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# THE BELL BEAKER TRANSITION IN EUROPE

MOBILITY AND LOCAL EVOLUTION  
DURING THE 3RD MILLENNIUM BC

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*edited by*

Maria Pilar Prieto Martínez and Laure Salanova



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*Back cover: Cushion stones, gold ornaments and Beaker pottery in the artificial cave of São Pedro do Estoril, Portugal (Blech et al. 2001, pl. 70b; © P. Witte, Deutsches Archäologisches Institut, Madrid)*

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## LONG-DISTANCE CONTACTS: NORTH-WEST IBERIA DURING THE 3RD MILLENNIUM BC

*Carlos Rodríguez-Rellán, Antonio Morgado Rodríguez, José Antonio Lozano*

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*Due to its peripheral situation, north-western Iberia has been traditionally contemplated as a territory that was relatively isolated from the long-distance trade routes that would have existed across the Peninsula during late prehistory. Furthermore, if these contacts took place, they have been considered to be restricted to the closer territories, such as the north of the Duero River or the western part of the Cantabrian Rim and the Spanish Meseta. Likewise, many authors have repeatedly mentioned the possibility of sea contacts between the north-west and other territories of the European Atlantic coast. Nevertheless, these contacts have hardly ever been proved with any certainty. Now, technical similitudes and petrographic analysis have allowed us to confirm the presence of a blade made from Turón flint (Málaga, Andalusia) within the grave goods deposited in the Chan de Armada I mound (Pontevedra, Galicia). This circumstance provides a basis to revise other possible evidences of long-distance contacts that existed in the north-west and also their possible precedents in former millennia.*

### **Introduction**

The Galician territory, located in the north-west part of the Iberian Peninsula, is part of the Hercynian or Variscan orogenic belt. The lithology of this area is mainly composed of igneous and metamorphic rocks such as granite and schist, while cryptocrystalline rocks like flint are almost absent, it being possible to find only small deposits of chalcedony, opal and jasper (Rodríguez *et al.* 2009). These local cryptocrystalline rocks, although good for knapping, were hardly worked during late prehistory, when the lithic assemblages were made mainly from other raw materials such as quartz, rock crystal or slate (Rodríguez 2010).

This circumstance means that most of the flint found in the prehistoric sites across the Galician territory probably came from other areas of the Iberian Peninsula. Thus, flint items seem to have been prestige goods causing, to some extent, the appearance of a dichotomy between everyday lithic assemblages and those deposited in funerary

contexts. The flint found in domestic sites hardly exceeds 5% of the lithic assemblage (Rodríguez 2010); in contrast, flint artefacts (mainly arrowheads, microliths and blades) represent 65% of the flaked assemblages of north-western megalithic contexts that have been reliably studied up to now (Fábregas 1992).

Despite this supposed non-local origin of the Galician flint, only a small number of specialists have tried to identify its provenience and the way in which it arrived in our territory (Abad 1987; Bello 1995; Rodríguez *et al.* 2009). The scarcity, or even the absence, of petrographic analysis has significantly limited these studies, so the flint sources have had to be identified on the basis of macroscopic analysis of the raw material. In the present study, we bring to light the results of the first petrographic analysis of a prehistoric flint artefact carried out in the Galician territory: a blade found in the Chan de Armada I mound (Marín, Pontevedra). The analysis has allowed us to identify the southern origin of this blade – the

Turón Valley (Málaga, Andalusia) – and, in consequence, to verify the fact that the north-west was not isolated from the long trade routes during the 3rd millennium. On the basis of this new information and the presence in our territory of more allegedly non-local artefacts, the hypothesis of the existence of long distance contacts between Galicia and other parts of the Iberian Peninsula or even Europe is explored and its nature discussed. Likewise, the possible precedent of these contacts during former millennia is also examined.

### **A Turón flint blade in Chan de Armada I mound**

Chan de Armada I is located in the Morrazo Peninsula, one of the several spits of land projected into the sea that exist along the Western Coast of Galicia (Fig. 11.1). The available information about this site is fairly limited, as it came from an old archaeological intervention (1957) during which, furthermore, it was discovered that the integrity of the monument had been seriously damaged by the action of furtive excavations. Moreover, the details of the excavation were not published until two decades later (De la Peña and Rodríguez 1976) because of the death of one of the archaeologists, a circumstance that also made necessary the reconstruction of the exact position in which each archaeological artefact was originally found.

A small polygonal chamber and a short passage composed of 13 orthostats with no capstones conserved *in situ* were documented during the excavation (Fig. 11.2). An accumulation of stones was also found in front of the narrow entrance which, due to its similarities with the evidence found in other Galician mounds (Fábregas and Vilaseco 2006), could be interpreted as the remains of the closure of the monument.

The grave goods recovered from the Chan de Armada mound (Fig. 11.3) comprise two flint blades and 15 arrowheads made on flint, quartz, schist and slate. Besides the flaked industry, two polished axes, two spheroids and non-decorated pottery were found together with ochre and limonite fragments. Some of these objects would have had a special significance, due to their large dimensions or technical characteristics; this is the case of one of the flint arrowheads, which shows a much more elaborate technique than the other projectiles recovered. Regarding the flint blades, one of them is made from a grey, grainy siliceous rock and its dimensions (189 mm) make it the largest blade found in the Galician territory until now. This artefact shows a faceted platform, a relatively marked bulb of force and an average longitudinal curvature that suggest it was probably made by indirect percussion. The second blade, fractured by flexion, was made from a high quality, cream coloured flint; it shows an extremely marked dihedral platform and a practically non-existent bulb of force, both characteristics compatible with pressure flaking.

Both the quality of flint and the large size of the blanks from which the blades of Chan de Armada must have been flaked (incompatible with the characteristics of the local blanks of this raw material) suggest a probable non-local origin of these artefacts. Furthermore, the flaking techniques used during its production – possibly indirect percussion and pressure – imply that both blades would probably have arrived in the Galician territory already transformed. Our conviction about this circumstance is based on the absence, nowadays, of clear evidence of the local development of these techniques during late prehistory, over and above sporadic microlaminar products, derived from technical traditions typical of former periods (Rodríguez 2010).

The raw material and the technical characteristics of the non-fractured blade of Chan de Armada were not determining enough to allow us to identify a specific origin of this artefact. Moreover, we must take into account that the use of indirect percussion seems to have been present in all the production centres in the west and the north part of the Iberian Peninsula (Morgado *et al.* 2009; Tarrío 2006). In contrast, the possibility that the second blade could have been made by pressure flaking reduced the potential sources of origin since, apart from specific examples in the centre and east of the Peninsula, the production of long flint blades by pressure flaking has been mainly documented in southern Iberia. Therefore the technical characteristics pointed to a possible southern origin of the fractured blade of Chan de Armada I, specifically to one of the production centres that would have exploited the flint formations which exist in the Campo de Gibraltar Complex (Cordillera Bética, Andalusia). Fortunately, the lithic production from this region is well documented, both technically (Pelegrin and Morgado 2007; Morgado *et al.* 2009) and from the point of view of raw material characterisation (Rodríguez-Tovar *et al.* 2010).

The Campo de Gibraltar complex consists mostly of allocthonous Palaeogene and Lower Miocene flysch sediments comprising clayey and sandy sediments, locally conglomeratic, that were deposited in deep-water environments or flysch troughs (Rodríguez-Tovar *et al.* 2010). These formations were exploited during almost the entirety of late prehistory; nevertheless, it would have been during the Late Neolithic (end of the 5th and the beginning of the 4th millennium BC) when the development of complex technical processes for the production of long blades (120–400 mm) would have taken place in this area (Morgado *et al.* 2009). Those were based on the elaboration of prismatic blade cores which required a high technical command by the knapper, due to the necessary making of pre-forms or “pre-cores” which allowed a standardised production (Pelegrin and Morgado 2007) (Fig. 11.4).

