

CONTRIBUTION TO THE STUDY OF THE GEOGRAPHICAL DISTRIBUTION OF PYRENEAN FUNERARY STONE CIRCLES (*BARATZE*, *CROMLECH*) IN THE WESTERN PYRENEES

Contribución al estudio de la distribución geográfica de los círculos funerarios de piedra (baratze, crómlech) en los Pirineos occidentales

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ABSTRACT: ‘*Baratze*’ or Pyrenean funerary stone circles, also known as Pyrenean *cromlech*, are funerary cremation monuments constructed between the Late Bronze Age and the beginning of the Roman period. These monuments consist of small circles, which consist of isolated standing stone blocks that enclose a central funerary deposit. The densest geographical distribution of Pyrenean funerary stone circles is located east of the Leizaran river and the lower basin of the Oria river up to approximately Andorra. Pyrenean *cromlechs* are located across mountain chains and occasionally share space with other funerary monuments constructed between the Middle Neolithic period and the Bronze Age –dolmens and cists–, whereas in other locations, *cromlechs* appear to be established in previously unoccupied mountain zones in an approximately continuous fashion by groups of farmers. The discovery of some Pyrenean circles in Ondarre and Beaskin (Sierra de Aralar), away from the nuclear zone and in a space continuously exploited since the Neolithic period, as indicated by the presence of other funerary monuments –dolmens and cists–, generates new questions regarding their distribution and the reasons for distinct densities of these rituals in some areas of the nuclear zone. Therefore, we propose different explanatory hypotheses, adapted to the distinct circumstances, as lithology, history, etc.

Key words: *Cromlech*-stone circle; Aralar; Late Bronze Age; Iron Age; incineration; distribution.

RESUMEN: Los *baratze* o círculos funerarios pirenaicos, también conocidos como *crómlech* pirenaicos, son monumentos funerarios de incineración construidos a partir del Bronce Final hasta inicios de la época romana. Consisten en círculos de reducidas dimensiones conformados por bloques aislados que encierran en su zona central el depósito funerario. Su distribución geográfica más densa se localiza al este de los ríos Leizaran y de la cuenca baja del río Oria hasta aproximadamente Andorra. Se ubican en cordales de montaña en ocasiones compartiendo el mismo espacio que otros monumentos funerarios de inhumación construidos desde el Neolítico Medio a la Edad del Bronce –dólmenes y cistas–, mientras que en otros puntos parece que

se localizan en zonas de montaña no ocupadas con anterioridad de forma más o menos continua por grupos ganaderos. El descubrimiento de los círculos pirenaicos en Ondarre y Beaskin (Sierra de Aralar), fuera de la zona nuclear, y en un espacio recurrentemente explotado desde el Neolítico, como lo atestigua la presencia de monumentos funerarios de inhumación –dólmenes y cistas–, plantea nuevas cuestiones sobre los límites de su distribución, así como sobre las razones de la distinta densidad de las evidencias de dicho ritual en algunas áreas de la zona nuclear. Por ello, se proponen diferentes hipótesis explicativas, adaptadas a las distintas circunstancias, en función de las litologías, historia, etc.

Palabras clave: Crómlech; Aralar; Bronce final; Edad del Hierro; incineración; distribución.

1. Introduction¹

The first references to Pyrenean funerary stone circles date back to 1710, where a circle of stones was cited as a burial place or grave when the border between Baztan and Maia was reviewed, in the area of Luruko Zokoa close to a landmark (Ondarra, 1975). However, it was not until the first decade of the 20th century that an interest in these monuments arose among the pioneers of archaeology. These Pyrenean stone circles, also known as Pyrenean *cromlech*, are known as *baratze* –Mairubaratze, Baratarreta, Jentilbaratza, etc.– in Basque, which is a term associated with megaliths. The first archaeological interventions were conducted at that time: e. g. in 1909, P. M. Soraluze cited the Oianleku, Arritxulangaña, Errenga and Egjar (Oiartzun) complexes; in 1912, Soraluze excavated in Egjar with T. Aranzadi; in 1914, R. Gombault identified and excavated 2 monuments from a *cromlech* complex in Okabe (Lower Navarra). Subsequently, the discovery of this type of structure became common in both sides of the Pyrenees, with notable studies of this phenomenon by Blot, Peñalver and Vegas.

2. Pyrenean Stone Circles (*Baratze*, *Cromlech*): Characteristics and Typology

Cromlechs are circular, small-diameter funerary structures that enclose a deposit of incinerated

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human remains in the centre. *Cromlechs* are constructed from slabs or blocks of stone collected from the surrounding area. The circle of stones can consist of isolated standing stones, which is more common, or a small wall –Meatse E–. The diameter of most *cromlechs* ranges from 4 to 7 m, but some may be as large as 17 –the Jatsagune *Cromlech*–, 21 –Azpegiko Lepoa– or 22 m –Induriaga–. The standing stones also have small dimensions and typically do not rise above the terrain by more than 30-40 cm. Occasionally, one or more standing stones may be more prominent than the rest, reaching over 1 m high –Mulisko Gaina, Eteneta, Ondarre I and III, etc.–, but they do not appear to follow a specific objective, such as their location, orientation, etc., which varies among the monuments.

