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Mobilités des hommes, des objets et des idées pendant le Paléolithique supérieur européen
Mobility of people, objects and ideas during the European Upper Palaeolithic
Mobilität von Menschen, Objekten und Ideen im europäischen Jungpaläolithikum
Actes de la séance commune de la Société préhistorique française et la
Hugo Obermaier-Gesellschaft à Strasbourg (16 - 17 mai 2019)
Textes publiés sous la direction de
Ludovic MEVEL, Mara-Julia WEBER et Andreas MAIER
Paris, Société préhistorique française, 2021
(Séances de la Société préhistorique française, 17), p. 173-194
www.prehistoire.org
ISSN : 2263-3847 – ISBN : 2-913745-86-5 (en ligne)

Back to the wall: an approach to the reuse of symbolic underground spaces during the Late Upper Palaeolithic on the Bay of Biscay seaboard

Retour aux parois : une approche de la réutilisation d'espaces souterrains symboliques au Paléolithique supérieur tardif sur le versant du golfe de Gascogne

Zurück zur Wand: Eine Annäherung an die wiederholte Nutzung symbolischer unterirdischer Räume während des späten Jungpaläolithikums an der Küste des Golfs von Biskaya

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Abstract: The symbolic use of the underground landscape is one of the most relevant aspects of the behaviour of Upper Palaeolithic societies in Europe. Currently available archaeological data clearly indicate the development of symbolic activities inside the caves from the Aurignacian, with Chauvet as the best example. This symbolic use became generalized until its most widespread levels at the end of the Upper Palaeolithic period, during the Middle Magdalenian. Besides, some of these caves were used during several periods in the Upper Palaeolithic. At the same time, even though the presence of graphic palimpsests was noted from the beginning of research in cave art, the recurrent use of caves for symbolic purposes, basically parietal art, in different periods during the Upper Palaeolithic has received the most interest only after the introduction of ¹⁴C-AMS analyses of charcoal paintings. Thus, until now, the reuse of caves for symbolic purposes, especially rock art, has scarcely been studied. The main goal of the present study is therefore to construct a preliminary overview of the phenomenon in order to establish differences and/or similarities in the reutilisation patterns. The methodology to identify the reuse of caves art in the area of study has been based on the critical re-evaluation of existing information. Previous studies have been partial, mostly because they were restricted to specific geographical areas. In this way, a recurrence has been observed in the use of these symbolic spaces which is especially striking in the central/western Cantabrian region, during the whole period, in a way that is not detected in other regions. This is a very significant observation because it is evidence for a shared form of behaviour regarding graphic codes in human groups that followed one another over time and are archaeologically represented by very different technocomplexes.

Keywords: Cave art, Symbolism, Re-use, Europe, Magdalenian.

Résumé : L'appropriation symbolique des paysages souterrains est l'un des comportements les plus marquants de l'Homo sapiens pendant le Paléolithique supérieur en Europe. L'incursion à l'intérieur des grottes à des fins symboliques semble être liée à de rares actes funéraires des populations néandertaliennes et des certaines activités ponctuelles comme celles documentées dans la grotte de Bruniquel. Les données archéologiques actuellement disponibles indiquent clairement le développement d'activités symboliques à l'intérieur des grottes depuis l'époque aurignacienne, avec la grotte Chauvet comme meilleur exemple. Ce processus se généralisera jusqu'à atteindre son paroxysme vers la fin du Paléolithique supérieur, au cours du Magdalénien moyen. Dans certaines régions, les grottes demeurent la principale source d'information pour appréhender l'organisation des sociétés paléolithiques en raison des problèmes de conservation des habitats de plein air. Elles ont en effet été occupées, voire habitées, et utilisées pour différentes fonctions selon des chronologies plus ou moins longues. D'ailleurs, certaines d'entre elles ont été occupées pendant plusieurs périodes, continues ou non, pendant le Paléolithique supérieur. C'est la raison pour laquelle certains spécialistes ont proposé l'idée que certains de ces sites aient eu le statut de « sites d'agréations », comme l'illustre le cas de la grotte d'Altamira. Cette même idée a également été évoquée sous le nom de « super sites » pour certaines grottes pyrénéennes comme Isturitz ou le Mas d'Azil. Si la présence de palimpseste graphique dans l'art rupestre a été mise en évidence depuis les prémices des recherches dans ces contextes, l'utilisation récurrente de grottes à des fins symboliques et artistique a été véritablement démontrée avec le développement des analyses ¹⁴C-AMS sur les peintures réalisées au fusain. Pourtant, jusqu'à présent, la réappropriation de grottes à des fins symboliques n'a guère été un véritable objet d'étude. Seules les grottes de Cantabrie occidentale et centrale ont été évaluées de manière conjointe dans cette perspective, alors que dans d'autres secteurs elles ont été considérées individuellement. Récemment, à travers nos recherches dans l'est de la Cantabrie et dans les Pyrénées occidentales, nous avons détecté l'existence de trois sites qui présentaient des récurrences graphiques : les sites d'Aitzbitarte IV et d'Aitzbitarte V, étaient des ensembles d'art rupestre inconnus. Erberua était pour sa part déjà connu, mais nos travaux ont permis la réinterprétation de certaines gravures. En raison de ces nouveaux indices et dans le but de parvenir à avoir une vision d'ensemble de ce comportement culturel à la fin du Paléolithique supérieur, nous avons répertorié et caractérisé tous les sites d'art rupestre qui présentait une réutilisation des parois en réalisant une réévaluation critique des informations publiées et la discussion de modèles pour le bassin versant du golfe de Gascogne. L'objectif principal de la présente étude était de proposer un premier aperçu de ces phénomènes et de trouver des différences et/ou des similitudes dans les schémas de réappropriation des parois. Au final, nous avons observé une récurrence de ces espaces symboliques qui est particulièrement frappante dans la région de Cantabrie centrale/occidentale, pendant tout le Paléolithique supérieur. Ces résultats permettent de mettre en évidence un comportement partagé pour des codes graphiques par des groupes humains qui se succèdent dans le temps, en transcendant les technocomplexes auxquelles ils appartiennent. L'enquête actuelle s'est limitée à un sujet principal – la distribution géographique et spatiale – et reste préliminaire en raison de notre objectif principal qui était d'obtenir une vue d'ensemble à l'échelle de l'Europe occidentale. Dans tous les cas, des analyses plus approfondies devront être effectuées pour préciser les interactions entre les différentes phases de décors, pour définir les schémas de construction graphique de l'ensemble et bien sûr, pour expliquer les différences mises en évidence.

Mots-clés : Grotte ornée, Symbolisme, Réutilisation, Europe, Magdalénien.

Zusammenfassung: Die symbolische Nutzung unterirdischer Landschaften ist einer der relevantesten Verhaltensaspekte jungpaläolithischer Gesellschaften in Europa. Die zurzeit verfügbaren archäologischen Daten zeigen deutlich die Entwicklung symbolischer Aktivitäten in Höhlen seit dem Aurignacien, mit der Chauvet-Höhle als bestem Beispiel. Diese Art der symbolischen Nutzung erfuhr immer weitere Verbreitung bis zu ihrem Höhepunkt gegen Ende des Jungpaläolithikums, während des Mittleren Magdalénien. Außerdem wurden einige dieser Höhlen zu mehreren Zeitpunkten während des Jungpaläolithikums genutzt. Wenngleich Palimpseste bei Höhlenkunst von Beginn der Untersuchungen an beschrieben wurden, wuchs das Interesse an der wiederholten Nutzung von Höhlen für symbolische Zwecke, hauptsächlich an Wandkunst, zu verschiedenen jungpaläolithischen Epochen erst nach der Einführung von ¹⁴C-AMS-Analysen an Holzkohle-Zeichnungen. Bislang wurde die Wiederverwendung von Höhlen zu symbolischen Zwecken, insbesondere Felskunst, kaum untersucht. Das Ziel dieser Studie ist es daher, einen vorläufigen Überblick über das Phänomen zu geben, um Unterschiede und/oder Gemeinsamkeiten in den Wiederverwendungsmustern herausstellen zu können. Die Methode zur Erkennung der Wiederverwendung von Höhlenkunst im Untersuchungsgebiet basiert auf der kritischen Neubewertung der vorhandenen Informationen. Bisherige Studien betrachteten meist nur einen spezifischen geographischen Raum und waren daher partieller Natur. Auf diese Weise konnte eine wiederholte Nutzung symbolischer Plätze festgestellt werden, die sich in einer besonders hohen Intensität während des gesamten Untersuchungszeitraumes in der zentralen/westlichen kantabrischen Region abzeichnet, wie sie in keiner anderen Region erkannt wurde. Dies ist eine signifikante Beobachtung, da sie beweist, dass zeitlich aufeinanderfolgende Menschengruppen, die archäologisch durch sehr unterschiedliche Technokomplexe repräsentiert sind, eine geteilte Art des Verhaltens in Bezug auf graphische Kodierung hatten.

