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IRON AGE STUDIES FROM SCOTLAND TO MAINLAND EUROPE

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Marking landscapes through time

Atlantic-zone hillforts with up-right stone rows and their relationship with coastal routes¹

Luis Berrocal-Rangel, Pablo Paniago & Lucía Ruano

1. Introduction

Maritime contacts between Atlantic territories have existed since the 3rd millennium BC. There have been several archaeological finds dating from the Early Bronze Age onwards across these coasts that support this idea, such as the boats of Ferriby (Yorkshire), Brigg (Lincolnshire), Dover (Kent), Broighter (Northern Ireland) or Oia (Galicia). These discoveries suggest the possible marine routes that would connect the Atlantic Arc from Scotland to the Iberian Peninsula, favouring similar developments within very distant regions. Among other aspects, these similarities can be seen in certain types of defensive architecture, like hillforts with up-right stone rows, a feature commonly known as ‘chevaux-de-frise’. These types of defence can be found in settlements from Scotland, Wales, Ireland, France, Spain, Portugal and Italy. We propose a common background for the examples from the Late Bronze Age and Early Iron Age, in spite of the different settlement locations, some being on sea-cliffs and others in river gorges, although both share the same topographical layout. This suggests the sharing of ideas and techniques among people from distant territories that led to similar processes indicating a shared past.

2. Traditional and prehistoric sailing along the Atlantic coast

During the Middle Ages, relationships between the remote territories of the Atlantic coast were fixed by the development of the traditional ways of exchange and, in addition, the pilgrims’ routes to Santiago de Compostela. Before that, however, there were many earlier routes, which we can suggest stretch back to at least the end of the Neolithic period in the 3rd millennium BC. As Waddell (2010: 271) claims: ‘The importance of the Atlantic seaways as a means

of long-distance communication in Irish Prehistory may have been exaggerated in the past, but there is no denying the probability of contacts along the shorter stretches of the Atlantic coasts in prehistoric times.’

It is unnecessary to talk about DNA and genetic halogroups such as R1b, or Y chromosome genetic distances (Haak *et al.*, 2015; McEvoy & Bradley, 2010: 132–133), because there are enough archaeological remains and existing tracks to suggest the routes of these Prehistoric ways, not only coastal but also maritime, stretching from southern Portugal to Ireland and Scotland. These relationships were especially strong during the 2nd millennium, the so-called ‘Atlantic Bronze System’. According to Cunliffe (2008: 269), at that time, Atlantic Europe was a ‘vibrant place – a place of energy and assurance, interconnected as never before. Commodities were moving across the continent and around the coasts at a rate previously unknown and with them flowed ideas, so creating a remarkable degree of similarity across huge territories’.

North-Atlantic trade winds and the Gulf Stream, in fact, do provide favourable conditions for sailing along the European Atlantic with trajectories north-south being favoured over the opposite routes especially in southern Portugal between the Gibraltar Strait and Cape Roca (Oliver, 2005: 732–734). This wind and current regime neutralises the natural drift for ships sailing north-south, which would force them onto the coastal cliffs that are very common along the Atlantic shores (Garret, 1996: 97). Before there were ships with complex rigging, therefore, sailing along these coasts was short and occasional, putting more importance on inland exchange routes. The only way to mitigate these disadvantages was through human strength and, indeed, the oldest ships show the importance of paddles and oars, rather than sails, with appropriate designs and sizes.

Nevertheless, our knowledge of Atlantic Bronze Age ships is scanty with not more than twenty wrecks known between the Mediterranean and the Atlantic seas. About ten of them are located along the British coast, sites like the Humber estuary, Dover, Southampton Water, and the Severn estuary, all dated to the 2nd millennium BC (McGrail, 1993). There are also quite famous ship models, such as the Brougher boat from Ulster (Raftery, 1983: 268–270), and astonishing engraved representations, such as those from Oia, Galicia (Costas & De la Peña, 2011: 91–93).

The first well-dated ships in the British Isles are small and simple structures, closer to canoes or leader boats, and they were used for travelling along rivers, over marshes and across bays (Cleary, 2016: 140–145; Fry, 2000; Mowat, 1998; Lanting, 1997–1998). Logboats are well known from Friarton, Perthshire, Scotland (Strachan *et al.*, 2012) to Lough Neagh, County Tyrone, Ireland, and they became more abundant at the end of the 2nd millennium, the Late Bronze Age. These include the funeral boats and models of Barns Farm, Fife, Lough Eskragh, also in County Tyrone (Waddell, 2010: 18–19, 278; Watkins, 1980) and the Fengate examples (Dunkely, 2014: 194). Unfortunately, it is possible that many of these examples are more modern (McGrail, 1983: 38, 2014; Gibson, 2013: 72–73, Fig. 3.1).