These blades were obtained by shaping the edge of the core at an extremely dihedral angle so that a precise point for the application of pressure was created; this circumstance produced a specific characteristic which is also shared by

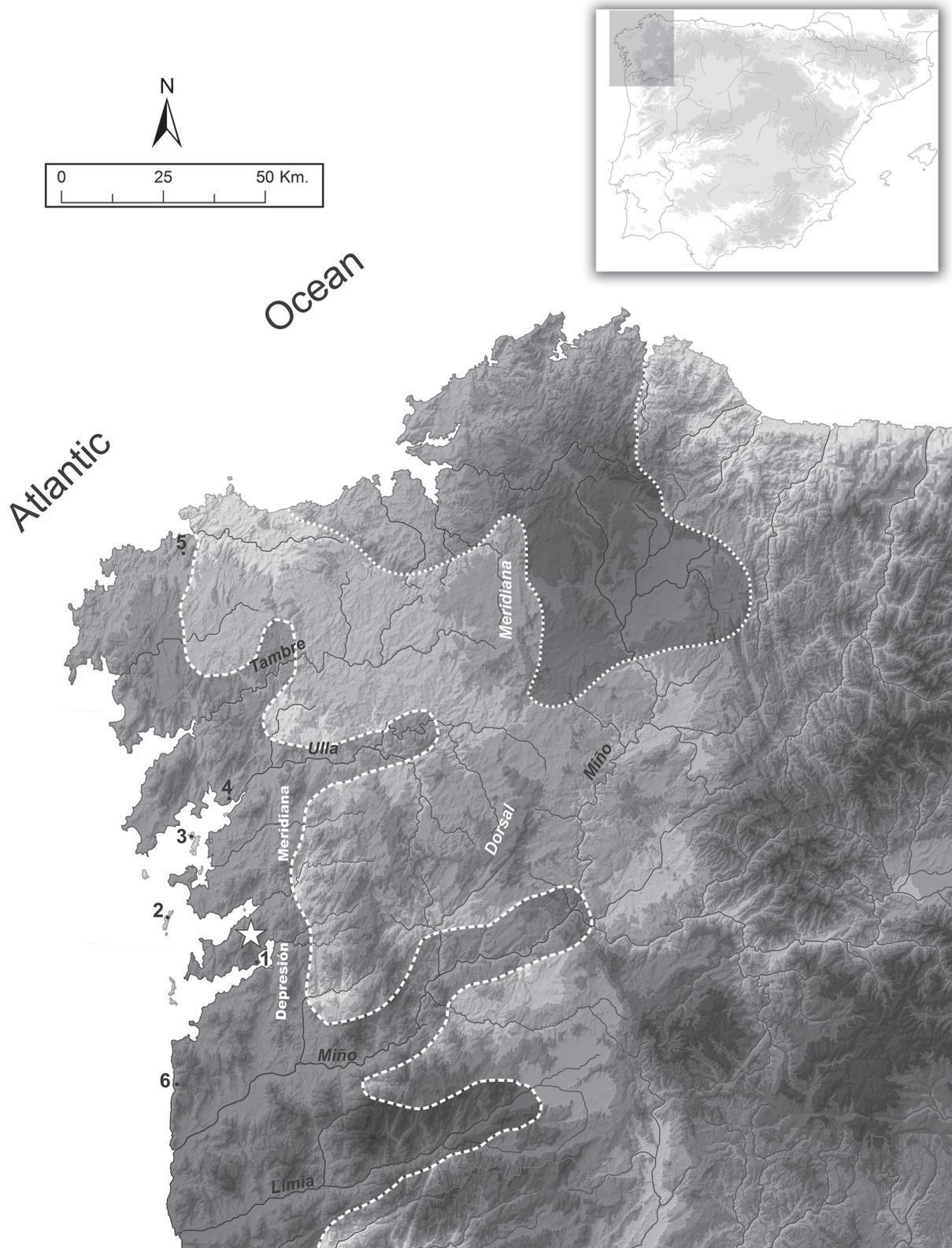


Fig. 11.1. Map of the north-western Iberia with the two main areas of distribution of flint artefacts. Sites referred in the text, Chan de Armada I indicated by a star: 1. O Regueiriño/A Fontenla; 2. Ons Island; 3. Guidoiro Areoso; 4. Os Campiños; 5. Dombate; 6. Petroglyphs containing engravings of ships.

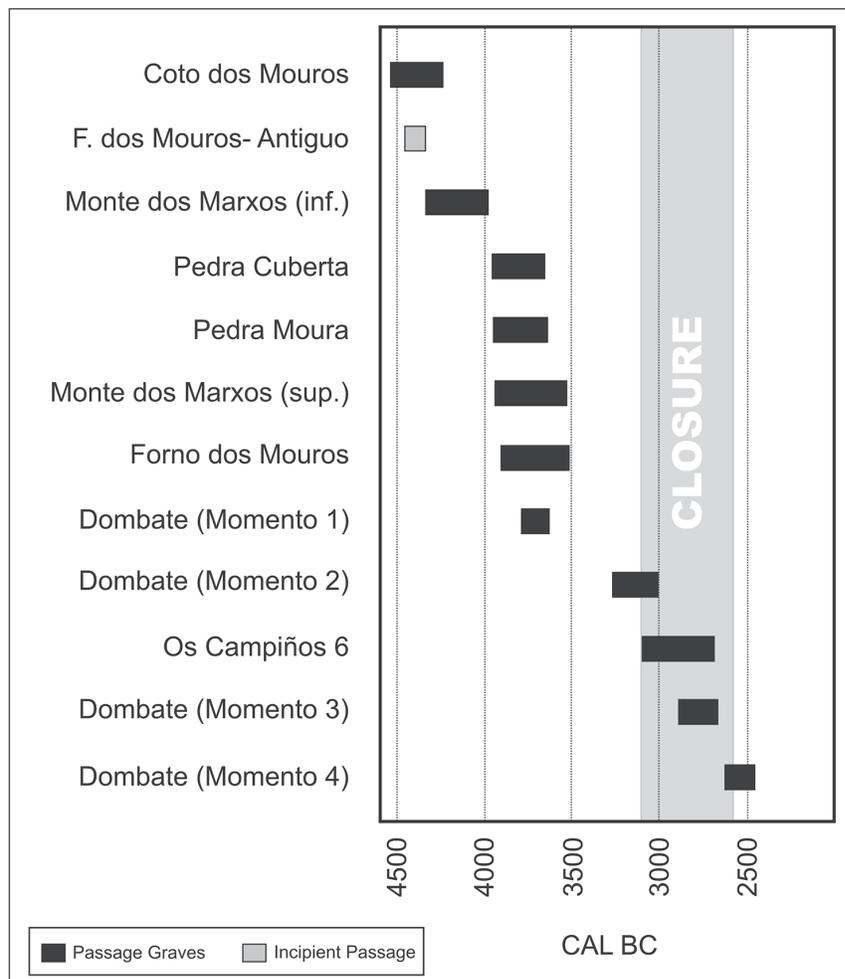
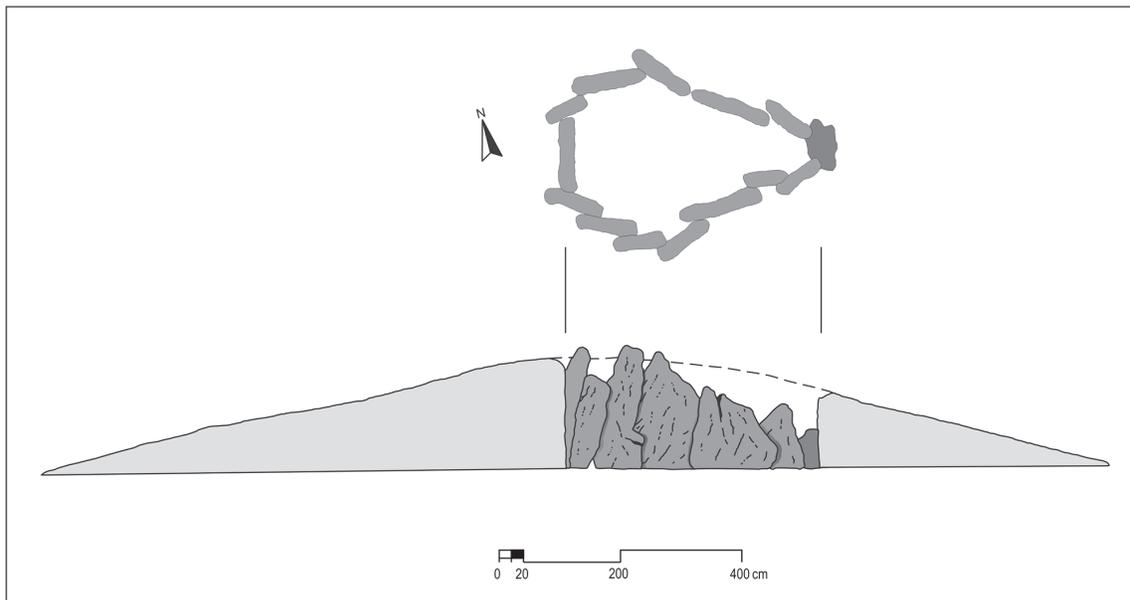