The human remain deposits typically only consist of small human parts deposited in the centre of the structure and generally belong to adults. In Oianleku, there were approximately 500 bone fragments and 1,500 g with all anatomical parts represented in Millagate IV. However, some *cromlechs* do not contain remains: Mulisko Gaina, Egjar, etc. Occasionally, the remains are deposited directly on the ground –Errozate–, under a pile of blocks –Okabe VI–, in a small cist –Mehatze V–, under a slab, etc. Notably, the circle occasionally encloses a central funerary deposit that is also covered by a burial mound of soil or small rocks, as occurs for the burial mound *cromlechs* of Pittarre, Bixustia, Ondarre I and II, etc. Where the remains at these *cromlechs* were incinerated is unknown, but it did not occur within the structure.

Many *cromlechs* are isolated –337 cases–, followed by complexes of 2 –69–, 3 –43– or up to 26 such as Ilarrita –Okabe–.

Occasionally, in the same area, burial mound structures are documented with identical functions and chronologies but without the stone circle: Zuhamendi III, Apatesaro 4, 5 and 6, Biskarzu and Ahiga.

The remains of the material culture directly associated with funerary deposits are scarce, and it is not always possible to establish a direct relationship with the burial. Consistent with Blot and Peñalver, the following materials have offered the greatest associations: some Iron Age ceramic fragments in the *cromlechs* of Oianleku Ipar, Apatesaro Hego, Bixustia and Accaüs; a ring and bronze button in Oianleku Ipar; an iron spearhead in Errozate and Zaho; and a glass ring fragment in Jatsagune.

Cromlech origins remain unknown. However, because they are located in mountain areas and their architecture –despite the personality and originality

of some monuments– has elements that allude to prior burial architecture –dolmens and cists–, Barandiarán (1950) proposed an evolution: there are dolmens that have an ‘*espil*’ or stone circumference similar to a ‘*baratzak*’ or small Pyrenean stone circles. *Cromlechs* are possible dolmenic survivors in an era when the custom of incinerating bodies was introduced and no megalithic chamber had to be constructed. Thus, with the disappearance of the dolmen, some of its elements, such as the ‘*espil*’ or stone circle, survived.

3. Chronology

Twenty-six funerary monuments have been dated using carbon radiation (Blot and Raballand, 1995; Peñalver, 2005) (Fig. 1). Many are typically

Dolmen/Cist	Labor.	Age BP	Cal BC (%68,2)
El Sotillo	Beta.-299308	2740 ± 30	930/820
El Sotillo	Beta.-299303	3120 ± 30	1440/1370; 1340/1320
El Sotillo	Beta.-299307	3160 ± 30	1500/1400
La Chabola	Beta.-288936	3280 ± 40	1650/1460
Etxegarate 14P-1.2	GrA-24204	2715 ± 45	900/820
Etxegarate 14M-3.8	Ua-37367	3070 ± 30	1395/1310
Urdanarre N. 1	Gif. 9144	2990 ± 50	1312/1146

FIG. 1. Dates of the latest burial phase in distinct dolmens and cists.

dated throughout the first millennium B. C. Those dates, which can be considered too old, might have resulted from dating based on carbon from old trees. In this context, we want to note that there are various dolmens that have dates suggesting recent burials (Fernández Eraso and Mujika, 2013; Mujika, 2007-2009), which nearly coincides with the beginning of most incinerations. All of these dates were obtained using AMS, and specific individuals have been dated in the burial grounds of the El Sotillo and La Chabola de la Hechicera dolmen corridors (Rioja Alavesa) or the simple dolmen of Etxegarate (Gipuzkoa). Urdanarre N. 1 (Lower Navarra) was constructed during the Early Bronze Age (Fig. 2), reused for other burials towards the end of the Bronze Age and similarly reused to deposit

incinerations. The carbon accompanying the incinerated bones was dated to the Middle Ages (520 ± 60 BP) (Blot, 1993).

However, the results that most distort the dating in Fig. 1 are those that indicate the reuse or construction of some of these monuments during the Middle Ages because of the possible survival of these rituals in small, Christianised populations from the Pyrenean region. This hypothesis is consolidated by the typology of some metallic objects observed in some burial mounds –in coarse form without carbon dating–. For example, 2 fragments of crossbow tips, dated between the 10th and 14th centuries AD because of their typology, were excavated in the Sohandi 2 burial mound; a scythe blade with a wide chronology, from the La Tène culture

Site	Labor.	Age BP	Cal BC (%68,2)
Meatse 8	Gif. 9573	2960 ± 50	1185 ± 81
Apatesaro 1	Gif. 5728	2780 ± 90	971 ± 107
Ondarre I-12J-5	Beta.-363982	2740 ± 30	881 ± 32
Ondarre II-21E	Beta.-387839	2800 ± 30	957 ± 35
Apatesaro 5	Gif. 6988	2740 ± 60	906 ± 62
Mehatze 5	Gif. 4470	2730 ± 100	925 ± 100
Millagate 5	Gif. 7559	2730 ± 60	898 ± 59
Meatse 11	Gif. 10284	2705 ± 75	889 ± 66
Mendiluze	CSIC-694	2700 ± 60	872 ± 47
Errozate 2	Gif. 3741	2680 ± 100	848 ± 114
Apatesaro 4	Gif. 6031	2670 ± 90	839 ± 93
Hegieder 7	Gif. 9371	2650±50	839 ± 38
Errozate 4	Gif. 4185	2640 ± 100	758 ± 145
Zaho 2	Gif. 6343	2640 ± 90	762 ± 133
Mulisko Gaina	I-14.100	2630 ± 90	748 ± 137
Bixustia	Gif. 3743	2600 ± 100	707 ± 142
Apatesaro 1 bis	Gif. 5729	2590 ± 90	694 ± 129
Meatse 2	Ly. 881	2380 ± 130	509 ± 194
Okabe 6	Gif. 4186	2370 ± 100	530 ± 162
Errozate 3	Gif. 4184	2330 ± 100	452 ± 184
Pittare	Gif. 4469	2240 ± 90	285 ± 98
Millagate 4	Gif. 7306	2120 ± 60	189 ± 112
Sohandi V	Bx 475 T.L.	800 ± 210	Thermoluminescence
Ahiga	Gif. 5022	1000 ± 80 d.C.	1043 ± 89 Cal AD
Biskarzu	Gif. 4183	1100 ± 90 d.C.	907 ± 98 Cal AD
Sohandi II		s. x-xiv d.C.	Metallic tipology
Urdanarre N. 1	Gif. 9030	520 ± 60	1379 ± 51 Cal AD