Schlüsselwörter: Höhlenkunst, Symbolismus, Wiederholte Nutzung, Europa, Magdalénien.

INTRODUCTION

THE SYMBOLIC appropriation of the subterranean landscape is one of the most significant aspects of *Homo sapiens* behaviour among Upper Palaeolithic societies in Europe. Several authors have claimed that it is one of the distinctive features of ‘modern behaviour’ in those human groups (Mithen, 1996; Mellars, 2004; Zilhão, 2007). In fact, it is considered a milestone for humankind, and a large number of these sites, especially in Spain and France, have been designated World Heritage by UNESCO.

Earlier incursions inside caves for symbolic purposes seem to be represented by a few Neanderthal burials (Pettitt, 2002) and some occasional and indeterminate activities only in Bruniquel Cave (Jaubert et al., 2016).

Recent Uranium-series dating results of calcite crusts in spatial relationship with rock art have been published for the Spanish caves of Ardales, Maltravieso and La Pasiega (Hoffmann et al., 2018a), and these coincide with a Neanderthal occupation of the territory. However, several specialists doubted the results (Pearce and Bonneau, 2018; Aubert et al., 2018a; Slimak et al., 2018; White et al., 2019), which has motivated an interesting discussion (Hoffmann et al., 2018b, 2018c and 2019). In previous chronologies, such other evidence as the ‘votive’ hand-axe from the Sima de los Huesos (Pit of the Bones) at Atapuerca has been proposed for archaic Neanderthals (Arsuaga et al., 2014), although the intentionality of this deposit has not been confirmed yet (Aranburu et al., 2017).

In contrast, currently available archaeological data clearly indicate the development of symbolic activities inside caves from the Upper Palaeolithic Aurignacian onwards (Clottes [ed.], 2001; Pike et al., 2012), even taking into account all the limitations concerning the input of this kind of evidence in the construction of cultural taxonomy (Reynolds and Riede, 2019). This behaviour then became increasingly common until reaching its greatest development – in terms of quantity – at the end of the Upper Palaeolithic, in the Middle Magdalenian (Clottes, 2012a). The cave of Chauvet (Ardèche, France) has contributed to this early art with a dozen of direct and more than a hundred of indirect datings obtained by different methods (Quiles et al., 2016), indicating human activities during the Aurignacian and also the Gravettian. Although some researchers question the validity of the radiometric datings and the claims for a stylistic comparison and evaluation of palaeontological and stratigraphic evidence (Züchner, 1996; Pettitt, 2008; Pettitt et al., 2009; Combier and Jouve, 2014; Pettitt and Bahn, 2015), all doubts have been countered with stylistic comparisons (e.g. Tosello and Fritz, 2005; Sauvet et al., 2008), or by geomorphological insights, because the entrance of Chauvet started collapsing since 29 ka until the total sealing of the cave 21 ka ago (Sadier et al., 2012). There is a similar situation concerning the half-dozen U/Th Aurignacian dates obtained in Castillo, Altamira, and Tito Bustillo (Pike et al., 2012), which were also criticized by some specialists

(Bednarik, 2012; Clottes, 2012b; Pons-Branchu et al., 2014; Sauvet et al., 2017) but defended by the initial researchers (Pike et al., 2017).

In fact, caves are the main source of information for the reconstruction of Palaeolithic societies because of preservation conditions and because they were inhabited and used under different functional aspects (Utrilla, 1994; Olive, 2004). Some of these caves were occupied, continuously or not, during several periods during the Upper Palaeolithic. Consequently, some specialists have proposed the idea of ‘aggregation sites’ for those caves where the archaeological record is extremely rich for one or several periods. First applied to Altamira Cave (Cantabria, Spain; Conkey, 1980 and 1992), the idea has also been posited under the term of ‘super sites’ for some Pyrenean caves, like Isturitz (Pyrénées Atlantiques, France) or Mas d’Azil (Ariège, France; Bahn, 1982). This idea has been developed mostly in the Cantabrian region by analyzing the social geographies of Palaeolithic groups (Moure, 1994; Utrilla, 1994; Utrilla and Martínez-Bea, 2008; De La Rasilla and Duarte, 2018), although a reinterpretation has been proposed for Isturitz (Rivero, 2014).

While the presence of graphic palimpsests in cave art was noted from the beginning of research (e.g. Alcalde del Río et al., 1911), the recurrent use of caves for symbolic purposes, basically parietal art, in different periods throughout the Upper Palaeolithic is an aspect that has been addressed in most detail only after the introduction of ¹⁴C-AMS analyses of charcoal paintings (Valladas et al., 2013). There is a supposed long tradition of decorated caves based on the radiocarbon dates for sites like Cougnac (Lot, France) and Cosquer (Bouches du Rhône, France; Lorblanchet, 1994a; Valladas et al., 2017), the suggested repainting on the same wall at Niaux (Ariège, France; Clottes et al., 1992), or even retouching the same figures at Castillo (Cantabria, Spain; Valladas et al., 2001) again during the Magdalenian. However, the validity of most of these dates was later criticized because of possible contamination processes during sampling and analysis (Sauvet, 2004). On the other hand, the wall-stratigraphic superimpositions of figures in different styles have also been used to demonstrate spatial recurrence of symbolic activities inside the caves. In the Cantabrian region this phenomenon was observed especially in Altamira and Castillo caves from the first moments of research (Alcalde del Río et al., 1911), and the figures were attributed first to the Early Upper Palaeolithic (i.e. Gravettian), to its middle phases (i.e. Solutrean and Lower Magdalenian) and finally to the Middle Magdalenian (Moure, 1994). The same idea has been applied to a large number of caves, including Peña Candamo, Llonín, Tito Bustillo, Pasiega, and La Garma, within a more extended chronology (González-Sainz, 2004). At the same time, a model of human use of the interior of the caves was proposed for the western Cantabrian sites of Llonín, Tito Bustillo, Lloseta, and Buxu (Fortea, 2007). These caves were apparently explored and decorated in all their sectors during the Gravettian, and then the main walls were decorated again in the Magdalenian, superimposing

the ‘new’ figures on the ‘older’ ones, creating a complex palimpsest. This model has also been applied for the central Cantabrian caves of Altamira, Pasiega, Castillo, and La Garma (Corchón et al., 2012). Such recurrent graphic activities have been assessed for just a few caves in the Pyrenees: Trois Frères, and Le Portel (Clottes, 1989; Jaubert, 2008), while this phenomenon seems to be even scarcer in the Dordogne, where it is basically limited to La Mouthe (Breuil, 1952), and Font-de-Gaume (Plassard, 2006). Incursions into the caves for other kinds of symbolic activities, like burials or object deposits (Medina-Alcaide et al., 2018), seem to have been more infrequent and so far no evidence of recurrence has been detected.