Fig. 11.2. *Chan de Armada I* (De la Peña and Rodríguez, 1976). Radiocarbon dates of Galician passage graves.

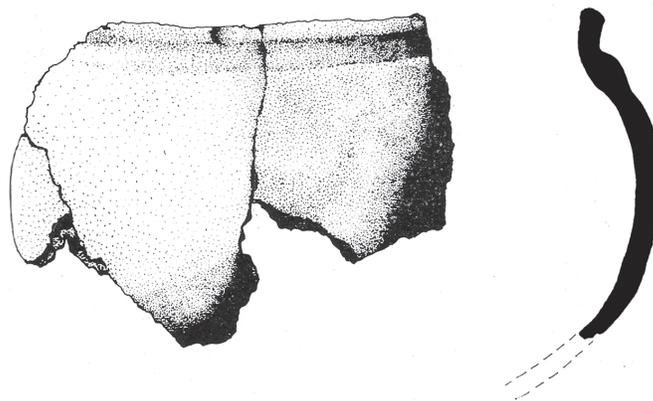
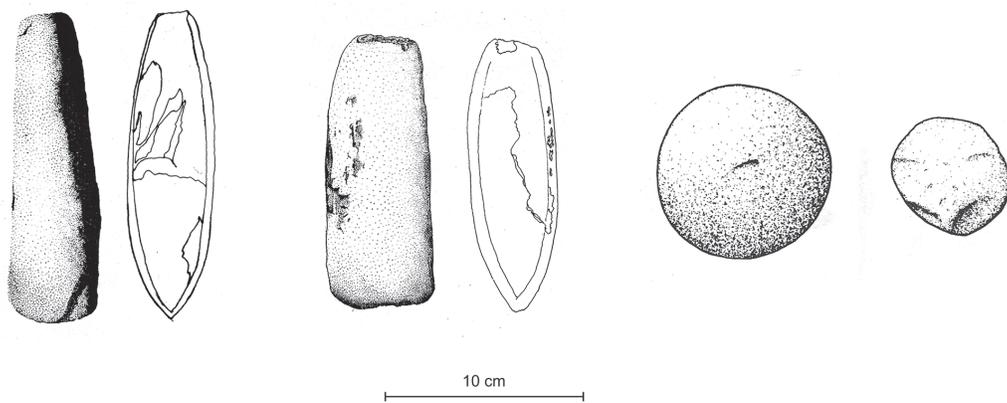
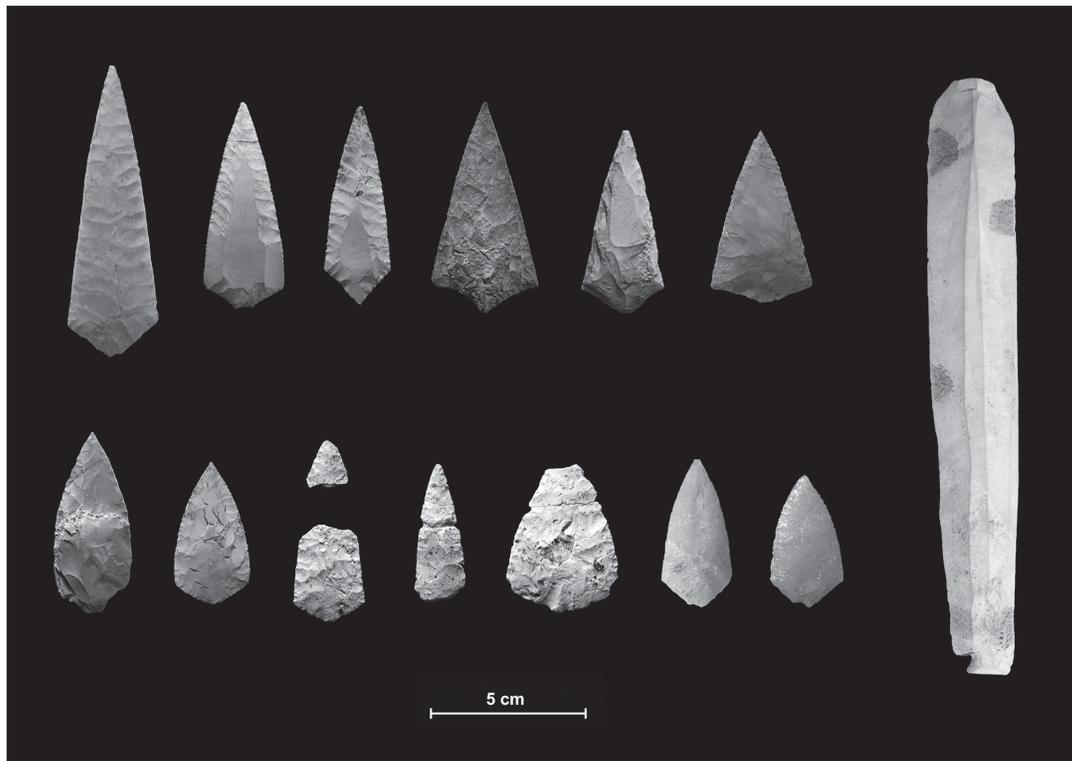


Fig. 11.3. Grave goods from Chan de Armada I.