FIG. 2. Pyrenean circle (baratze), burial mound cromlechs and incineration burial mound dates from the Western Pyrenees (Source: Blot and Peñalver) calibrated with CalPal_2007_HULU (<http://www.calpal-online.de>).

to the Middle Ages, was excavated in the Sohandi 6 burial mound; and ceramics were excavated from the Sohandi 5 circle. Additionally, in the centre of the Ahiga burial mound, which has a 24 m diameter and no structure whatsoever, a homogenous layer of charcoal was observed that contained a bronze coin, which in the opinion of J. L. Tobie, was an “Antoninianus coarsely imitated, probably from the III century AD”. The coals were dated to the Middle Ages using C14, so the coin perhaps was present because it was still ongoing in the Middle Ages (Blot, 1981).

The question of the survival of this ritual has not been definitively answered. Contamination cannot be excluded in some cases, e.g., by uncontrolled

charcoals that are not directly related to the original use of the monument. If possible, it would be desirable to obtain a direct dating of the incinerated human remains. For many burial mounds, it is difficult to accept their funerary nature due to the absence of charcoals or incinerated bones, and the presence of metallic objects could be attributed to other causes.

4. Cromlech regional distribution, site and geology

In a synthetic study of *cromlechs* (Peñalver, 2005), 1,452 monuments were counted and distributed in the following territories: 35% in Navarre, 15% in Lower Navarre, 20% in Béarn, 12% in Huesca and Gipuzkoa –to the west of the Oria and Leizaran rivers– and 5% in Lapurdi. A few monuments have also

been located in Álava and Biscay, some without excavations and others without remains, which cast numerous doubts regarding their real nature, functionality and chronology (Fig. 3).

For the selected site, it is notable that out of 300 complexes analysed, approximately 35% were located on hills, 24% on small hills, 20% on slope landings, 12% on flatlands, 8% on hillsides and <1% in hollows.

However, geographical distribution has maintained the most interest because this funerary ritual is linked to the Western and Central Pyrenees and does not appear to have extended beyond its closest surroundings. Regarding this information, Peñalver

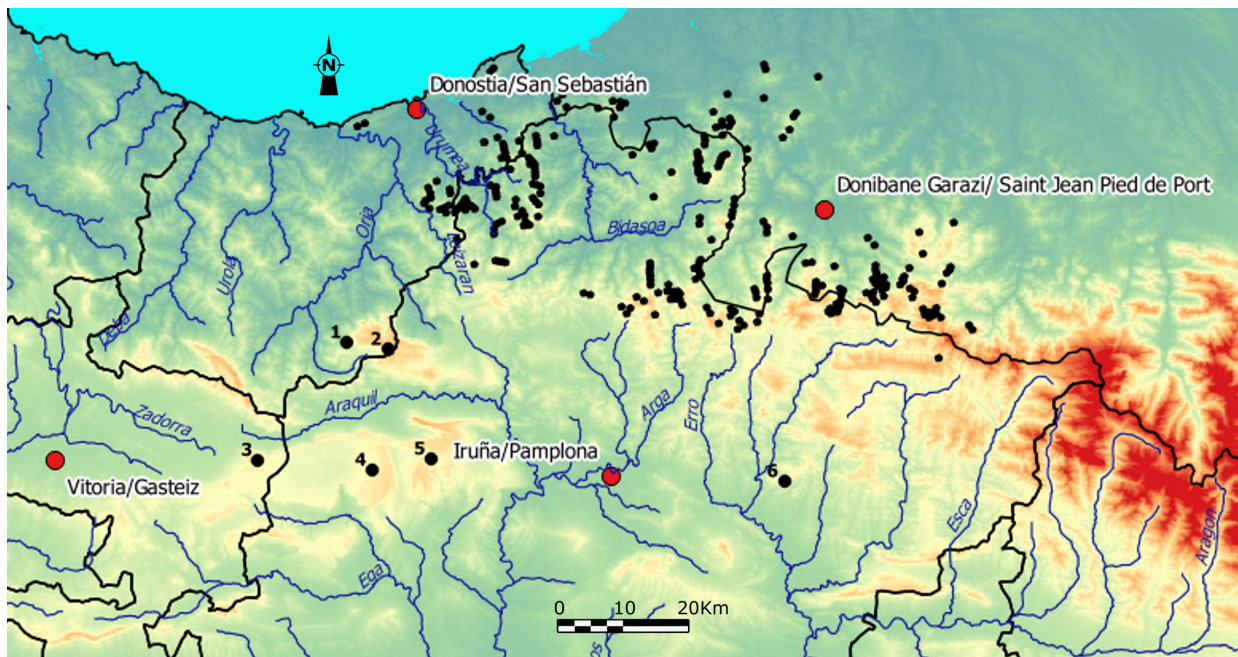


FIG. 3. A general distribution of cromlechs at their western end with the most recent discoveries and the monuments away from the axis of the Pyrenees: 1. Ondarre, 2. Beaskin (Sierra de Aralar), 3. Mendiluze (Sierra de Entzia), 4-5. Sierra de Urbasa-Andia, 6. Induriaga. This information takes as a base the distribution map of all the Pyrenean circles realized by X. Peñalver (2007).