More recently, during our research survey in the eastern Cantabrian region and the western Pyrenees, graphic recurrence during the Upper Palaeolithic has been detected at three sites (Garate, 2018). In the cases of Aitzbitarte IV (Garate et al., 2020a) and Aitzbitarte V (Garate et al., 2020b) these are previously unknown rock art ensembles, while in the case of Erberua some of the already known engravings were reinterpreted (Garate et al., 2020c). These results are especially interesting because they connect the Cantabrian and Pyrenean regions, also in view of this specific phenomenon of the reutilization of cave sectors for graphic activities.

Thus, until now, the re-appropriation of caves for symbolic purposes, especially in reference to rock art, has been studied very little. Only the western and central Cantabrian caves have been considered as a whole in this sense, while only individual ones in other regions have been examined. In fact, the reuse of caves with symbolic purposes can be related to the addition of new figures after earlier one(s), on the same or other panels, in a short or long chronological dimension (Lorblanchet, 1994a). In the first case, reuse is very difficult to detect due to the low resolution of the dating methods, only the parietal stratigraphy allows us to assess – indirectly – the time scale. In the second case, the criteria are more numerous, especially ^{14}C and U/Th analysis, parietal stratigraphy and stylistic comparison are to be mentioned.

As a consequence of new evidence and the lack of an overview about this cultural behaviour involving the Middle/Upper Magdalenian reuse of caves decorated in previous phases, all the cave art sites in the Bay of Biscay with recurrent decoration through time have been identified and defined in this study in order to seek different or similar patterns.

MATERIALS AND METHODS

The area of study has been restricted to the Bay of Biscay seaboard, this is to say, to all the river basins that discharge into the Atlantic along the Cantabrian and the Landes coastlines (from the River Nalón in Asturias, northern Spain, to the Loire in Brittany, western France). This is the classical area for Palaeolithic cave art studies, including the regions of the Cantabrian Mountains, the

Pyrenees, the Quercy, the Perigord, the Charente, and the Loire. It is here where the continuous symbolic use of caves during the Upper Palaeolithic was more common, albeit not exclusive, or where it has been especially highlighted by research.

The methodology developed to identify the re-appropriation of cave art in the selected area has been based on the critical re-examination of the existing information. The reappraisal of all the Late Upper Palaeolithic decorated ensembles starting with the literature has enabled a global view for the mentioned area (table 1). Only caves reused during the Middle/Upper Magdalenian, with previous decoration phases dated to the Aurignacian, Gravettian, Solutrean, and/or Lower Magdalenian, were selected. In the case of the Lower Magdalenian, there are some sites where the differentiation between one and another technocomplex is so difficult (e.g. Altamira, Marsoulas, Roc-aux-Sorciers, Cap Blanc, etc.) that they have to be considered with caution. Recurrences between Middle and Upper Magdalenian technocomplexes have been excluded because of the difficulty in detecting differences (Rivero and Sauvet, 2014), likewise recurrences between Early Upper Palaeolithic phases because that is not the objective of the study.

The attribution to different phases referred to in the literature is sometimes not well argued, and such sites have been discarded from our analysis as explained below (e.g., Lascaux, Pech Merle, Covarón, El Bosque, Urdiales, Cullalvera, Lloseta, and Coimbre). In contrast, some cases that have never been cited in this regard before (Bernifal, Combarelles I, Bourgneton, and Erberua) and our new discoveries (Aitzbitarte IV and V) have been included, as mentioned above.

At Lascaux Cave (Dordogne, France) some specialists distinguish several rock art phases, including a final one in the Middle Magdalenian (Leroi-Gourhan, 1965; Lorblanchet, 1994a), based on the presence of claviforms, some frontal-view animals and the multiplication of the legs of some horses. However, all these seem to be compatible with immediately previous decoration phases during the Lower Magdalenian and Badegoulian. Likewise, in the cave of Pech Merle (Quercy, France) three rock art phases were identified originally, including one of the middle Magdalenian (Leroi-Gourhan, 1965), but later this opinion was substituted by a more homogeneous interpretation of the record (Lorblanchet, 2010), discarding any Magdalenian phases. Other sites, like Covarón (Asturias, Spain), display deeply engraved lines at the outside of the cave which are attributed to the Early Upper Palaeolithic, and red signs and black animals in the inner galleries, dated to the Upper Magdalenian. The diachronic interpretation of these two types of figures (Arias and Pérez-Suárez, 1993) may not be totally justified since this same combination appears in other nearby ensembles, like El Bosque, which are considered synchronic (Ruiz-Redondo and Garate, 2015), even though they are located in completely different contexts, with the deep spindle-shaped lines in the outer part of the caves and Middle/Upper Magdalenian figures in the deep sectors.

Cave	Province, Country	Occupation phases	Decoration phases	Recurrent art references
Peña Candamo	Asturias, Spain	Unknown	Aurignacian	Fortea, 2000a; Corchón et al., 2017
			Gravettian	
			Solutrean*	
			Lower Magdalenian	
			Middle Magdalenian	
Tito Bustillo	Asturias, Spain	Middle Magdalenian	Aurignacian	Moure, 1994; Fortea, 2007; De Balbín Behrmann et al., 2016; Pike et al., 2012
		Upper Magdalenian	Gravettian	
			Solutrean*	
			Lower Magdalenian	
			Middle Magdalenian	
Buxu	Asturias, Spain	Solutrean	Gravettian*	Sauvet, 2015; Menéndez (ed.), 2016
		Lower Magdalenian	Solutrean	
			Lower Magdalenian	
			Middle Magdalenian	
Llonín	Asturias, Spain	Gravettian	Gravettian	Fortea et al., 2004
		Solutrean	Solutrean	
		Badegoulian*	Lower Magdalenian	
		Lower Magdalenian	Middle Magdalenian	
		Upper Magdalenian	Upper Magdalenian	
Pindal*	Asturias, Spain	Unknown	Gravettian *	Alcalde del Río et al., 1911; Breuil, 1952; Jordá and Berenguer, 1954; Jordá, 1976; Fortea, 1992 and 2000b; González-Echegaray and González-Sainz, 1994
			Middle Magdalenian	González-Sainz, 2005a
			Upper Magdalenian*	
			Post-Palaeolithic*	
Altamira	Cantabria, Spain	Gravettian	Aurignacian	Breuil and Obermaier, 1935; Pike et al., 2012; De Las Heras et al., 2013
		Solutrean	Gravettian	
		Lower Magdalenian	Solutrean	
			Lower Magdalenian	
			Middle Magdalenian	
Hornos de la Peña	Cantabria, Spain	Aurignacian	Aurignacian*	Alcalde del Río et al., 1911; Rivero and Garate, 2013
		Solutrean	Gravettian	
		Lower Magdalenian	Lower Magdalenian*	
		Middle Magdalenian*	Middle Magdalenian	
			Upper Magdalenian	
Pasiega A/B	Cantabria, Spain	Solutrean*	Gravettian	Breuil et al., 1913; De Balbín Behrmann and González-Sainz, 1993
		Lower Magdalenian*	Solutrean	Garate et al., 2019
		Middle Magdalenian	Lower Magdalenian	
			Middle Magdalenian	
Pasiega C/D	Cantabria, Spain	Unknown	Mousterian*	Breuil et al., 1913;
			Gravettian	Moure and González-Sainz, 2000; González-Sainz, 2005b; Hoffmann et al., 2018a
			Solutrean	
			Middle Magdalenian	
			Upper Magdalenian	
Castillo	Cantabria, Spain	Aurignacian	Aurignacian	Alcalde del Río et al., 1911; Moure and González-Sainz, 2000
		Gravettian	Gravettian	González-Sainz, 2005b; Pike et al., 2012
		Solutrean	Solutrean	
		Badegoulian*	Lower Magdalenian	
		Lower Magdalenian	Middle Magdalenian	
		Upper Magdalenian	Upper Magdalenian	
	Post-Palaeolithic			