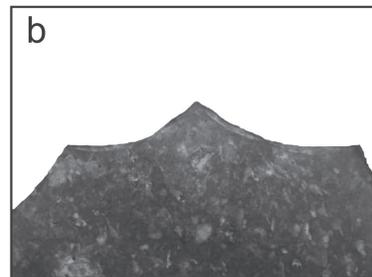
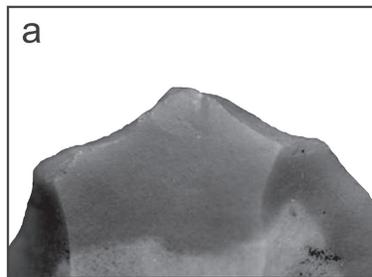
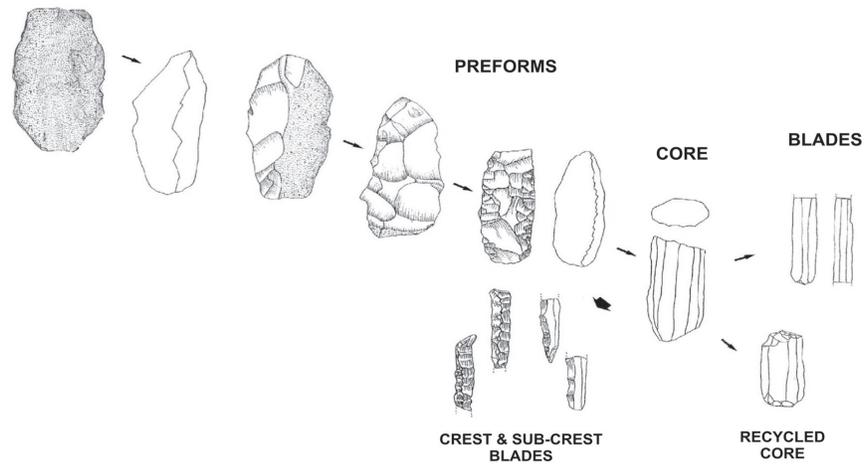
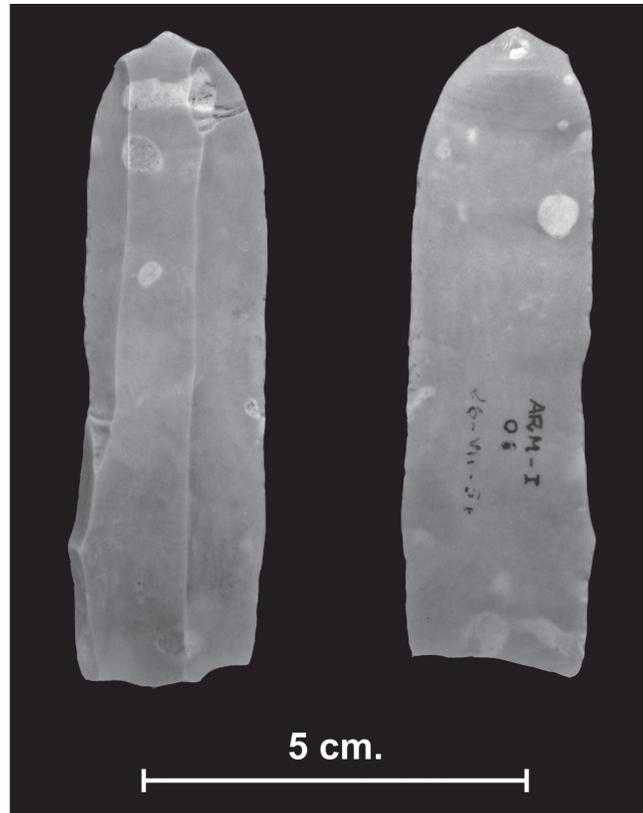


Fig. 11.4. Turón flint blade found in Chan de Armada I. Main stages of the method of production of flint blades in the south of the Iberian Peninsula (Pelegrin and Morgado 2007). Dihedral platform (a. Chan de Armada I; b. Turón flint blade).

the Chan de Armada blade: an extremely marked dihedral platform (Fig. 11.4). The presence of blades with this type of platforms and with high lengths and widths was related with the use of the reinforced pressure flaking (Pelegrin and Morgado 2007). In this sense, the experimental knapping showed that the blades made by reinforced pressure had a minimum width of 22 mm (Pelegrin and Morgado 2007). The Chan de Armada blade shows, in conclusion, technical (an extremely marked dihedral platform) and metrical characteristics (25 mm width) that could be related with the reinforced pressure.

The possibility of a southern origin for the Chan de Armada blade made necessary an analysis of the raw material. The results allowed us to find some characteristics that suggested without doubt that the flint was obtained at one of the quarries of the Rio Turón Valley (Málaga) (Fig. 11.5). This evidence, subsequently backed by the mineralogical and geochemical analysis, was mainly based on the identification in the Galician blade of specific fossil traces: *Chondrites* and *Physosiphon*, biogenic structures resulting from the live activity of an individual organism modifying the substrate (Rodríguez-Tovar *et al.* 2010), which were also identified in the ichnological studies carried out in this area of the Malaga province by the Departamento de Estratigrafía y Paleontología of the Universidad de Granada. This technical and fossil evidence has already allowed the archaeologists to identify blades made from the same raw material in other archaeological sites of the region, such as Los Millares (Almería) or Los Castillejos de Montefrío (Granada), proving a wide circulation of these products across Andalusia. Nevertheless, the new evidence of contacts with the Northwest – 700 km away from the original source of the raw material – turns the Chan de Armada blade into one of the most remote contacts documented in the Iberian Peninsula during the late prehistory.

The specific chronology of the contacts through which the Turón blade arrived to the Galician territory is very difficult to establish, due to the aforementioned problems of the site and to the absence of radiocarbon dates. These circumstances prevent us from speculating with any degree of certainty about the particular moment at which the deposition or depositions of the grave goods were made, and only an approximated relative chronology can be established based on a comparison with other similar contexts in which radiocarbon dates are available. The radiocarbon dates for passage-graves in Galicia suggest that this type of burial chamber reached its height during the 4th millennium. The dates obtained in the closure levels of the entrance of two of these monuments, Dombate and Os Campiños 6 (A Coruña), show that the abandon of the passage-graves seems to have occurred mainly during the transition and the first half of the 3rd millennium BC (Fig. 11.2). The aforementioned existence of a possible closure level in front of the passage

of Chan de Armada I, allows us to raise the hypothesis by which a closure episode –more or less coetaneous with those suggested in Dombate and Os Campiños– could have existed. This circumstance would provide us with a possible *terminus ante quem* for the deposition of the flint blades inside the tomb.

In regard to the lower chronological limit of the deposition, the only information we have is provided by the presence of arrowheads; the studies carried out in the north-western megaliths (Fábregas 1992) evidence that there is no evidence of projectiles in archaeological contexts prior to the transition between the 4th and the 3rd millennia BC. Furthermore, the fact that the artefacts recovered during the Chan de Armada excavation can be considered evolved types of the triangular and convex-bottom arrowheads probably confirms that they were deposited inside the burial chamber during the first moments of the 3rd millennium.

These chronological coordinates are consistent with the limits established for the production of long blades by pressure flaking in south Iberia. This type of artefact appeared in regional archaeological contexts around 4100–3800 cal. BC (Pelegrin and Morgado 2007), reaching their height in the last quarter of the 4th millennium and then gradually disappearing in the middle of the 3rd.

In conclusion, the available information seems to show the possibility that the flint blade made on Turón flint found in Chan de Armada I was deposited inside the chamber in the beginning of the 3rd millennium. Nevertheless, problems with the archaeological context of the site and limited information derived from the intervention hinder any attempt to determine the character or duration of the episode or episodes of use of the burial chamber and also to establish if all the artefacts were deposited at the same time. Due to these circumstances we cannot also deny, although there is no evidence in this direction, the possibility of a reutilisation of the monument at a later time, as seems to have occurred in the neighbouring mound of Chan de Arquíña, especially if we take into account that human presence during the second half of the 3rd millennium was documented only a few hundred metres away from Chan de Armada (García-Lastra 1984–1985).