(2008) has identified several notable questions. For example, what type of relations does a population that constructs this type of funerary architecture (*cromlechs*, burial mound *cromlechs* and burial mounds) have with groups where these structures are unknown but cists are known –e.g., Piñuelas/La Hoya, Álava–, burial mounds of different characteristics in El Castillo –Castejón, Navarra–, etc.? Population centres that used *cromlechs* are unknown, but shepherds from known population groups have been excluded (Peñalver and San José, 2011). For researchers, the sudden appearance of *cromlechs* west of the Leizaran and Oría rivers and their uniform generalisation to the east can be related to the border between the Vascones territory and the Varduli in the west.

The unexpected discovery of three funerary stone circles in Ondarre it leads as to pose the following question: could the nearly complete absence of this type of structure west of the Leizaran/Oría border be a result of other causes –conservation difficulties because of lithological factors and their current

identification, population history in each mountain range, etc.– and is our image of cromlech distribution thus slightly distorted, or should it be more nuanced? To approach this matter, we attempted to analyse the following based on complementary factors: 1. Is there a relationship between the type of lithology and number of *cromlechs*? and 2. Is the greater or lesser density of funerary monuments –dolmens and cists–, as an indication of prior occupation of the territory throughout the funerary world, inversely related to the presence of *cromlechs*? Furthermore, we assessed the characteristics of each mountain chain (length, type of relief), the resources available in each chain, the type of spatial distribution of the distinct types of burials and the relationship between them, etc.

In the absence of a systematic study of *cromlech* evidence and based on the data from the literature, we can state that many *cromlechs* are located in schists, slates, sandstone, quartz, etc. Of 1,452 *cromlechs* or burial mound *cromlechs*, only 35 have limestone blocks in their construction, and

9 sites have calcareous sandstone from the coastal mountains.

The Pyrenees is a significant mountain range that extends from the Gulf of Leon to the Bay of Biscay, drawing an arc –E-W– with northern concavity. The western section of this range is the Basque Pyrenees and consists of –similar to the rest of the chain– a Hercynian axis (threshold) –formed by old, rigid and metamorphosed rocks– and Mesozoic-Tertiary cover bed, which comprises the Pre-Pyrenees subunit –SubPyrenees in France–. From the Oria Valley, the axis disappears, and the Pre-Pyrenees stretch into the surrounding area of Bilbao through the Basque Coastal Mountains.

In the study zone, the axis is compartmentalised –has a z form– into 5 massifs that are separated

by Mesozoic-Tertiary outcrops. The Cinco Villas, Ursuia-Baigura or Laburdi, Aldudes-Quinto Real, Mendibeltza and Iguntza massifs stand from west to east. Despite having a similar origin and age, the massifs present lithological differences that can assign them to one of the two following categories:

- a. Oriental dominion: constituted by the Iguntza, Mendibeltza and Aldudes-Quinto Real massifs and by the southern fringe of Ursuia-Baigura. Quartzites, black schists with graptolites, sandstone, dolomites, blue limestone, sandy schists and ferruginous sandstone are the dominant forms, with ages ranging from the Ordovician to the Frasnian (Heddebaud, 1975; Rat and Feuillée, 1971) (Fig. 4).