Cave	Province, Country	Occupation phases	Decoration phases	Recurrent art references
Gama, La	Cantabria, Spain	Middle Magdalenian	Gravettian	González-Sainz, 2003
			Lower Magdalenian	
			Middle Magdalenian	
Salitre	Cantabria, Spain	Uncertain	Gravettian	Alcalde del Rio et al., 1911; Salazar et al., 2019
			Upper Magdalenian	
Aitzbitarte IV*	Basque Country, Spain	Aurignacian	Gravettian*	Garate et al., 2020a
		Solutrean	Middle Magdalenian	
		Badegoulian*		
		Upper Magdalenian		
Aitzbitarte V	Basque Country, Spain	Unknown	Gravettian	Garate et al., 2020c
			Middle Magdalenian	
Erberua	Pyrénées Atlantiques, France	Unknown	Gravettian	Garate et al., 2020b
			Middle Magdalenian	
			Upper Magdalenian*	
Gargas Supérieur	Hautes Pyrénées, France	Unknown	Gravettian	Tosello et al., 2005
			Middle Magdalenian	
Tibirán	Hautes Pyrénées, France	Unknown	Gravettian	Leroi-Gourhan, 1965
			Middle Magdalenian	
Mas d'Azil, Le*	Ariège, France	Aurignacian	Gravettian*	Le Guillou, 2017
		Gravettian	Middle Magdalenian	
		Solutrean	Upper Magdalenian*	
		Badegoulian*		
		Lower Magdalenian		
		Middle Magdalenian		
Trois Frères, Les	Ariège, France	Unknown	Gravettian	Bégouën and Breuil, 1958; Jaubert, 2008
			Lower Magdalenian	
			Middle Magdalenian	
			(Enlène)	
Portel, Le	Ariège, France	Unknown	Gravettian	Jaubert, 2008
			Middle Magdalenian	
			Upper Magdalenian	
Pergouset	Lot, France	Aurignacian	Gravettian*	Garate et al., 2020b
			Upper Magdalenian	
Bourgneton*	Lot, France	Unknown	Gravettian*	Lorblanchet, 1971
			Middle Magdalenian	
Mouthe, La	Dordogne, France	Aurignacian	Gravettian	Breuil, 1952
		Solutrean	Solutrean	
		Magdalenian	Middle Magdalenian	
Font-de-Gaume	Dordogne, France	Aurignacian	Gravettian*	Capitan et al., 1924; Plassard, 2006
		Solutrean	Solutrean*	
		Magdalenian	Lower Magdalenian	
			Middle Magdalenian	
Combarelles I*	Dordogne, France	Middle Magdalenian	Aurignacian*	Capitan et al., 1924
		Upper Magdalenian	Lower Magdalenian*	
			Middle Magdalenian	
			Upper Magdalenian	
Bernifal*	Dordogne, France	Upper Magdalenian*	Middle Magdalenian	Plassard, 2006
			Upper Magdalenian*	
Margot	Mayenne, France	Unknown	Gravettian	Pigeaud et al., 2006
			Middle Magdalenian	

Table 1 – Decorated caves with graphical recurrence during the Upper Palaeolithic in the Bay of Biscay (* see discussion of attribution).

Tableau 1 – Grottes ornées avec une récurrence graphique au Paléolithique supérieur dans le golfe de Gascogne (* pour les attributions discutées).

Tabelle 1 – Bilderhöhlen mit wiederholt auftretender graphischer Nutzung während des Jungpaläolithikums im Golf von Biskaya (*siehe Diskussion der chronologischen Zuschreibung).

In the caves of Urdiales and Cullalvera (Cantabria, Spain) the situation is very similar; at first, several phases of decoration across the Upper Palaeolithic were described, motivated by the presence of red animal figures near the current entrances (Montes et al., 2005; Díaz Casado and Astorqui, 2012), but subsequent studies argue for a more synchronic interpretation (Ruiz-Redondo, 2014) dated to the Middle/Upper Magdalenian. In Lloseta (Asturias, Spain), where an important pre-Magdalenian rock art ensemble is known, some diffuse remains of three doubtful black animals have been assigned to the Magdalenian (De Balbín Behrmann et al., 2005). However, it is difficult to assess this attribution because of their bad preservation. Finally, in the case of Coimbre, at least two decoration phases have been proposed, one of them previous to the Middle Magdalenian because of the presence of different engraving techniques (García-Díez et al., 2017). It is difficult to confirm this appreciation, because the stylistic conventions in all the figures can be attributed to the Magdalenian, despite the different techniques used.

No diachronicity in the decoration phases has ever been clearly identified at Bernifal and Combarelles I. In the former case, motivated by the presence of the hand negatives, a decorative phase previous to the Middle Magdalenian has been discussed (Plassard, 2005), but this idea was discarded later because of a supposed relation between the handprints and a Magdalenian sketch of a mammoth. In the latter cave, the first research attributed a first decoration phase consisting of undefined black paintings to the Aurignacian (Capitan et al., 1924), but this appreciation does not appear in later studies (Leroi-Gourhan, 1965; Barrière, 1997). In both cases, there are hand stencils (at least two in Bernifal and one in Combarelles I). The same situation is detected in the case of Bourgneton (Lorblanchet, 1971), with a reindeer stylistically attributed without any doubt to the middle Magdalenian, as in the case of St. Eulalie (Lorblanchet, 2010), and a red handprint on another wall. The antiquity of this second depiction has been discussed, and it has been varyingly considered from being a fake to a possible pre-Magdalenian representation (Lorblanchet, 1971). In absence of more consistent arguments (like morphotypes of previous chronologies in animal figures, or parietal strata), the presence of hand stencils or prints, usually attributed to early phases of the Upper Palaeolithic (Jaubert, 2008; Feruglio et al., 2011; Floss and Ostheider, 2013) – or even the earliest (Pettitt et al., 2015; García-Díez et al., 2015) –, should be taken with caution in these cases, because Magdalenian artists are potential authors of them, as at Bedeilhac, where two hand prints are attributed to the Magdalenian (Sauvet, 2007). In any case, in Bernifal there may be some other archaic figures, like the horses No. 54 and No. 76 in the inventory of Plassard (2005), or the black disc cloud (close to the hand stencils and in the same colour), usually attributed to early Upper Palaeolithic phases, as in Combe-Negre (Feruglio et al., 2007),

or Pech-Merle, Les Fieux, Cougnac, Les Merveilles, Rocaudour, le Moulin de Laguenay, and le Travers de Janoye (Lorblanchet, 2010). Also, the ‘relationship’ of the hand stencils with the Magdalenian mammoth, proposed by F. Plassard (2005), should be revised to verify if there is any kind of superposition.

A critical evaluation of the existing literature about the selected sites requires a classification of the different chronological data available. This information can be related to ^{14}C -AMS direct dating results of the black paintings (Peña Candamo, Tito Bustillo, Buxu, Llonín, Pindal, Altamira, Pasiiega C/D, Castillo, La Garma, Le Portel), to U/Th indirect dating of calcite crust (Castillo, Tito Bustillo, Altamira, Pasiiega C), to parietal stratigraphy between figures in different styles (Peña Candamo, Tito Bustillo, Llonín, Altamira, Pasiiega A-B, Pasiiega C/D, Castillo), or to stylistic features (all sites).

Concerning the caves retained for this study of repeatedly used sites on the Bay of Biscay seaboard, it is necessary to differentiate the reliability of the chronological information. Some sites provide meaningful chronological data (^{14}C , U/Th, parietal stratigraphy, and stylistic comparison) to support the idea of different phases of decoration. This is the case for Peña Candamo, Tito Bustillo, Llonín, Altamira, Castillo, and Pasiiega C/D, where all the types of chronological data are available. On other occasions, stylistic analyses provide sufficient arguments to propose diachronic symbolic activities inside caves like El Buxu, Hornos de la Peña, Pasiiega A/B, Salitre, Aitzbitarte V, Erberua, Gargas Supérieur, Tibiran, Les Trois Frères, Le Portel, and La Mouthe. Finally, there is another group of caves where, although a diachronic interpretation seems reliable, the stylistic resolution is not precise enough to affirm it without any kind of doubt, e.g. at El Pindal, Font de Gaume, Combarelles I, Bernifal, and especially Aitzbitarte IV, Le Mas d’Azil, Pergouset, and Bourgneton.