### **The nature of long distance contacts with the north-west during late prehistory**

The presence of southern items in the north-west clearly shows the existence of long distance contacts between this territory and other points of the Iberian Peninsula during late prehistory. Nevertheless, it is very difficult to determine the nature and intensity of these contacts due to the scarcity of information. The absence both of artefacts coming from well-known archaeological contexts and of petrographic analysis hinders our knowledge about the specific origin

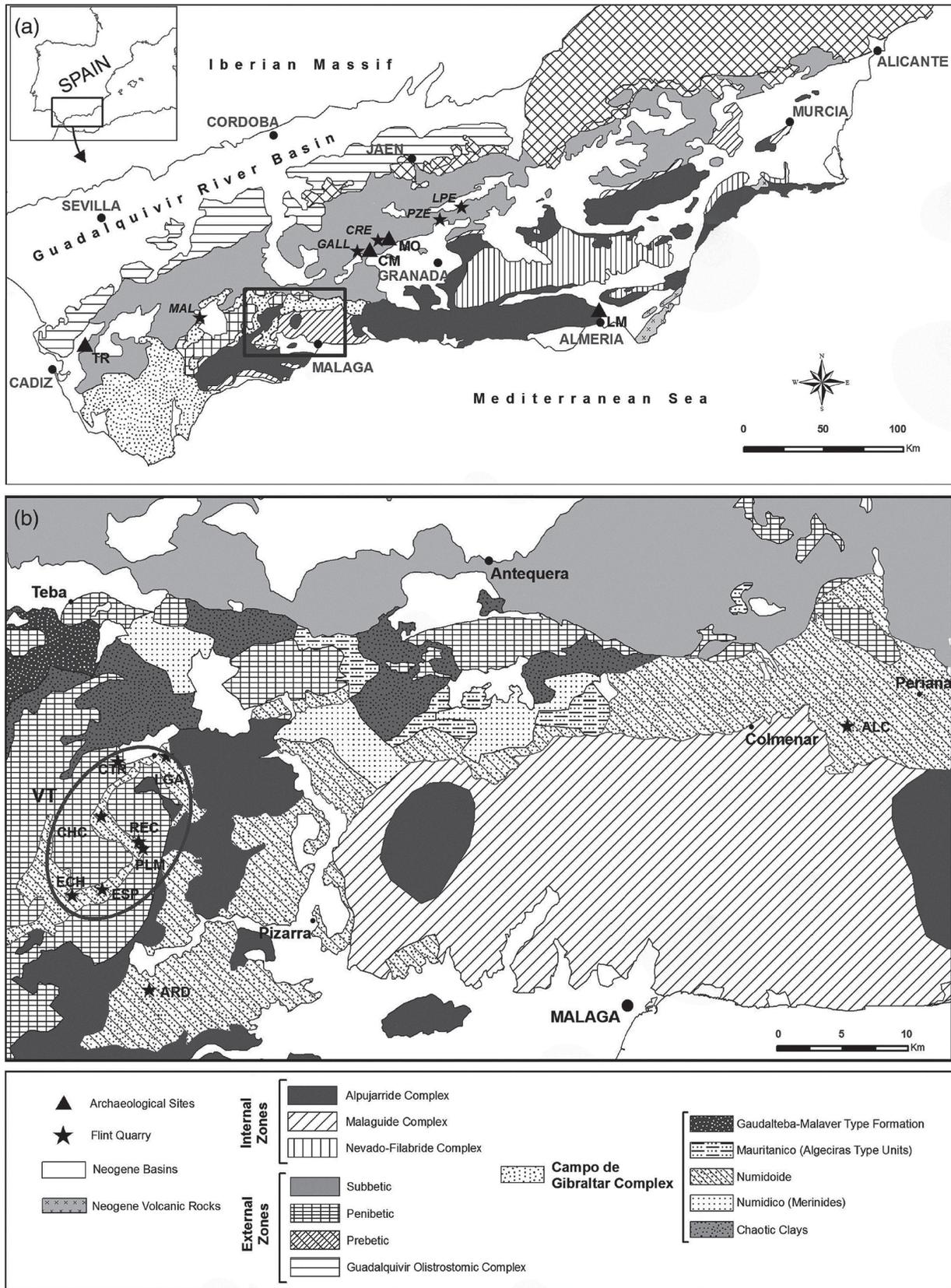


Fig. 11.5. Geological map of southern Spain. VT (Turón Valley) (Rodríguez-Tovar et al. 2010).

of many of these items. So, information about the long distance contacts can be only partially glimpsed through an analysis of the characteristics and distribution of these non-local objects, hoping that the results allow us to establish a hypothesis on how and through which routes they arrived.

As we have already pointed (Rodríguez *et al.* 2009), there are a small number (15) of “long blades” (lengths greater than 100 mm) in the north-west. Most of them were found in megalithic funerary contexts of very heterogeneous chronologies (5th to the end of the 3rd millennium BC). Nevertheless, this number of blades is only a small part of the total amount of this kind of objects that must have come to the north-west, since there is evidence suggesting that many of these blades would have been ruthlessly broken to be used as a basis for making artefacts such as arrowheads (as we can see in one of the Chan de Armada projectiles) or microliths. This circumstance suggests that, in most cases, the prestige of the long blades within the Galician prehistoric communities could have been due to the scarcity of the raw material from which these artefacts were made, rather than their dimensions or technical characteristics (Rodríguez *et al.* 2009).

The analysis of the distribution of these items, and of the flint itself, across the north-west can give us some ideas about the routes through which they arrived in our territory. This distribution shows the existence of two main areas separated by the *Dorsal Meridiana* (Fig. 11.1), a small mountain range that seems to have played a dividing role between eastern and western throughout history. This division can also be observed in the existence of differences in the megalithic grave goods and art (Criado and Fábregas 1994; Carrera 2011) and also in the open-air rock art (Fábregas *et al.* 2009); differences that seem to have lasted, at least, until the Iron Age (Carballo 2003).

The first of these areas – much more important in terms of the number of flint items documented – runs in parallel to the western coast and, within it, a gradual decrease in the number of flint artefacts can be observed as we advance to the north and inland. The second area is centred in the north-east of Galicia and, although this zone boasts one of the larger concentrations of megalithic mounds in the Galician territory (Criado and Fábregas 1994), the flint artefacts deposited inside the tombs are relatively few in comparison with the western megaliths; this circumstance occurred despite the presence in this area of local sources of cryptocrystalline rocks that were exploited mainly during the Upper Palaeolithic, but also during late prehistory. In the map of distributions, a vacuum of flint accumulations can also be observed in south-western Galicia; nevertheless, this circumstance is probably due more to a scarcity of intensive research in this area than to a real absence of flint artefacts.

Therefore, according to these distributions, we can propose two main gateways for the movement of flint into Galicia: a “Western” and a “Meridional” route. The

first would probably have followed the Cantabrian coast of Galicia and/or some of the mountain passes that exist in the eastern mountain ranges, such as those used by the pilgrims of the Primitive and the French Way to Santiago de Compostela. It can be assumed that this western route would have been the more probable way of entry of raw materials and artefacts coming from the Cantabrian Rim and possibly the Spanish Meseta. The contacts between these areas during the 3rd millennium are well known from the documentation of Galician artefacts in the current territory of Asturias, as happened in the case of the double pick of Marabú (De Blas and Corretgé 2001).