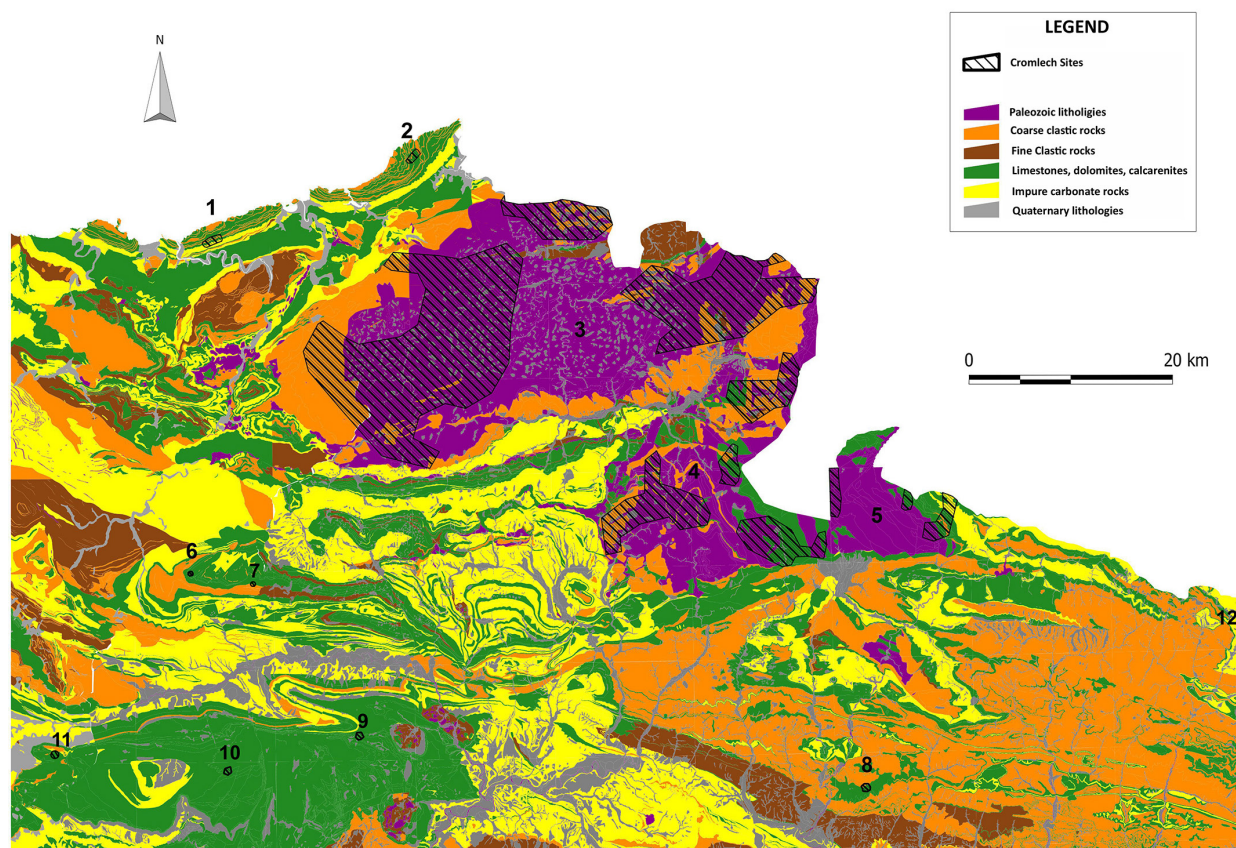


FIG. 4. The distribution of cromlech complexes in the southern Pyrenees: 1) Mendizorrotz; 2) Jaizkibel; 3) Complexes of cromlech in the Cinco Villas massif; 4) Complexes in the Baztan area; 5) Complexes of Urkulu-Irati; 6) Ondarre (Sierra de Aralar); 7) Beaskin (Sierra de Aralar); 8) Induriaga (Aoiz-Longuida); 9-10) Sierra de Andia-Urbusa; 11) Mendiluze (Sierra de Entzia); 12) Belagua.

b. Occidental dominion: consisting of the Cinco Villas and Laburdi massifs. This landscape has an obvious predominance of bluish grey and black schists with possible inter-bedded conglomerates (pudingas) and quartzite, lydite and limestone lenses (Lesaka, Aranaz, Artikutza). The granite stock of Peñas de Aia, which consists of granite, granodiorite, quartzodiorite and diorite, can be observed in the Cinco Villas massif (Campos, 1979) (Fig. 4).

The Mesozoic-Tertiary cover bed presents greater lithological diversity, although the areas closest to the axis have a predominance of limestone, dolomite, marl, marly limestone, sandstone, clay –with and without evaporites–, lutite, conglomerate and turbidite (Fig. 4).

The distribution of megalithic monuments –*cromlechs*– in the Pyrenean landscape is greatly asymmetrical, and many can be observed in the above-mentioned Palaeozoic Hercynian massifs. By contrast, in areas of sedimentary cover, these monuments are scarce, with a few sites in the calcareous sandstone of the coastal mountains of Jaizkibel –5 dolmens and 6 *cromlechs*– and Mendizorrotz –5 dolmens and 3 *cromlechs*–, as well as in the limestone of the Aralar Mountains –more than 50 dolmens and 2 *cromlechs*–, Andia –6 *cromlechs* and 12 dolmens– and Urbasa –1 *cromlech* and 23 dolmens–, in addition to the possible ruined dolmens inventoried as burial mounds in the last two areas (Barrero *et al.*, 2005).

It is notable that there is an absence of these monuments in the port area of Larrau-Belagua-Isaba-Piedra de San Martín-Añelarra-Mesa de los Tres Reyes-Zuriza. Here, there are no Palaeozoic materials, although carbonated sediments –nearly pure limestone, olistostrome and dolomite– occur with turbidite, gyps, marl, clay and sandstone. The hardest lithologies comprise the dominant reliefs, whereas the softest lithologies present the typical shape of valleys, depressions and pails (Fig. 4).

A progressive decrease in the number of *cromlechs* can be observed from the area around Valcarlos towards the east (Fig. 4, between points 5 and 9):

2 dolmens, 3 non-excavated burial mounds and 15 *cromlechs* have been observed in Lauriña-Mendimotz; 7 dolmens, 4 non-excavated burial mounds and 50 *cromlechs* in Urkulu-Irati; 11 dolmens, 3 non-excavated burial mounds and 1 *cromlech* in the Sierra de Abodi; 2 burial mounds in Larrau-Otso-gorrigaña; and 10 dolmens, 4 non-excavated burial mounds whose real nature is unknown and 1 *cromlech* in the Belagua area in the north-eastern extreme (Barrero *et al.*, 2005).

A second empty space –with a smaller extension– can be observed in the Baztan-Lekunberri-Belate area. Here, Permian-Triassic materials can be observed, with Jurassic and Cretaceous sediments. Additionally, limestone and dolomite occupy a significant area, although in this case, the modelled monocline reliefs consisting of sandstone and conglomerates from the end of the Palaeozoic and beginning of the Mesozoic cannot be overlooked (Fig. 4). However, scarce evidence has been observed. The location of the areas' greatest length at lower altitudes could be related to this fact in some manner.