The final total of 27 caves (6 of them doubtful) are distributed in different regions around the Bay of Biscay. The reutilisation of these caves as symbolic spaces may have been quantitatively and qualitatively different in each region. In order to examine this aspect in greater depth below, the phenomena will be compared in terms of their spatial distribution, insertion in previously decorated caves, and magnitude compared to the rest of Later Upper Palaeolithic cave art.

RESULTS

The area of the rivers that flow into the Bay of Biscay constitute a very wide geographical space which encompasses very diverse landscapes. In relation to these and the distribution of Palaeolithic parietal art, five areas have been differentiated that correspond, to a large extent, with those contemplated in historiography since the beginning of research (fig. 1).

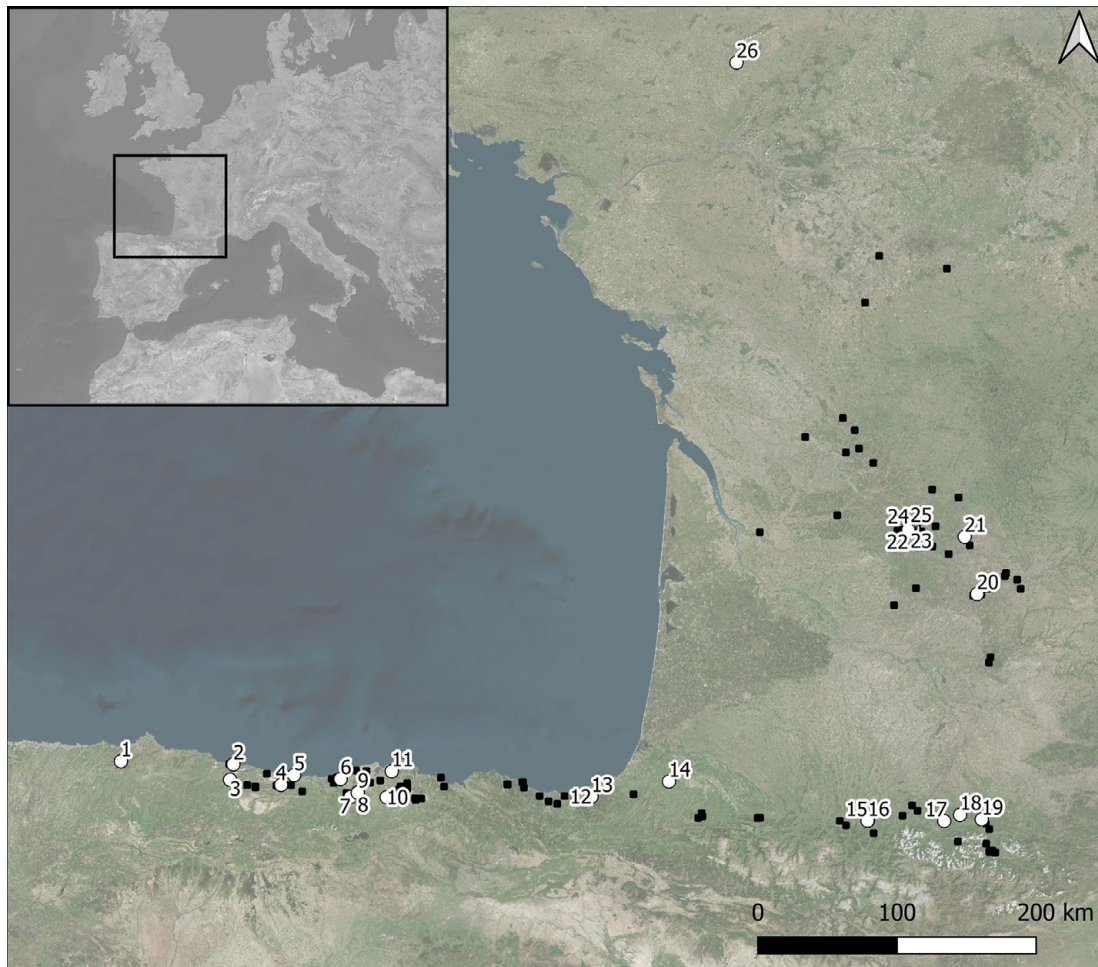


Fig. 1 – Location of cave art sites with Middle/Upper Magdalenian (black) and also previous decorative phases (white) in the Bay of Biscay watershed: 1) Candamo; 2) Tito Bustillo; 3) El Buxu; 4) Llonín; 5) El Pindal; 6) Altamira; 7) Hornos de la Peña; 8) La Pasiega; 9) El Castillo; 10) El Salitre; 11) La Garma; 12) Aitzbitarte IV; 13) Aitzbitarte V; 14) Erberua; 15) Gargas Supérieur; 16) Tibiran; 17) Trois Frères; 18) Mas d’Azil; 19) Le Portel; 20) Pergouset; 21) Bourgneton; 22) La Mouthe; 23) Bernifal; 24) Font-de-Gaume; 25) Les Combarelles; 26) Margot.

Fig. 1 – Localisation des sites d’art rupestre avec phases du Magdalénien moyen / supérieur (noir) et aussi avec des phases antérieures (blanc) dans le bassin versant du golfe de Gascogne : 1) Candamo ; 2) Tito Bustillo ; 3) El Buxu ; 4) Llonín ; 5) El Pindal ; 6) Altamira ; 7) Hornos de la Peña ; 8) La Pasiega ; 9) El Castillo ; 10) El Salitre ; 11) La Garma ; 12) Aitzbitarte IV ; 13) Aitzbitarte V ; 14) Erberua ; 15) Gargas Supérieur ; 16) Tibiran ; 17) Trois Frères ; 18) Mas d’Azil ; 19) Le Portel ; 20) Pergouset ; 21) Bourgneton ; 22) La Mouthe ; 23) Bernifal ; 24) Font-de-Gaume ; 25) Les Combarelles ; 26) Margot.

Abb. 1 – Lage der Höhlenkunst-Fundstellen des Mittleren/Späten Magdalénien (schwarz) und vorheriger künstlerischer Phasen (weiß) an der Küste des Golfs von Biskaya: 1) Candamo; 2) Tito Bustillo; 3) El Buxu; 4) Llonín; 5) El Pindal; 6) Altamira; 7) Hornos de la Peña; 8) La Pasiega; 9) El Castillo; 10) El Salitre; 11) La Garma; 12) Aitzbitarte IV; 13) Aitzbitarte V; 14) Erberua; 15) Gargas Supérieur; 16) Tibiran; 17) Trois Frères; 18) Mas d’Azil; 19) Le Portel; 20) Pergouset; 21) Bourgneton; 22) La Mouthe; 23) Bernifal; 24) Font-de-Gaume; 25) Les Combarelles; 26) Margot.

Cantabrian region

The Cantabrian coast represents the area with the highest density of caves decorated during the Upper Palaeolithic in Europe. For the Middle/Upper Magdalenian a total of 40 caves have been counted, and 14 of these also display previous phases of decoration (one cave doubtful), while there are c. 130 sites with decoration from previous phases only. That is, fewer than two-thirds of the caves were decorated ex novo in the region during the Magdalenian. In fact, for the Late Upper Palaeolithic, there is a very marked polarization

between the central/western and eastern cave art ensembles, with the two sectors separated by a ‘cave art void’ of 200 kilometres, between the Asón and Oka basins. In the first sector, between the rivers Nalón and Asón, the percentage of reused caves rises to 41%. This concentration coincides with the distribution of the striated hinds of the Cantabrian lower Magdalenian (Rivero et al., 2019). For the second sector, we can only certify the symbolic reuse of the underground space in the case of Aitzbitarte V, and perhaps also Aitzbitarte IV, while the remaining nine cases can just be attributed to later phases of the Magdalenian.