Other evidence is the presence of common elements in rock art, as the *Peña Tú* representations (quadrangular motifs, sometimes accompanied by weapons such as daggers or halberds, probably representing an anthropomorphic entity), which has been engraved in a more natural or schematic way in different points of the north-west (Fig. 11.6) during the second half of the 3rd and the beginning of the 2nd millennium (Fábregas *et al.* 2004). The distribution of these representations could indicate the existence of some kind of “common beliefs” engendered by contacts between these different areas, the origin of which can probably be traced in former millennia.

Regarding the Meridional routes, it seems that the introduction of flint would have mainly taken place along the western coast from the Portuguese territory, advancing across the wide coastal plain and geographical features such as the *Depresión Meridiana* – a fault that crosses from south to north all along the western side of the Galician territory and which has remained a major communication route up to the present day – and the major rivers (Limia, Miño and Ulla), which apparently were important in the distribution of flint to the inlands (Fig. 11.1).

Although we do not have analytical evidence to support it, the flint distribution across Galicia – even taking into account the existence of gaps in research – seems to show that this last area could be the most important route of entrance of this raw material into our territory. Maybe much of this flint had its origin in the production centres documented in the Portuguese Estremadura. It is possible that areas such as the south-western coast or the centre of Portugal, where the blades from Estremadura and from the Andalusia workshops would have arrived (Nocete *et al.* 2005; Morgado *et al.* 2009), might have played an important role as intermediary points from which the more southern items could have been introduced to trade networks which, in turn, allowed their passage to the north-west. The alternative to this possibility would be the existence of direct contacts, more or less sporadic, between the south and Galicia, as seems to be shown by the absence, until now, of blades made from Turón flint in the Portuguese territory.

The western coast of the Iberian Peninsula has traditionally been considered a favourable route through

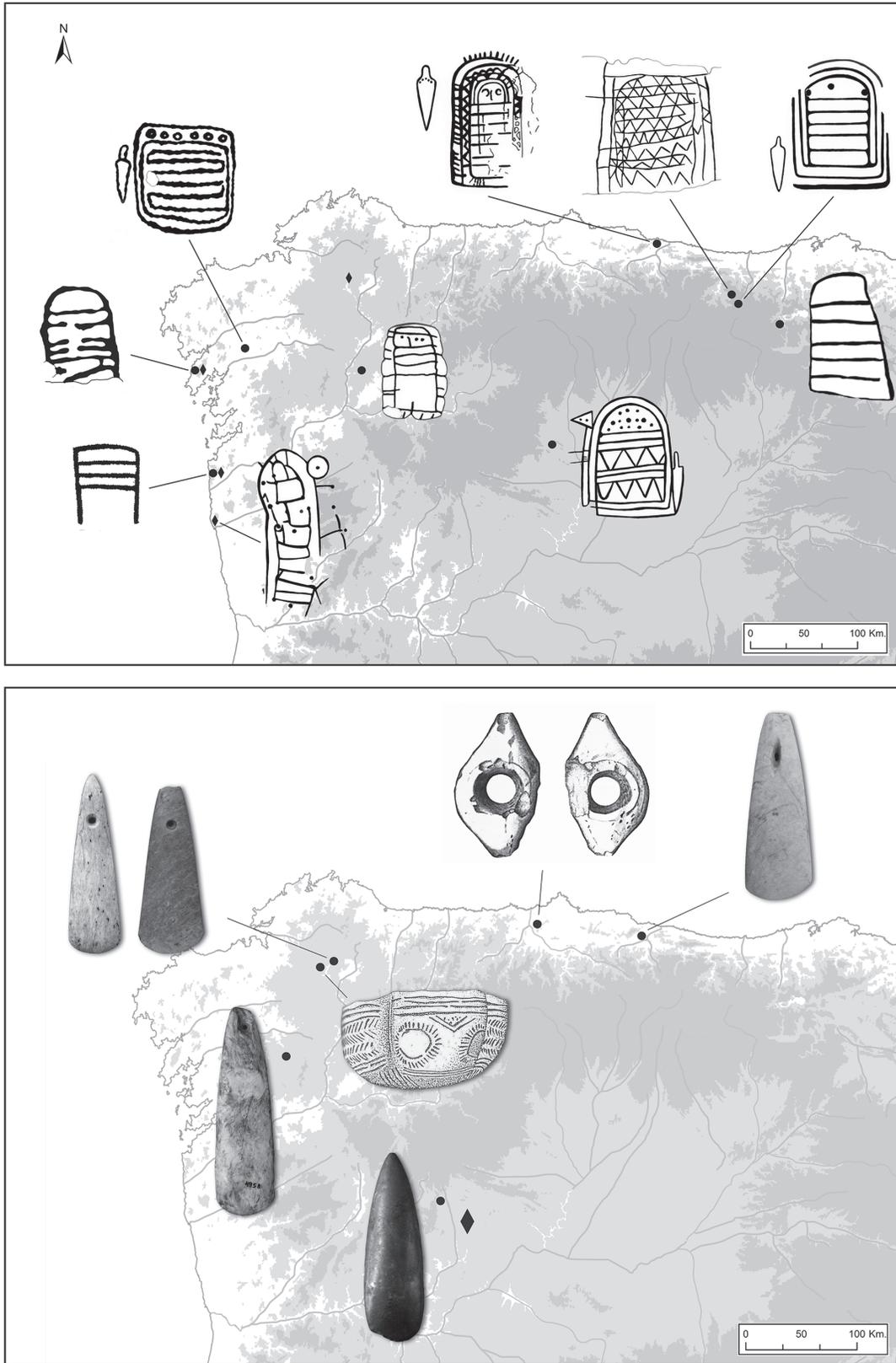


Fig. 11.6. Map of the north-western Iberia showing the distribution of the Peña Tú motifs and of the main objects referred in the text: Tumiác and Cangas perforated axes; Alpine axe of Bragança; double pick of Marabú; Monte Pirleo pot; Palazuelos variscite mines.

which movements of people and objects took place during prehistory. The importance of this area in the spread of farming has been widely discussed, even appealing to the use of the coastal navigation to try to explain the apparently rapid expansion of the Neolithic along several areas of the Iberian Peninsula (Zilhão 2001). Although the details of the introduction of agriculture in the north-west are far from clear, the information we have nowadays shows an apparently early introduction of food-producing economies in the southern Atlantic coast of Galicia, maybe due to better climatic conditions in this area at that time (Fábregas 2010) and to the influxes coming from north Portugal through the coastal way.

Meanwhile, the possible use of coastal navigation along the Atlantic façade of the Iberian Peninsula during late prehistory remains a very controversial issue. In contrast to the difficulty of transit by land across much of the Galician territory, the navigation across the “Rías” – long and narrow inlets – is usually calm because they are sheltered from storms and rough seas. In this sense, the proximity to the coast of many of the Neolithic and Bronze Age sites in this area could have facilitated the interaction between the communities that lived on them. Likewise, crossing the Rías by sea would have saved long detours, so the control of those areas in which the ford was easier would have been important for these communities, as seems to have happened in O Regueiriño and A Fontela sites (Moaña, Pontevedra) (Rodríguez 2010) and maybe in Guidoiro Aroso (Vilanova de Arousa, Pontevedra), a small islet in the middle of the Ría de Arousa where several mounds were built.