The Ferriby I boat from Yorkshire and the one from Brigg, Lincolnshire, found either side of the mouth of the Humber River, are well dated to around 1350 BC. They provide evidence for equipment such as capstans, and show us the level of craftsmanship used in making wooden boats. These are the same techniques used for Neolithic leader boats, a hull made with sewn planks that avoids the use of bronze nails, which are expensive, heavy and not appropriate for hulls. This building technique requires improvements, such as the use of support ribs for bigger ships as used from the Iron Age (Wright, 1990). Even though these boats were not very big, they were large enough to make medium distance crossings, such as the English Channel judging by the boat found at Dover (Clark, 2004).

This evidence, therefore, suggests that during the Atlantic Bronze and Iron Ages there were ships of a good size and capacity, with strong hulls built with ribs and beams, of slim design whose aerodynamics were designed to utilise human strength. A good example is the 14 m long boat from Hjortspring, Als Isle, Denmark, dated to between the 5th and 3rd centuries BC, a true precedent of the later Viking ships. This kind of ship could cope with strong winds and the unknown water depths of sea and rivers, with a great number of oars and the use of the jib crane system that enables a movable mast, as has been suggested for the Ferriby I vessel. With ships like these, long coastal sailings were possible, although deep-sea crossing would not be feasible until the introduction of fixed spars, as seen in the Iron Age model from Brougher found in Lough Foyle near to the southwestern Scottish coast. This model shows a true ocean-

going vessel, with stem and stern, perhaps with a lost keel, a row of nine pairs of oars, cross-spars and deck beams and probable benches for the oarsmen (Kelly, 2015: 128). Thus, it is a boat similar to the contemporary Mediterranean ones, sometimes called ‘Tartessian’ or even ‘Phoenician’, with a parallel being that from Caergwrle, Clwyd, Wales, which is a model carved in shale, gold and tin (Redknap, 2011: 58). However, both models have clear similarities to the traditional Irish currachs bringing to mind the Iberian engravings, from the Cadiz to Galicia coasts, but especially the example at Oia Bay in southern Galicia (Mielke & Schuhmacher, 2011).

With so few examples, trying to establish the main crossing routes through the English Channel, as McGrail did (1993), can be little more than speculation, although known traditional routes are suggestive (Bowen, 1972; Castleden, 1993; see Fig. 11.1). From these it is possible to get an idea about the more useful maritime routes and anchorage points based on traditional sailing, that is coastal navigation with small interconnected routes taking advantage of small sites for anchoring to produce longer routes between the Irish Sea and the English Channel. This is similar to the medieval coastal way around Scotland, which links with Wales and southern England via the Irish Sea, ending at the mouth of Thames. In addition, the small coastal route between the estuaries of the Humber and Tyne rivers matches closely the finds at Ferriby and Roos Carr. The crossing of the English Channel would be made using the anchorages, *i.e.* harbours, of the Isle of Wight, Christchurch and Portsmouth, crossing to Saint-Malo, Batz reaching Nantes and Bordeaux by Saint Mateo Cape and Ushant Island. This route would end in Setubal, south of Lisbon, after crossing the Bay of Biscay. On the western side, the network of deep-sea routes was limited by more exposed conditions, which linked western Irish harbours, such as Galway and Dingle, to Brittany, taking seven days in the autumn with optimal conditions and without the need for stopovers (Callaghan & Scarre, 2009: 363).

3. A network of things, peoples and ideas: from the Late Neolithic to the Atlantic Bronze Age

From Neolithic times, farming communities from Portugal to Sweden have required similar resources that guarantee their survival and growth, producing widespread distributions of characteristics, such as the practice of collective burials in megalithic tombs. This is often explained as a part of a common ideology, for example assigning this astonishing architectural tradition to cosmic and other sacred beliefs. It may be that similar phenomena can be explained as convergences due to common processes of change as occurs at other times and in other continents, such as China, Malaysia and Morocco, for example (Arias, 2007: 66–68). However, when similarities occur in complex phenomena they may be the consequence of continental-wide relationships.