At the same time, these caves were reutilised in different ways as regards the distribution of the recent cave art phases (figs. 2 and 3). For example, there is a group of caves in the central/western sector (Peña Candamo, Llonín, Tito Bustillo, Altamira, and El Castillo) where the previous cave art phases are distributed through most of the topographical units in the caves, but the same caves also possess a main panel each with an accumulation of tens of figures, where several phases are represented one on top of the other, including Middle/Upper Magdalenian art. It is here where the reutilisation concept makes perfect sense. Other minor

sectors were also decorated in this period, but not in the same density as in the previous periods. In some other cases (Pasiega A/B, Pasiega C/D, La Garma, El Buxu, Hornos de la Peña) there is also a superimposition of phases in the same panels in several sectors of the caves, but without there being a main panel as in the previously mentioned group of caves. A third type of distribution (Salitre, Aitzbitarte IV, Aitzbitarte V) is characterized by the lack of parietal stratigraphy of the different phases. This is to say, the Magdalenian cave art is located in parts of the cave that were not selected by the artists who decorated it in previous phases.

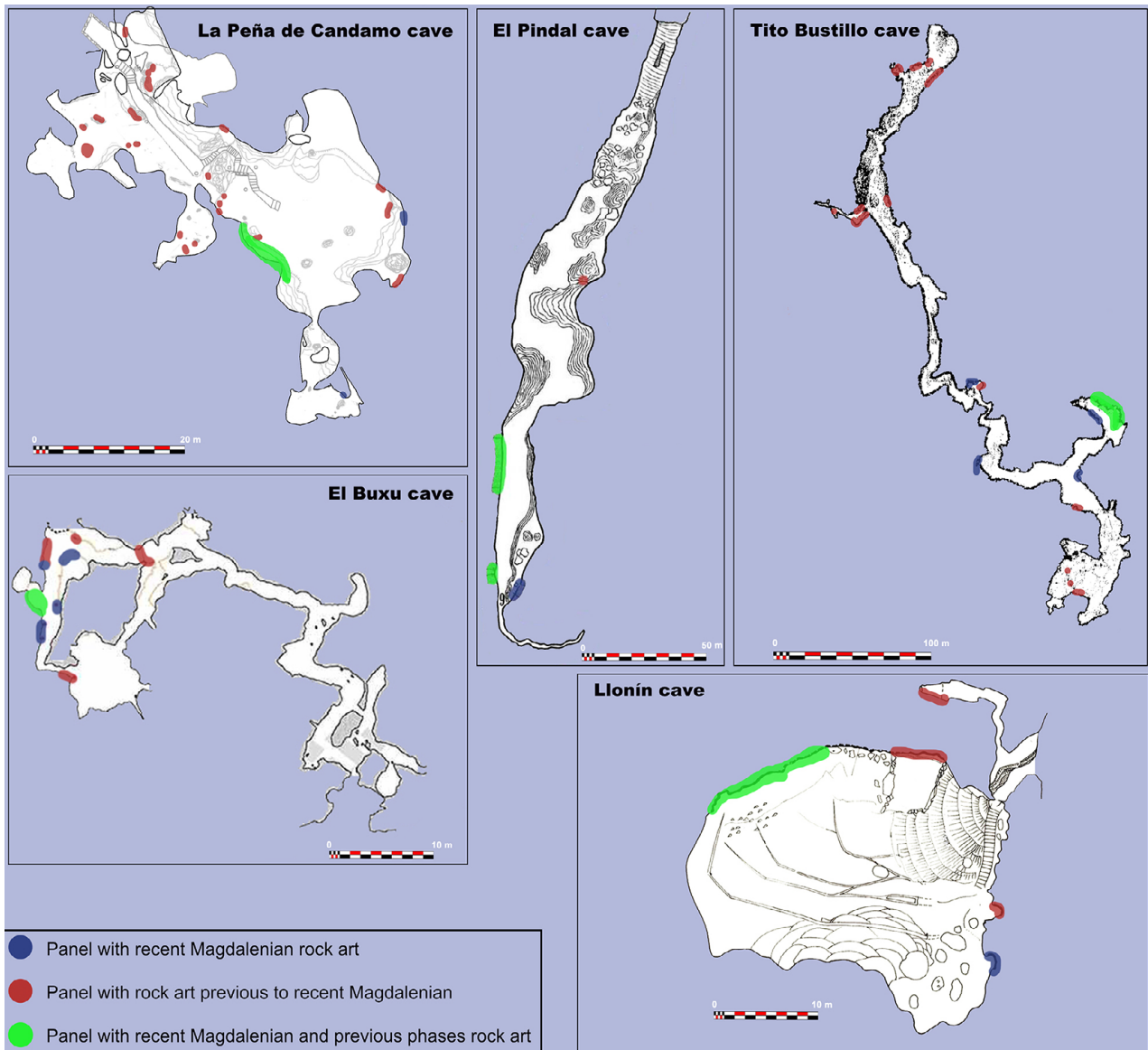


Fig. 2 – Topographic plans of caves in the western Cantabrian Region, where deep zones were reused for decoration with rock art during the Middle/Upper Magdalenian: Peña Candamo (Corchón et al., 2012); El Pindal (Alcalde del Río et al., 1911); El Buxu (Menéndez [ed.], 2016); Tito Bustillo (De Balbín Behrmann et al., 2002); Llonín (Berenguer, 1994).

Fig. 2 – Plans des grottes de l'ouest de la Cantabrie, avec réutilisation des zones profondes identifiées pour le Magdalénien moyen / supérieur : Peña Candamo (Corchón et al., 2012) ; El Pindal (Alcalde del Río et al., 1911) ; El Buxu (Menéndez, 2016) ; Tito Bustillo (De Balbín Behrmann et al., 2002) ; Llonín (Berenguer, 1994).

Abb. 2 – Topographische Pläne der Höhlen in der westlichen kantabrischen Region, in denen Bereiche tief im Inneren zur Dekoration mit Felskunst während des Späten Magdalénien wiederholt genutzt wurden: Peña Candamo (Corchón et al., 2012); El Pindal (Alcalde del Río et al., 1911); El Buxu (Menéndez, 2016); Tito Bustillo (De Balbín Behrmann et al., 2002); Llonín (Berenguer, 1994).