5. The burial-mound *Cromlechs* of Ondarre (Sierra de Aralar)

These funerary monuments are located in the central-western sector of the Sierra de Aralar in a closed depression to the south of a small mountain chain with a general N-S direction (Argarbi-Pikoketa). The Jurassic periclinal closure of the Aralar anticline has a complicated litho-stratigraphic sequence with various types of limestone, marl, calcareous sandstone, siliceous and micro-conglomeratic sandstone, conglomerates and lutite. The depression is partially in-filled (at least 14 m) by fluvial-torrential materials with a predominance of sand, clay and silt, but gravel and small and medium edges can also be observed. Isolated limestone blocks and slope deposits can only be observed at the lateral borders.

This area has provided vestiges of a different typology and chronology –industry from the Palaeolithic

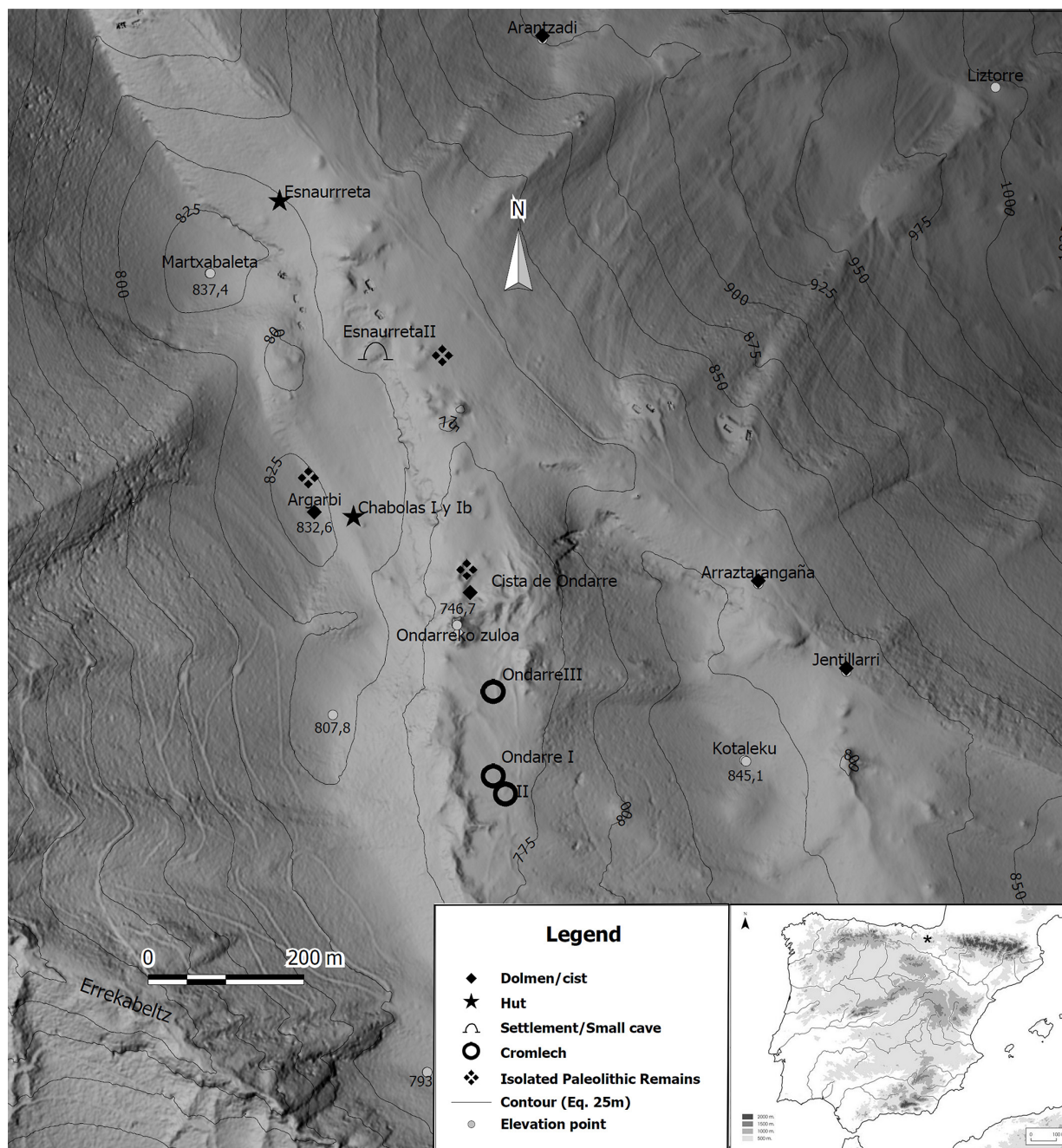


FIG. 5. *The Ondarre area in the Sierra de Aralar: industrial remains from the Middle and Late Palaeolithic, settlements (from the Bronze Age—Esnaurreta—, Roman cabins of Argarbi, medieval cabins in Esnaurreta, etc.) and funerary architecture (dolmen of Argarbi, cists and cromlechs of Ondarre).*

and post-Palaeolithic, settlements and funerary architecture—, which indicate the recurrent and systematic occupation of the same space from the Neolithic period to present day, most likely with the identical

objective during any period, i.e., exploiting the available resources for raising livestock in this region of the Sierra de Aralar (Fig. 5). One reason to construct this architecture, in addition to the funerary one,

could be to help order the management of available resources in the area.

The depression in which the *cromlechs* are located consists of fluvial sediments deposited by the torrential stream or course, which is incorporated at the low point of Ondarre. Isolated blocks of limestone outcrop and slope deposits can only be observed at the lateral edges. In the central area of the depression, the relief is relatively plain with some irregularities –canals, hilly terrain–. Taking advantage of the fact that one of these points was distinct from the rest of the surrounding terrain, a burial-mound *cromlech* was constructed. The cusps of a pair of blocks occur beside the burial

mound *cromlech*, approximately tangential; after careful study, this configuration led us to believe that this monument was a practically complete burial-mound *cromlech* or stone circle that remains covered by sediment.