This navigation across the Rías, which may have been made using small canoes similar to those of the Iron Age found in the Limia River (Alves and Rieth 2007), is indirectly confirmed by the documentation of rock art in the Ons Island, almost 4 km from the coast of the Ría de Pontevedra. The presence of these engravings proves that the prehistoric communities of Galicia would have practised coastal navigation since, at least, the 3rd millennium BC. Nevertheless, evidence of this kind of navigation is far from sufficient to demonstrate the capabilities required for successful navigation between the south and the north-west of the Iberian Peninsula and also between the latter and other areas of the Atlantic European coast. We must take into account that several authors (Ruiz-Gálvez 1998; Cunliffe 2004) have expressed the difficulties of navigation along this route, mainly to the north, when the prehistoric navigators would have had to travel against the prevailing current and wind. Maybe as a result of these difficulties there is no clear evidence of maritime contacts between the north-west and the south until at least the end of the 2nd millennium BC, when the first evidence of Mediterranean objects are found in Galicia (Ruibal 2004) and we also have the representations of alleged Mediterranean ships on petroglyphs, the engraving of which, nevertheless, has

been moved forward to the beginning of the 2nd millennium (Costas and De la Peña 2011).

Together with this coastal way, other inland routes of entrance into Galicia across the south-east must be considered, through which items from the Spanish Meseta and Portuguese region of *Tras-Os-Montes* could have come into the north-west. Likewise, it is possible that this area might have been the route of entry for southern items, such as the pot found in the Monte Pirleo mound (Guitiriz, Lugo), which could have arrived across the *Vía de la Plata* (Fig. 11.6) a traditional path, the importance of which drastically increased in the next millennia, as demonstrated by the recent discovery of examples of “south-western” *stelae* in the south-east of Galicia and northern Portugal (Alves and Reis 2011). Nevertheless, these south-eastern routes would have played an important role since, at least, the 4th millennium BC, when items from the Spanish Meseta and central Iberia, such as variscite beads from Palazuelos (Zamora) and maybe sillimanite axes or even flint, would probably have arrived in Galicia.

During the 3rd millennium BC, contacts through these southern routes (both coastal and internal) would be more frequent and intense, as suggested by the distribution of objects such as *Penha* pottery. These contacts by land may have been favoured, in subsequent times, by pioneering experiments in horse riding, which seem to be beginning to occur in the transition between the 3rd and 2nd millennia, given the references in Galician rock art (Fábregas *et al.* 2011).

### **The Atlantic connection: sea contacts between Galicia and other parts of the European Atlantic coast**

Given its condition of *Finisterre*, the Galician territory has been considered a significant stage in the routes by sea among different regions of the western Atlantic coast of Europe, such as Brittany. There have been many authors who found characteristics shared by these territories which would only have been possible due to the existence of more or less sporadic contacts. This is the case not only of megalithic art (Cassen and Vaquero 2000), but also of elements of the material culture such as pottery (Suárez 1997; Prieto and Salanova 2009).

The lithic industry, especially polished artefacts such as axes and beads, also suggests a similar connection; since the distribution analysis of alpine axes conducted by P. Petrequin (Petrequin *et al.* 2007; Fábregas *et al.* 2012) shows the presence of some of these artefacts in the north-west of the Iberian Peninsula. This is especially evident in the case of the Tumiác type, polished axes with a proximal perforation, of which not only is there documentation of one example made in jadeite in the Galician territory (Vilapedre,

Lugo) but also it seems that imitations were made locally all over the north-west (Cangas Type) (Fig. 11.6). These coincidences in the axe types from Galicia and Brittany suggest the possible existence of contacts between these two areas since, at least, the 4th millennium, a hypothesis that can be also reinforced by the documentation of variscite beads from Palazuelos in several Breton mounds (Querré *et al.* 2008).

Contacts by sea have been repeatedly mentioned as the method through which the communication between northern Iberia and Brittany would have been made. These have been frequently defined as the result of direct contacts between *Finisterres*, avoiding the dangerous coast of the Bay of Biscay (Cunliffe 2004). Nevertheless, this option would have required deep-sea navigation, without visual contact of the coast, for more than 48 hours (Naveiro 1991). This kind of navigation would have required considerable development in boat construction techniques and a wide knowledge of navigation, meteorology and astronomy (Ruiz-Gálvez 1998). Although these can be defended for the later periods of the 3rd millennium, they are much more difficult to trace in these earlier times. According to these circumstances, the coastal navigation through the Bay of Biscay might be more likely, even taking account the danger of its coast.

The choice of one of these two possible routes – a deep-sea contact between Galicia and Brittany or a coastal navigation along the Bay of Biscay – can have important consequences for our understanding of the archaeology of northern Iberia and about the relations of the different areas which form this territory. Thus, in the frame of a hypothesis that accepts direct contacts between *Finisterres*, the importance of the role played by the north-west increases substantially, since this area would become the gate of entrance and point of departure from all the “Atlantic items” and a hub from which these would be distributed to other parts of the Iberian Peninsula such as the Cantabrian Rim, the Spanish Meseta or the Portuguese territory. In contrast, if we accept the possibility of a coastal navigation in which a journey is divided into many stages, the entire Cantabrian Rim would become a potential entrance and departure point for different items. Unfortunately, we are far from answering these questions, due the present state of our knowledge.

## Conclusions

The evidence of the presence of a flint blade from the south of the Iberian Peninsula in the Galician territory allows us to prove clearly the existence of long-distance contacts between these two areas during late prehistory. In consequence, this circumstance also evidences that the north-west was not isolated from the commercial networks in the 3rd millennium BC, which would probably have had their origin in earlier times. These contacts would

have connected the north-west with other areas within the Peninsula, but probably also beyond it, such as Brittany. Furthermore, the results achieved show the importance of the technical and petrographic analysis of flint as a method to determine the existence of long-distance contacts.

## Bibliography

- Abad Gallego, J. C. (1987) El utillaje de sílex de la bahía de Baiona. *Castrelos: Revista do Museo Municipal “Quiñones de León”* 0, 39–54.
- Alves, F. and Rieth, E. (2007) *As pirogas 4 e 5 do rio Lima*. Trabalhos do CNANS, 21. Lisboa
- Alves, L. B. and Reis, M. (2011) Memoriais de Pedra, símbolos de identidade. Duas novas peças escultóricas de Çervos (Montealegre, Vila Real). *Jornadas Raianas 2009, Actas*, 159–186.
- Bello Diéguez, X. M. (1995) Autoctonismo vs. Relaciones Atlánticas en el megalitismo noroccidental, el caso de los monumentos de Dombate. *Actas del XXII Congreso Nacional de Arqueología: Vigo 1993* 1, 25–30. Vigo, Instituto de Estudios Vigueses.
- Carballo Arceo, L. X. (2003) La dorsal gallega como barrera intracultural durante la Edad del Hierro, mit 4 textabbildungen. *Madriider Mitteilungen* 4, 333–345.
- Carrera Ramírez, F. (2011) *El arte parietal en monumentos megalíticos del Noroeste Peninsular Dimensión del fenómeno y propuestas de conservación*. British Archaeological Report S2190. Oxford, Archaeopress.
- Cassen, S. and Vaquero Lastres, J. (2000) La forme d’une chose. In S. Cassen (ed.) *Éléments d’architecture. Exploration d’un tertre funéraire à Lannec er Gadouer (Erdeven, Morbihan)*, 611–656. Chauvigny, Association des Publications Chauvinoises.
- Costas Goberna, F. J. and De la Peña Santos, A. (2011) *Los barcos de los petroglifos de Oia. Embarcaciones en la Prehistoria Reciente de Galicia*. Vigo, Autoridad Portuaria de Vigo.
- Criado Boado, F. and Fábregas Valcarce, R. (1994) Regional patterning among the megaliths of Galicia (NW Spain). *Oxford Journal of Archaeology* 13(1), 33–47.
- Cunliffe, B. (2004) *Facing the ocean. The Atlantic and its peoples 8000 BC–AD 1500*. Oxford, Oxford University Press.
- De Blas Cortina, M. A. and Corretgé, L. G. (2001) El origen geológico, galaico, del ejemplar de Marabiu (Teverga, Asturias) y consideraciones culturales sobre los útiles-arma, calificados de “hachas nórdicas”, del Noroeste ibérico. *Trabajos de Prehistoria* 58(2), 143–158.
- De la Peña Santos, A. and Rodríguez Casal, A. A. (1976) Estudio de los materiales conservados de tres sepulturas megalíticas (Península de Morrazo, Pontevedra). *Gallaecia* 2, 55–85.
- Fábregas Valcarce, R. (1992) *Megalitismo del Noroeste de la Península Ibérica. Tipología y secuencia de los materiales líticos*. Aula Abierta. Madrid, UNED.
- Fábregas Valcarce, R. (2010) *Os petróglifos e o seu contexto. Un exemplo da Galicia Meridional*. Vigo, Instituto de Estudios Vigueses.
- Fábregas Valcarce, R. and Vilaseco Vázquez, X. I. (2006) En torno al megalitismo gallego. In F. Carrera Ramírez and R. Fábregas