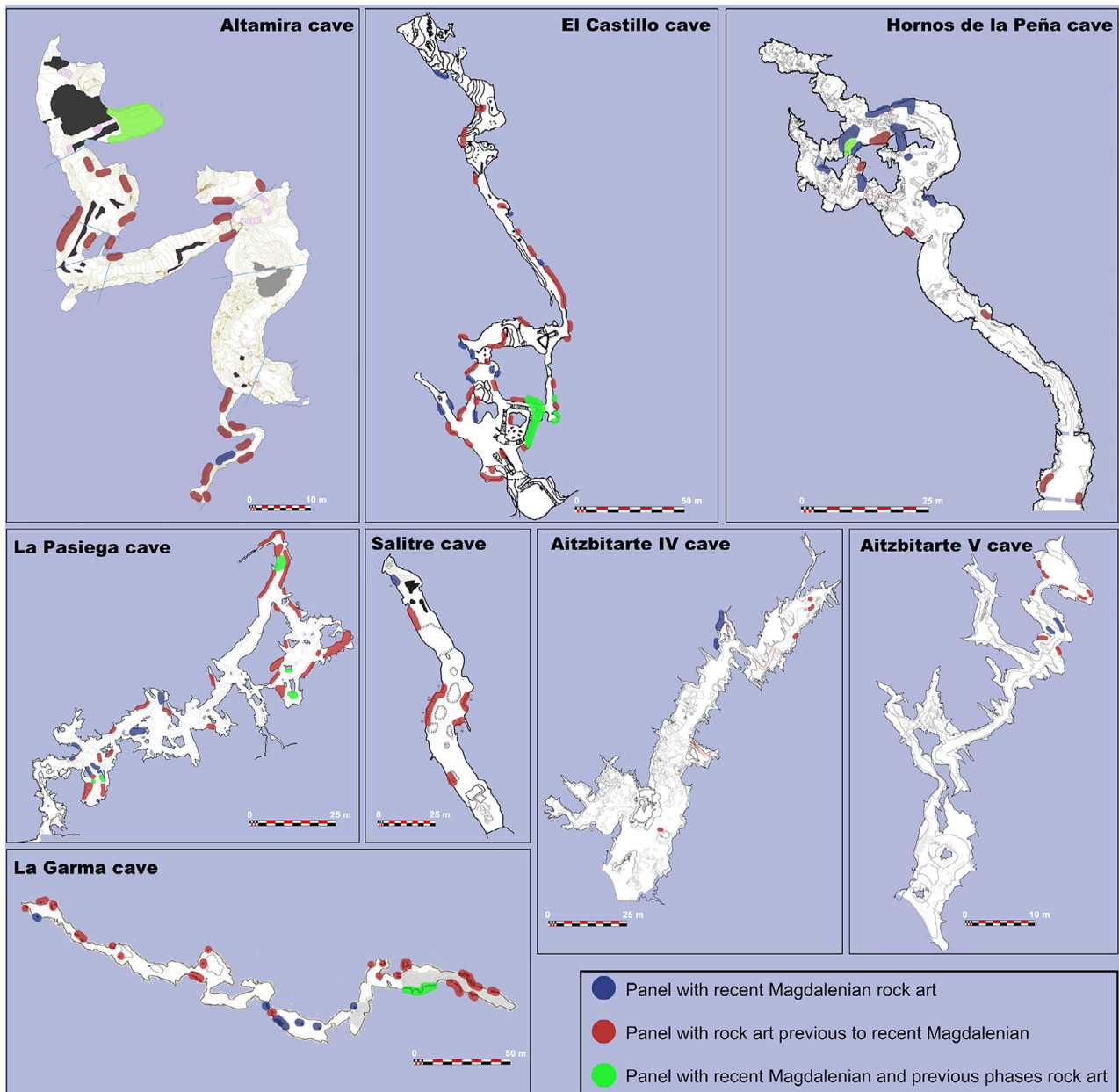


Fig. 3 – Topographic plans of caves in the central/east Cantabrian Region, where deep zones were reused for decoration with rock art during the Middle/Upper Magdalenian: Altamira (Museo Nacional y Centro de Investigación de Altamira); El Castillo (Groenen et al., 2012); Hornos de la Peña, La Pasiega (Consejería de Educación, Cultura y Deporte, Gob. de Cantabria); El Salitre (Salazar et al., 2019); La Garma (González Sainz, 2003); Aitzbitarte IV and V (Garate et al., 2020a and 2020c).

Fig. 3 – Plans des grottes du centre et de l'est de la Cantabrie avec réutilisation des zones profondes identifiées pour le Magdalénien moyen / supérieur : Altamira (Museo Nacional y Centro de Investigación de Altamira) ; El Castillo (Groenen et al., 2012) ; Hornos de la Peña, La Pasiega (Consejería de Educación, Cultura y Deporte, Gob. de Cantabria) ; El Salitre (Salazar et al., 2019) ; La Garma (González Sainz, 2003) ; Aitzbitarte IV et V (Garate et al., 2020a et 2020c).

Abb. 3 – Topographische Pläne der Höhlen in der zentralen/östlichen kantabrischen Region, in denen Bereiche tief im Inneren für Felskunst während des Späten Magdalénien wiederholt genutzt wurden: Altamira (Museo Nacional y Centro de Investigación de Altamira); El Castillo (Groenen et al., 2012); Hornos de la Peña, La Pasiega (Consejería de Educación, Cultura y Deporte, Gob. de Cantabria); El Salitre (Salazar et al., 2019); La Garma (González Sainz, 2003); Aitzbitarte IV and V (Garate et al., 2020a and 2020c).

The case of Pindal is more complicated. Since its discovery, the decorative ensemble in the cave has been assumed to be diachronic by most authors (Alcalde del Río et al., 1911; Breuil, 1952; Jordá and Berenguer, 1954; Jordá, 1976; Fortea, 1992 and 2000b; González-Echegaray and González-Sainz, 1994; González-Sainz, 2005a) because

of the presence of different topics, including mammoths, and stylistic features (different colours, different types of traces, techniques, etc.). But it has also been considered synchronic by a few other researchers (Leroi-Gourhan, 1965; Pumarejo, 1989; De Balbín Behrmann et al., 1999) because of the topographic structure of the ensemble,

which is typical of French recent Magdalenian sites. In our opinion, both possibilities are well argued. Some animals may display some stylistic features of archaic phases, e.g., the mammoths with a single leg per pair and an arched belly; or horses with a double mane, typical of the Solutrean and older phases, but also of the upper Magdalenian (Sauvet and Rivero, 2016). However, contrary to other reutilisations in the Cantabrian region (e.g. Peña Candamo, Altamira, Llonín, etc.), where all the phases are represented in the same place, creating large palimpsests, in Pindal all the figures are distributed more neatly, each in their own panels. These assessments have been made before (González-Pumariega, 2011). It should also be noted that red paintings (generally assumed to belong to earlier phases) are superimposed on recent Magdalenian engravings, but that there are also cases in which the opposite occurs. In any case, the type of mammoth figure found here is always related to archaic phases.

Pyrenees

The Pyrenean Mountains have a lower number of rock art sites, and these are mostly concentrated in the central area, Ariège, while towards the Bay of Biscay coast they become more infrequent and dispersed. In the eastern area a few minor caves are situated near basins of rivers flowing into the Mediterranean Sea; they have been excluded from our study.

The pattern for parietal art activity during the Upper Palaeolithic is totally different concerning the sites along the Pyrenean river basins discharging into the Bay of Biscay. Caves with pre-Magdalenian decoration phases only are very scarce ($n = 3$), while most of the ensembles are dated to the Late Upper Palaeolithic ($n = 21$), or contain decorations from several phases ($n = 6$).

Except for Erberua, all the caves with several decoration phases are located in the area of the Ariège, creating a gap of 200 kilometres between the Cantabrian region and the Pyrenean area, in a similar way as previously noted for the eastern Cantabrian region. In fact, Erberua and Alkerdi 2 are the only pre-Magdalenian caves in the western Pyrenees. Once again, different patterns are observed in the symbolic re-utilisation of the caves (fig. 4). In Erberua and Les Trois Frères there are Gravettian engravings and hand stencils in different sectors, in an arrangement and style similar to Gargas, but in smaller numbers. Both caves also contain large ensembles corresponding to the Middle/Upper Magdalenian, most of them juxtaposed or even quite distant from the previous parietal art representations. Only in the *galerie aurignacienne* in Les Trois Frères there are two black Magdalenian bisons and few engravings of horses covering the Gravettian panels. On the other hand, Gargas Supérieur and Tibiran are two small caves near Gargas, and both of them possess modest ensembles with pre-Magdalenian and Magdalenian cave art. The representations of the two phases are close to one another inside these caves, but in different panels. In the case of Le Portel and Mas d'Azil, the main ensembles were produced in Magdalenian times. Depending on

stylistic features, some of the animals depicted in the former cave could be attributed to the Gravettian, but they are usually located in isolated panels. However, there is a horse with dotted hindquarters in the panel of the main composition of Upper Magdalenian horses in the *galerie Régnauld*. In Mas d'Azil, an isolated space in the *galerie Breuil* contains a group of red paintings different from the rest of the art in the cave, which can be stylistically attributed to pre-Magdalenian phases. Nonetheless, it is difficult to maintain this attribution, because the stylistic impressions may be due to bad preservation: a horse displays 'M'-shaped quartering, a typical convention of recent Magdalenian phases.