The burial-mound of Ondarre 1 was approximately 7 m in diameter and 45 cm high. The mound was surrounded by approximately 30 standing stones, of which only 2 were initially visible. All standing stones were made from limestone, except for 3, which were made from highly degraded sandstone and calcarenite. Three standing stones were 1.20 m high, another dozen were 75 cm, but the rest were diminutive because of fragmentation and changes



Fig. 6. *The Ondarre cromlech at the initial excavation.*

caused by crypto-corrosion (Fig. 6) (Edeso *et al.*, 2014; Arévalo *et al.*, 2015).

In the probing conducted in the central area of the burial mound, we observed a wide carbon stain set apart from a small bucket-like depression of approximately 30 cm. The depression contained charred human bones, including fragments of epiphyses, the skull, ribs, etc. The remains corresponded to at least 2 infants, one of whom was older than the other.

To specify the chronology of the remains, a fragment of pericarp hazelnut –*Corylus avellana*– was dated: 2740 ± 30 BC.

During the excavation, no objects were observed in the central area where the funerary deposit was documented, although some loose elements were recovered in the standing stones' sediment from the burial mound circle or periphery. Poverty is a common feature in this type of funerary monument.

On the other hand, the explorations carried out in the burial-mound *cromlech* of Ondarre II and in the *cromlech* of Ondarre III confirmed the high degree of alteration of the limestones covered by the sediment, as well as the disappearance of the majority of the standing stones for reasons, anthropic or natural, that we cannot settle on.

6. Conclusions

The discovery and analysis of the Ondarre and Beaskin stone circles or *cromlechs* –*baratze*– in Sierra de Aralar leads us to propose that the distribution of this funerary incineration ritual is broader than was frequently considered for this time, whose western limit on the Atlantic watershed was located in the Leizaran/Oria rivers. In the Mediterranean chain watershed, 3 non-excavated *cromlech* complexes were observed in the limestone lithology of the Andia-Urba mountain chain, which runs parallel to the Sierra de Aralar. The *cromlech* of Mendiluze (Sierra de Entzia), excavated by J. I. Vegas (1985, 2001 and 2002), which yielded the incinerated remains of one individual is another one and the recent discoveries of the Induriaga

cromlechs (Aoiz-Longuida) are also notably away from the axis of the Pyrenees. The ones known in the surroundings of the Yesa reservoir should be added to this list. Currently, it is impossible to specify the real limits of these complexes because new discoveries will most likely be made due west. Different factors will make it difficult to define the real limits of these complexes, including the following interpretations and compressions of the causes for variable densities of *cromlechs* in various areas of the Western Pyrenees:

1. Conservation problems. *Cromlechs* are simple funerary structures with small dimensions; thus, their disappearance from mountain chains at lower altitudes can be explained by agricultural, livestock breeding and forestry activities developed in historical times.

2. The different typologies of the monuments and the dimensions and formats of available rocks (block, slab) have influenced *cromlech* conservation and current perceptibility to a variable degree. In lithologies that are easier to alter –limestone, calcareous sandstone in Jaizkibel, Igeldo–, the presence of *cromlechs* is minimal –3%–, perhaps because of the identification difficulties encountered by researchers. It is notable that no sites are known in some lithologies, such as basalt and ophite. Lithology could be an important factor in understanding the peculiar distribution of *cromlechs* (Edeso and Mujika, 2011), as was also observed in the case of funerary rituals from the Middle Neolithic Period-Bronze Age from the Gipuzkoa area (Fig. 7).

Other post-construction processes –hidden by sediment, as for Ondarre, reuse, alteration and fragmentation of standing stones and their dispersion– also complicate *cromlech* visibility and recognition, which makes it necessary to intensify prospecting activities in areas without *cromlechs* or with a small number of sites to understand the true cause of their scarcity in these zones.