Fig. 11.1: Proposed sailing routes in Bronze and Iron Age western Europe, according to Bowen (1972) and Castleden (1993), and concurrences with hillforts with up-right stone bands. The sites are quoted in the text (author).

The resemblance between the simple plans of the Scottish tomb at Clava, Inverness, the Portuguese Pai Mogo, Lisbon and the Spanish El Toriñuelo, Badajoz with standing-stones around them could also be explained as convergence due to the simplicity of the forms. It is, however, more difficult to use the same explanation for the more complex tombs, such as the Scottish Maes Howe, the Irish New Grange and the Spanish Los Millares, all with ‘court entrances’, which closely resemble the Irish court tombs (Eogan, 1990). It is difficult to believe that these similarities were produced by the same people moving from one place to another, but they could be explained as specialised answers to a common ideology. Engravings on standing stones, and on the walls and roofs of passage graves are so similar between New Grange in Ireland, Galicia, and Les Almendres in southern Portugal, that Parker-Pearson (1995: 75) comments that ‘cup-and-ring was a pan-European style, from Central Europe to Scandinavia to Iberia’.

Although we cannot be sure about what these similarities mean, the correlation between the passage-grave distribution and the main coastal sailing routes is well known – from the north of Scotland to the Irish Sea, Cornwall, Saint Mathieu/Ushant, the Ré and Olerón Islands, La Corunna and Lisbon (Fig. 11.1). Movement in Late Neolithic times took advantage of these easier coastal and riverine routes, the traditional networks of exchange in later historic times (Cunliffe, 2008: 136). Many of these smaller routes were used for exchange throughout the 3rd millennium BC as part of the ‘Bell Beaker Network’. Common ideas and beliefs are clear considering the extent of Bell Beaker pottery and archers’ equipment, as preferred in western Europe, while in northern Europe battle-axes occur more frequently (Cunliffe, 2008: 203). It is probably not a coincidence that this spread was contemporary with the construction of the most complex megaliths.

The most important element of these Bell Beaker distributions is not the large-scale migrations of Indo-European speakers, as many specialists now argue, but the emergence of the important individual as the main social value. This is inferred from the single-grave burial rite that was probably adopted and adapted from the Corded Ware traditions of the earliest Bell Beakers in the Low Countries (Lanting, 2013: 65–67; Prieto & Salanova, 2015). Strong evidence of the emergence of this elite is the appearance of the splendid gold work throughout all of Atlantic Europe and especially in Ireland. The beginning of gold extraction in the Wicklow Mountains is dated to 2200 BC and linked to the production of the well-known Irish *lunulae*. These objects, along with bronze discs, swords, shields and torcs, were artefacts whose value was ostentatious and show a necessary component of the chieftdom system. The torcs became items of Continental exchange from the oldest and simplest, such as the ‘paddle torcs’ from Aberdeenshire and Córdoba, to the more complex ones, including the Irish bar torcs from Corrad, County Fermanagh, and Bodonal in

southwest Spain. The distribution of these items correlate with the routes taken by megaliths and Maritime beakers (Gibson, 2016: 98; 2013: 74–76; Cleary, 2016: 145–147).

The whole of the 2nd millennium BC, therefore, witnessed the success of these elite exchanges, reflecting a warrior society whose princes and princesses needed to maintain their elite positions by investing many resources in exotic goods, giving rise to continental exchange on a scale never seen before. Many of these items appear in the archaeological record as individual objects in rich graves. To maintain their position these elites adopted megalithic traditions and adapted them to their requirements so that, for example, menhirs became stelae (Díaz-Guardamino, 2008).

Along the Atlantic Portuguese and Spanish coastal areas, there are menhir traditions going back to the 3rd millennium BC. In the middle of the 2nd millennium BC warriors and princesses’ stelae appear with mixed features, including phallic menhirs and anthropomorphic sculptures. The best example is the stone circle of Les Almendres, where menhirs represent persons wearing disks and *lunulae*, or diadems. There are other powerful examples of female, Ermida, Viana do Castelo, and male, Longroiva, Guarda, figures. The elites were now represented with equipment appropriate to their rank, including items of gold (Celestino, 2001; Harrison, 2004).