- Valcarce (eds), *Arte Parietal Megalítico en el Noroeste Peninsular. Conocimiento y Conservación*. 11–36. Tórculo, Santiago de Compostela.
- Fábregas Valcarce, R., De la Peña Santos, A. and Rodríguez Rellán, C. (2011) Río de Angueira 2 (Teo, A Coruña). Un conxunto excepcional de escenas de monta. *Gallaecia* 30, 29–51.
- Fábregas Valcarce, R., Guitián Castromil, J., Guitián Rivera, J. and De la Peña Santos, A. (2004) Petroglifo galaico con una representación de tipo Peña Tú. *Zephyrus* 57, 183–193.
- Fábregas Valcarce, R., Rodríguez Rellán, C. and Rodríguez Álvarez, E. (2009) Representacións de armas no interior de Galicia (Comarca de Deza, Pontevedra). Unha reflexión sobre a distribución e cronoloxía destes motivos. *Gallaecia* 28, 49–68.
- Fábregas Valcarce, R., de Lombera Hermida, A., Rodríguez Rellán, C. (2012) Espagne et Portugal: longs ciseaux et haches perforées; leur contexte et distribution. In P. Pétrequin, S. Cassen, M. Errera, L. Klassen and A. Sheridan (eds), *Inégalités sociales et espace européen au Néolithique: la circulation des grandes haches en jades alpins*. Les Cahiers de la MSHE Ledoux. Besançon, Presses Universitaires de Franche-Comté.
- García-Lastra Merino, M. (1984–5) El Yacimiento de Chan de Armada. Resultados de la Excavación Arqueológica en 1983. *Pontevedra Arqueológica*, 2. 41–56.
- González-Ruibal, A. (2004) Facing to seas: Mediterranean and Atlantic contacts in the north-west of Iberia in the first millennium B.C. *Oxford Journal of Archaeology* 23(3), 287–317.
- Morgado Rodríguez, A., Pelegrin, J., Aubry, T. and Lozano Rodríguez, J. A. (2009) La producción especializada de grandes láminas en el Sur y Oeste de la Península Ibérica. In J. F. Gibaja, X. Terradas, A. Palomo and X. Clop (eds), *Les grandes fulles de sílex. Europa al final de la Prehistòria*, 89–97. Monografies del Museu d'Arqueologia de Catalunya 13. Barcelona, Museu d'Arqueologia de Catalunya.
- Naveiro López, J. (1991) *El comercio antiguo en el N.W. Peninsular*. A Coruña, Museo Arqueológico e Histórico.
- Nocete, F., Sáez, R., Nieto, J. M., Cruz-Auñón, R., Cabrero, R., Alex, E. and Bayona, M. (2005) Circulation of silicified oolitic limestone blades in South-Iberian (Spain and Portugal) during the third millennium B.C.: an expression of core/periphery framework. *Journal of Anthropological Archaeology* 24, 62–81.
- Pelegrin, J. and Morgado Rodríguez, A. (2007) Primeras Experimentaciones sobre la Producción Laminar del Neolítico Reciente-Edad del Cobre del Sur de la Península Ibérica. In M. L. Ramos Sáinz, E. González Urquijo and J. Baena Preysler (eds), *Arqueología Experimental en la Península Ibérica: Investigación, Didáctica y Patrimonio*, 131–139. Santander, Asociación Española de Arqueología Experimental.
- Petrequin, P., Cassen, S., Errera, M., Paillet, Y. and Gauthier, E. (2007) La hache polie de Lagor (Pyrénées-Atlantiques): une production du Ve millénaire. *Archéologie des Pyrénées Occidentales et des Landes* 26, 7–20.
- Prieto Martínez, P. and Salanova, L. (2009) Coquilles et Campaniforme en Galice et en Bretagne: mécanismes de circulation et stratégies identitaires. *Bulletin de la Société Préhistorique Française* 106(1), 73–93.
- Querré, G., Herbault, F. and Calligaro, Th. (2008) Transport of Neolithic variscites demonstrated by PIXE Analysis. *X-Ray Spectrometry* 37, 116–120.
- Rodríguez Rellán, C. (2010) *Unha perspectiva tecnolóxica e experimental das industrias sobre lousa, cristal de rocha e cuarzo na Prehistoria Recente do Noroeste Peninsular*. Unpublished thesis, Universidade de Santiago de Compostela.
- Rodríguez Rellán, C., De Lombera Hermida, A. and Fábregas Valcarce, R. (2009) El sílex durante la Prehistoria Reciente del NO de la Península Ibérica. In J. F. Gibaja, X. Terradas, A. Palomo and X. Clop (eds), *Les grandes fulles de sílex. Europa al final de la Prehistòria*, 69–73. Monografies del Museu d'Arqueologia de Catalunya 13. Barcelona, Museu d'Arqueologia de Catalunya.
- Rodríguez-Tovar, F. J., Morgado, A. and Lozano, J. A. (2010) Using ichnofossils to characterize chert tools: a preliminary study from southern Iberia. *Geoarchaeology: an International Journal* 25(4), 514–526.
- Ruiz-Gálvez Priego, M. (1998) *La Europa Atlántica en la Edad del Bronce. Un viaje a las raíces de la Europa Occidental*. Madrid, Crítica.
- Suárez Otero, J. (1997) Del neolítico de A Cunchosa al neolítico de Galicia. Primera aproximación al contexto cultural de la aparición del megalitismo en Galicia. In A. Rodríguez Casal (ed.), *O Neolítico Atlántico e as orixes do megalitismo*, 485–506. Santiago de Compostela.
- Tarriño Vinagre, A. (2006) *El Sílex en la Cuenca Vasco-Cantábrica y Pirineo Navarro. Caracterización y su Aprovechamiento en la Prehistoria*. Madrid, Ministerio de Cultura.
- Zilhão, J. (2001) Radiocarbon evidence for maritime pioneer colonization at the origins of farming in west Mediterranean Europe. *Proceedings of the National Academy of Sciences (USA)* 98 (24), 14180–14185.