3. Another notable factor is the specific history or evolution of the population of each mountain

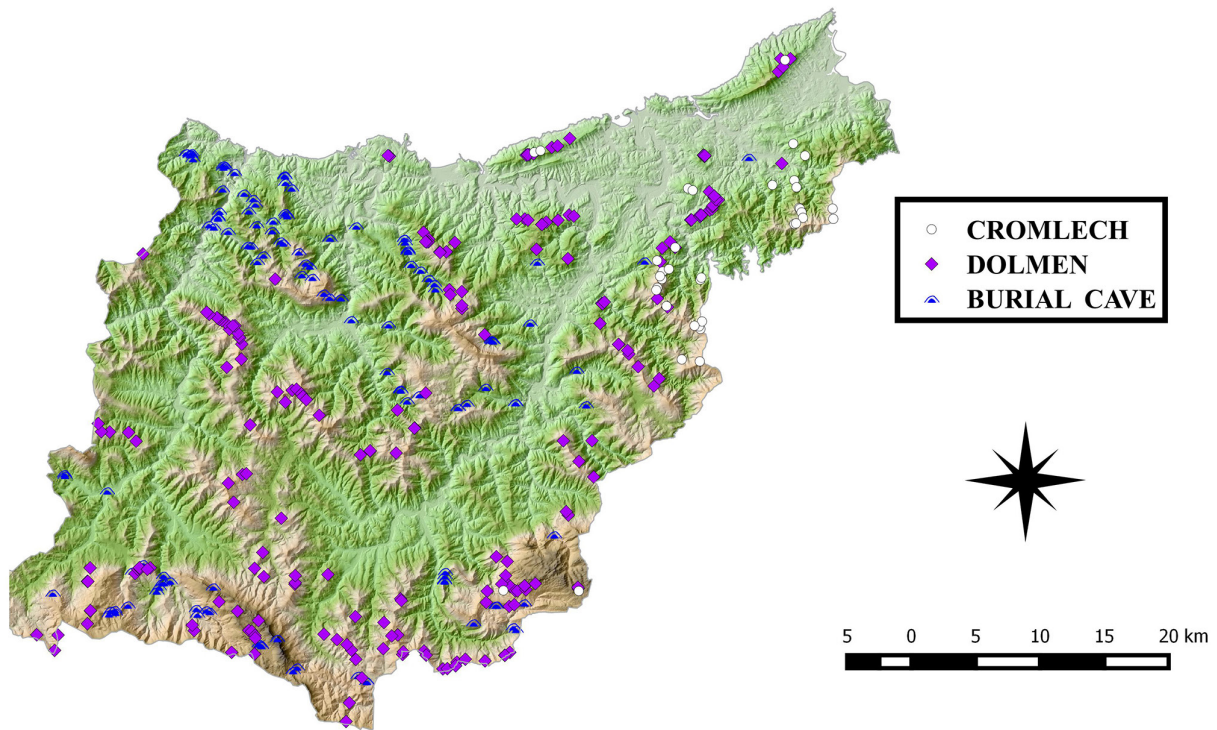


FIG. 7. The distribution of various types of funerary manifestations (burial caves, dolmens and cromlechs) in Gipuzkoa.

chain. A diachronic land occupation appears to have been established, which could have been conditioned by the surface length of the mountain chain and different bioclimatic factors due to unknown historical circumstances and the necessary management of available resources in each chain.

In some of the mountain chains located in the classic *cromlech* area, in which the number of burial funerary monuments –dolmens and cists– was significant, few or zero *cromlechs* were observed. In addition to the above-mentioned cases of Abo-di and Belagua, the Igoin-Akola and Landarbaso (Gipuzkoa) mountain chains with Palaeozoic lithologies had 15 dolmens and no *cromlechs* (Fig. 7). By contrast, for other mountain chains, the abundance of *cromlechs* contrasted with fewer dolmens or cists, as in the case of east Gipuzkoa (Fig. 7) and in borderlands of Navarra –1 dolmen, 5 non-excavated burial mounds and 70 *cromlechs* in Arano-Goizueta and 5 dolmens, 10 non-excavated burial mounds and approximately 150 *cromlechs* in Artikutza– or the previously mentioned cases

–Lauriña-Mendimotz; Urkulu-Irati–, etc. In other areas, the relationship was apparently more balanced, but we must analyse the spatial distribution of *cromlechs* in detail for each of the mountain chains.

This unequal distribution leads us to propose the following questions: does the abundance of *cromlechs* –or the absence of previous funerary monuments– indicate primary colonisation by pastoral nomadic groups of unpopulated or marginal areas beginning in the Late Bronze Age? Or, by contrast, would a predominance of dolmens and cists indicate a more intensive and continuous occupation of the mountain chains between the Middle Neolithic period and the Bronze Age and their scarcity indicate subsequent abandonment or less pressure? However, it is possible that in these mountain chains, the prior funerary monuments continued to conserve their function as territorial markers, and for this reason, could possibly indicate that there was little or no need to construct a *cromlech* or other type of funerary monument visible in the

landscape to claim or manage territory. In these cases, the ritual could possibly be similar but without a complex visible structure.

However, burial and incineration monuments do not have to be rivals. In this context, a similar question was proposed for the relationships between dolmens, dolmens and burial caves and dolmens and cists. Among the latter relationships, we observed the proximities between the monuments –Urrezuloko Armurea and Atxurbi, Jentillarri and Arraztarangaña, etc.–; in some cases, the proximities were nearly in contact –for example, Praalata and Aitxu–, as if the more recent burial were to confirm the importance of the older one, thus establishing continuity between groups of humans. A similar situation appears to have occurred at Azpegi –the Urkulu-Irati area– and in the Mulisko-Gaina complex –Hernani-Urnieta– excavated by Peñalver (1987), in which there was a double cist, which we attributed to the Early Bronze Age because of other regional parallels –Langagorri, Ondarre, Aitxu, Atxurbi, Arraztarangaña etc.–. This cist was surrounded by at least 4 cromlechs, which appeared to validate its role as a territorial marker, or in Urdanarre N. 1 (Blot, 1993), in which the cist contained ceramics with roped decorations attributed to the Early Bronze Age, bone remains from a burial dated to the Late Bronze Age and the remains of at least one incineration.

4. Ondarre’s surroundings are an obvious example of recurrent occupation of the area (Agirre *et al.*, 2010), indicated by the successive and juxtaposed construction of different funerary monuments, which appear to play a role in the management of territory. There are at least 3 types of funerary structures –Argarbi dolmen, and a cist, three cromlech or funerary stone circles in Ondarre– distributed across only 400 m, and in the identical area, other remnants of distinct chronologies have been uncovered –Roman cabins in Argarbi, a Bronze Age settlement and a settlement from the Early Middle Ages in Esnaurreta and other non-probed structures–, which indicate the recurrent exploitation of the area and rearrangement of the space through

the establishment of new landmarks, each of which would play a functional role for the groups occupying the area, the availability of resources, etc.

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