These monuments are precursors to the Late Bronze Age Iberian stelae, the so-called ‘warriors and princesses’ stelae’, which represent chiefs with their male symbols of swords, shields, socketed spearheads, horned and crested helmets, lyres as musical instruments and two-wheel chariots. The women are shown with diadems, torcs, disks and brooches – perhaps symbols of the female monopoly of gold (Berrocal-Rangel, 2012). These were the face of the first pan-European elite, which included elements such as dress, culinary habits and, probably, languages. The Atlantic network was, therefore, expansive not only for people and crafts but also for habits, beliefs, legends and ideas (Bradley, 1997; Gibson, 2016; 2013; Harrison, 2004).

4. Hillforts with up-right stone rows: a particular defence from the Mediterranean to the northern Scottish coasts

With the Bronze Age change of sea routes, the western Irish coast acquired an importance based on longer distance navigation compared to the routes based on the small coastal networks of Neolithic times (Castleden, 2002: 114–116, Fig. 35). This has a bearing on the interpretation of fortified settlements and characteristics such as the up-right stone rows known as ‘chevaux-de-frise’ (Alonso *et al.*, 2003; Cotter, 2012; Harbison, 1971; Ralston, 2006: 85–88). Regardless of the dates of these and their associated hillforts, whether Medieval or Prehistoric, their locations are along these same routes from the Late Bronze Age with the

best-dated examples being from the Iberian Peninsula, also of this early date (Berrocal-Rangel, 2018; see Fig. 11.1).

As Ian Ralston (2006: 85) has pointed out, some hillfort landscapes from Scotland, Wales, Ireland, Portugal, Spain, France and Italy share a striking similarity showing restricted bands of upright, jagged stones outside and in close proximity to the ramparts. Similarities between them outweigh their apparent differences, such as locations on sea-cliffs in Ireland or river gorges in Spain, or their dates, which range from the Late Bronze Age until the Roman Empire or, even, Medieval times (Cotter, 2012: 22; Ralston, 2007: 123). In a recent paper we have argued for a common background for these defensive features, at least for the examples dating from the Late Bronze Age and the Early Iron Age (Berrocal-Rangel, 2018). Although these prehistoric defensive features can be explained as a rather simple additional element of defensive outworks, one so basic that it does not represent any special cultural link, the differences in location suggest otherwise. For example, locations on sea-cliffs in Ireland are common, whereas in Spain there are none close to the coast; this comparison is, however, relative, because many Spanish sites are actually on river gorges which replicates the same topographical situation and layout, only inland (Fig. 11.1, 1–2).

A detailed study of the best-known examples from Spain and the British Isles, with a few additional sites from Portugal, France and Italy, shows shared morphological features of the locations of all sites (Berrocal-Rangel, 2018). For example, across the Spanish plateau we know of many upright-stone band settlements located on promontories within high mountains, above 1500 m, such as El Castillejo de Valdeavellano in eastern Castile, or above confluences of rivers, for example Castro de Saldeana in Salamanca (Fig. 11.1, 1–2; Fig. 11.2 and Fig. 11.3, 1–2). Many of them are dated from the 8th century BC to the Late Iron Age and,



Fig. 11.2: Up-right stone band of the Iron Age hillfort of Saldeana (western Spanish Plateau), view from the ramparts (photograph by Luis Berrocal-Rangel).

although there are significant differences between all of these settlements in relation to dating, size, walls and military use (Berrocal-Rangel, 2018: types A and B), their upright-stone bands are the same. They have outworks with similar defensive capabilities with areas of stones along the most open and accessible face of the ramparts, with or without ditches, and with stones close-packed and randomly arranged. In addition, the walls of these hillforts are quite similar, usually univallate enclosures constructed with thick dry-stone walls, sometimes having *muris duplex*, and with a small number of round or square bastions. Sometimes they are not enclosed because they are beside deep ravines and cliffs, which make it unnecessary to have ramparts and other types of defence. Despite the recognised differences in size and defensive capabilities of these sites, both types are good examples of what Peter Harbison called ‘cliff-hanger hillforts’, referring especially to Dun Aenghus in Galway (Cotter, 2012: 49–51.; Harbison, 1975: 210; Waddell, 2010: 228). In fact, comparing the sea to the rear of Dun Aenghus to the ravine at the rear of Saldeana, the similarities are striking (Figs 11.2 and 11.3, 1–2). Although, as Claire Cotter (2012: 197–199) reminds us, Dun Aenghus is a unique site in the British Isles and one of the main leaving points for sailing to Santiago de Compostela in the Medieval period (Bowen, 1972: 118, Fig. 43).

