPRN-CT-2002-00230 of the Action Research Training Networks, from the VI Framework Programme of the European Union.

9. Project directed by Dr. Juan Vicent from the Institute of History (CSIC) (Spain).

10. Work directed by Prof. Antonio Martínez Cortizas del LPPP (University of Santiago de Compostela)

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Bibliography

Anati, E.


Bradley, R; Criado Boado, F.; Fábregas Valcarce, R.

Bessone, G.; Ricciardi, P.; Seglie, D. 1972. Figure antropomorfe scoperte a Cequeril-Galizia (Spagna). Bolletino del Centro Camuno di Studi Preistorici, 8: 254-5. Capo di Ponte.


1998 Los espacios del arte: construcción del panel y articulación del paisaje en los petroglifos gallegos, Trabajos de Prehistoria, 55, 73-88.

1999 Espacio cultural y espacio salvaje: la construcción de territorios en la Edad del Bronce en Galicia. Presentation at the I International Congress of European Rock Art (Vigo, 1999)-