There is a second group of sites with shared features that are more widely represented through the European Iron Age. This group consists of isolated examples, usually unique in each area but present in Ireland, Wales, France, Spain and probably Italy, with examples such as Doonamo, Castell Henllys, Pech Maho, Els Vilars and perhaps Coppa Nevigatta (Berrocal-Rangel, 2018: group ‘C’; see Fig. 11.3, 3). All of them are situated on plains, low hills or on a river terrace, but all are in a dominating position over the surrounding landscape. They are small and medium sized sites, between 0.5 ha and 5 ha, univallate enclosures built of vertical dry-walled stonework. Bastions and towers are located along the walls, with bands of upright stones outside them, with or without a ditch. Their most singular feature, however, is that the upright stones are relatively few and are arranged in linear rows. These sites are dated through the Iron Age and later.

A possible site in Scotland is Kaimes Hill, Midlothian, where two neighbouring hilltops form a ridge and the site, on one of them, was destroyed by a quarry in the late 1940s. Although not high, the hill is in a dominant position over the surrounding landscape. Based on a small excavation, the hillfort was discovered with regular rows of stones (Harbison, 1971: 209). According to the pottery, the site was occupied during the Iron Age and its latest phase was represented by circular stone house foundations situated across the interior and running over an old inner wall, but apparently all within the outermost lines of defences. These were dated to the Late Roman period (Feachem, 1980: 137; Harbison, 1971: 199), similar to many sites in inland

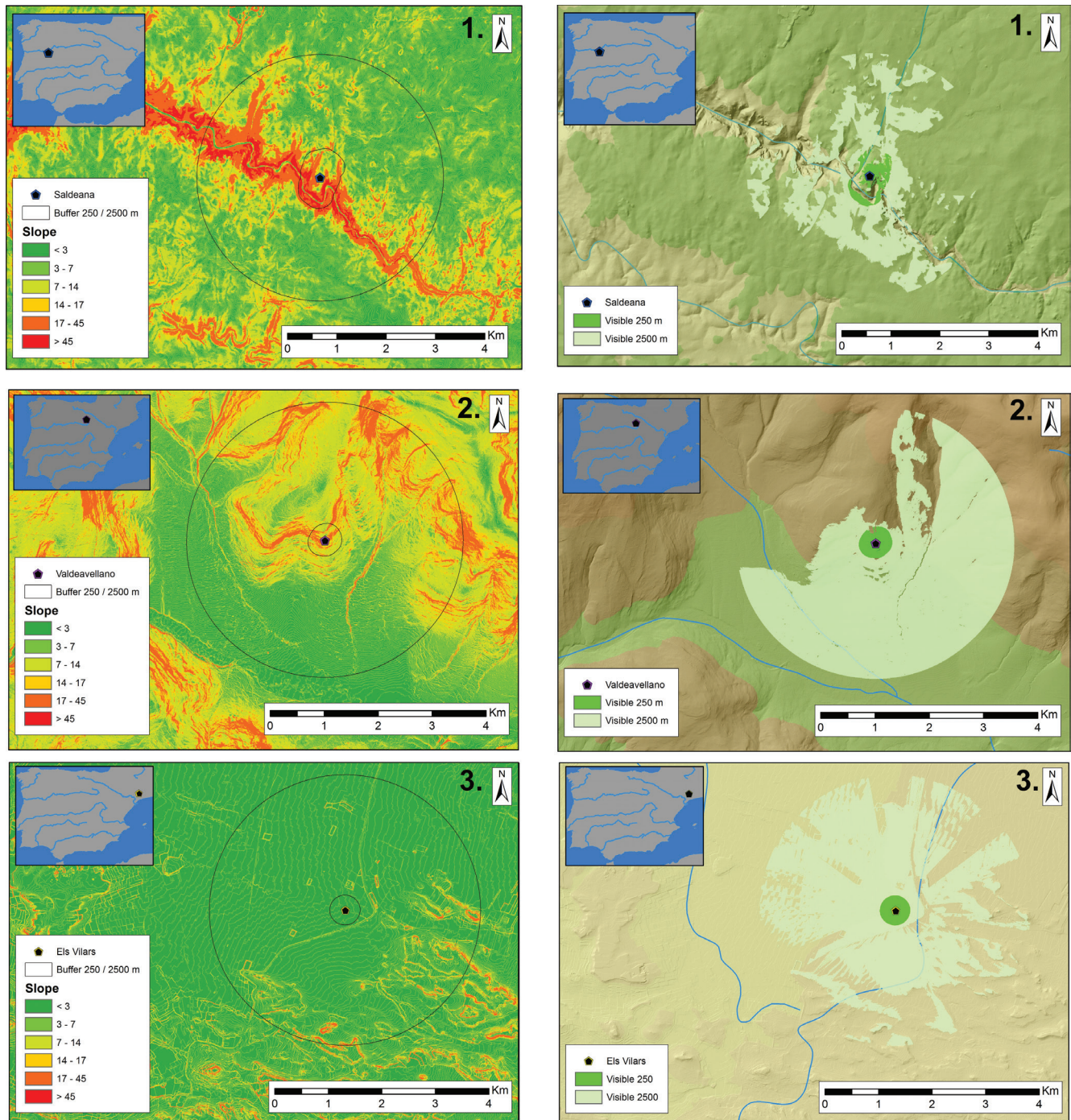


Fig. 11.3: Examples of Spanish hillforts with up-right stone bands: surrounding slopes and visual controls modelled by application of ArcView 10.3 (author).

Asturias, Spain. The most important feature, however, is the presence in an earlier phase of regular rows of stones (Harbison, 1971: plate XVIII). These are related to a radiocarbon date of 365 BC+ 90, which is 597 (82.8%)-174 cal BC according to the Intcal13 calibration curve,² the date of the stones ‘probably only deviates comparatively little from the radiocarbon date’ (Harbison, 1971: 199). This date

is, therefore, contemporary with many similar examples of regular rows of stones such as Castell Henllys in Wales, or Pech Maho in the south of France (Belarte *et al.*, 2011: 59; Mytum, 1999: 165–167., 2013: 35). A little older is the same feature at Els Vilars in inner Catalonia, dated to between the 8th and 7th centuries BC (G.I.P., 2003: 250–252; see Fig. 11.1, 3; Fig. 11.3, 3 and Fig. 11.4).



Fig. 11.4: Up-right stone band of Els Vilars (Catalonia), arranged in regular rows (Photography by Luis Berrocal-Rangel).

Compared to other types of upright-stone bands, we have argued that this kind of device might have been designed for complex defensive systems, although this is not obvious from a military point of view and they might reflect other functions, perhaps of a symbolic or ritual nature (Berrocal-Rangel, 2018).

5. Conclusion

As Harbison (1971: 195) wrote: ‘Spanish-Portuguese examples on the one hand, and the Scottish-Welsh-Irish-Manx ones on the other, are not so closely related to one another as has hitherto been thought, but that both are merely distant cousins in so far as both are descended from a common ancestral wooden prototype which originated probably in Central or Eastern Europe.’ Some decades later this idea is supported by our improved knowledge of the sailing capabilities of the peoples of Atlantic Europe through later prehistoric times. This is also supported by the distribution of gold and bronze artefacts, from the simplest paddle torcs of Aberdeen and Córdoba to the most complex Irish torcs and discs, which are also found in Scotland, Ireland and Portugal. The study of building traditions adds more information about the circulation of these valued items. Even if these are only simple complementary elements of defensive outworks, like the ranks of serried up-right stone rows, we would argue that they show the movement of ideas, techniques and resources across areas where social developments and environments were shared. In this sense, these elements related to enclosing spaces are opening up new ground for the understanding of a shared past.

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Notes

- 1 As an old European contact, one of the authors of this paper (L. B-R.) had the fortune to meet Professor Ian Ralston many years ago in the early eighties when Ralston was a young Archaeology lecturer, travelling twice a week from Edinburgh to give classes at the School of Geoscience in Aberdeen. At that time, Luis Berrocal-Rangel was a young Foreign Assistant in the Spanish Department of this University although with a strong interest in archaeology. He asked permission to attend Ralston’s classes, which was granted thanks to Jim Inglis of the Marischal College Museum. From then on, a long and ongoing relationship of friendship developed. Ian Ralston became Professor of Later European Prehistory in the University of Edinburgh, while some years later Luis Berrocal-Rangel reached the position of Professor of Later European Prehistory in the Universidad Autónoma de Madrid. Both of them are specialists in hillforts and Iron Age Fortifications. The authors of this paper want to express their gratitude to Professor Ralston for all his teachings and great generosity.
- 2 Using Oxcal 4.2: <https://c14.arc.ox.ac.uk/oxcal/OxCal.html> (accessed 02/03/2017).

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