Charente/Dordogne/Lot

This area is a composite of three different regions, next to each other, with a continuous distribution of cave art. For this reason they are considered together here. This is one of the most important concentrations of caves with Upper Palaeolithic art, after the Cantabrian region, and separated from that region and the Pyrenees by the plain of the Landes. Caves with several decoration phases are known in Dordogne and Lot (fig. 5), but not in Charente.

In Lot, 21 sites with pre-Magdalenian rock art are known, with some particular sites where different decoration phases have been proposed, but always in periods before the recent Magdalenian: Pech-Merle (Lorblanchet et al., 1995), Marcenac (Lorblanchet, 1989), although considered later by J. Jaubert (2008) to be a synchronous Gravettian ensemble, Les Escabasses (Lorblanchet, 1965), and Cougnac (Valladas et al., 1993; Lorblanchet, 1994b). Nine Magdalenian ensembles are also known: Pestillac, Bigourdane, Carriot, Christian, Ste. Eulalie, Lagrave, and Mazet, with two possible cases of reuse of underground sites. The first one (Pergouset) is located in the Lot basin and was considered a synchronic ensemble (Lorblanchet, 2001), despite the presence of some animal depictions, with a morphology different from that used during the Magdalenian, which are classified as 'monsters' (Lorblanchet and Sieveking, 1997), in a particular deep sector – Salle IV – and with a contextual dating of charcoal to the late Aurignacian (Lorblanchet, 2001). Recently, these 'monsters' have been thought to be possibly 'Gravettian' because of their similarity with a morphotype defined in caves like Cussac, Gargas, or Aitzbitarte III, V and IX (Garate et al., 2020b). But the contextual dating of charcoal, too old for this technocomplex, means this attribution must be taken with caution. The other cave, Bourgneton, is located in the Dordogne basin; there, diachronic ensembles appear isolated along the main gallery, with a recent Magdalenian engraving of a reindeer in the deepest zone (Lorblanchet, 1971).

In Dordogne, 71 sites are known with rock art previous to the recent Magdalenian, and seven recent Magdalenian sites. Only in four cases (Font-de-Gaume, Combarelles I, La Mouthe, Bernifal) the underground space might have been reused, and two of these (Combarelles I, Bernifal) are to be considered quite uncertain

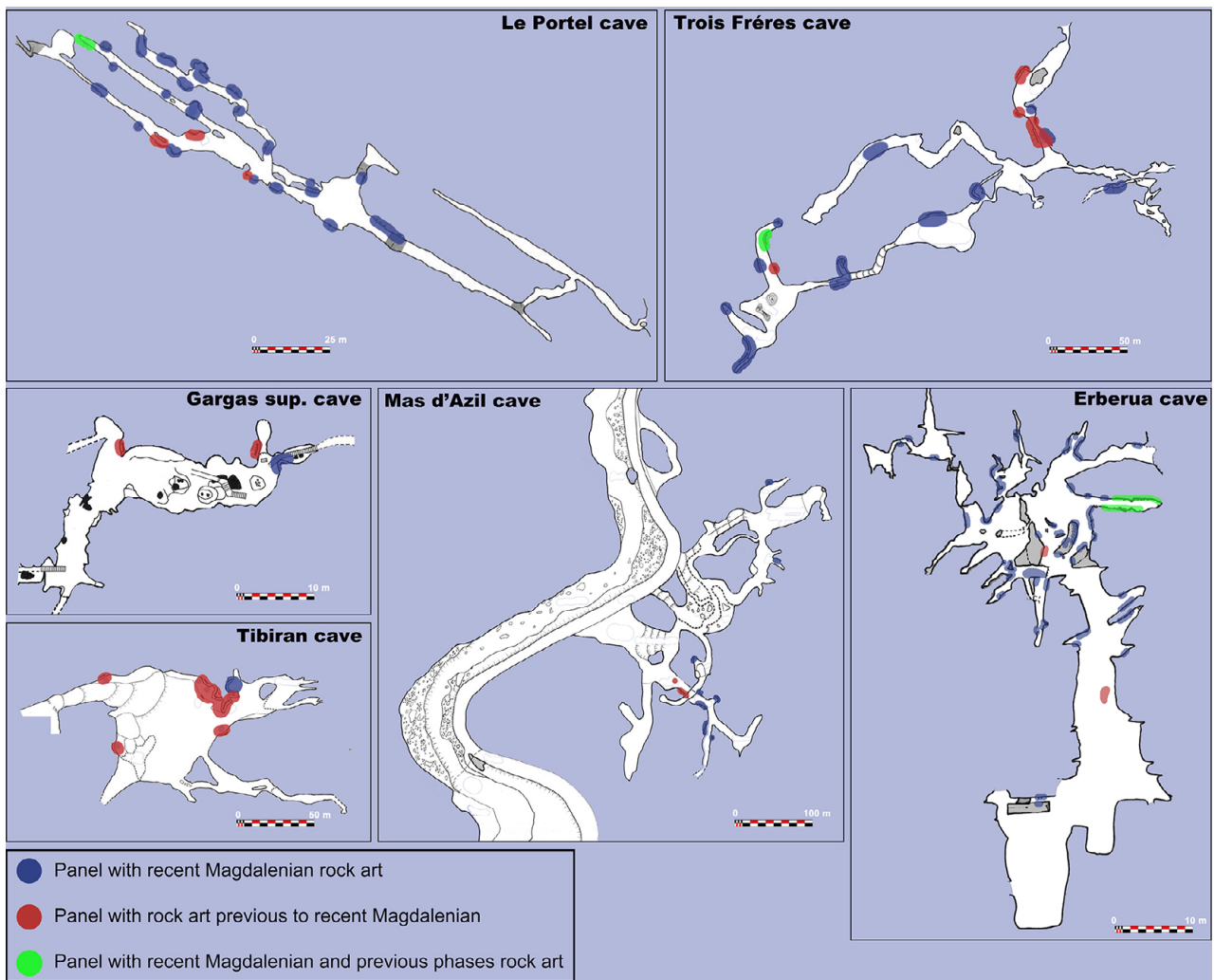


Fig. 4 – Topographic plans of caves in the Pyrenees, where deep zones were reused for decoration with rock art during the Middle/Upper Magdalenian: Gargas Supérieur (Barrière, 1984a); Mas-d’Azil (Alteirac and Vialou, 1984); Trois Frères (Bégouën and Clottes, 1984); Erberua (Larribau, 2013); Tibiran (Clot, 1984); Le Portel (Dauvois and Vézian, 1984).

Fig. 4 – Plans des grottes des Pyrénées, avec réutilisation des zones profondes identifiées pour le Magdalénien moyen / supérieur : Gargas supérieur (Barrière, 1984a) ; Mas-d’Azil (Alteirac et Vialou, 1984) ; Trois Frères (Bégouën et Clottes, 1984) ; Erberua (Larribau, 2013) ; Tibiran (Clot, 1984) ; Le Portel (Dauvois et Vézian, 1984).

Abb. 4 – Topographische Pläne der Höhlen in den Pyrenäen, in denen Bereiche tief im Inneren für Felskunst während des Späten Magdalénien wiederholt genutzt wurden: Gargas Supérieur (Barrière, 1984a); Mas-d’Azil (Alteirac and Vialou, 1984); Trois Frères (Bégouën and Clottes, 1984); Erberua (Larribau, 2013); Tibiran (Clot, 1984); Le Portel (Dauvois and Vézian, 1984).

because of the small number of motifs attributable to older phases. In all cases, there are no major differences in the distribution of the motifs belonging to the two phases, because those undoubtedly attributed to the Magdalenian, which are much more numerous, occupy a large part of the previously decorated sectors. However, unlike the ensembles in the Cantabrian region, for example, large palimpsests are not observed here, with the exception perhaps of Font-de-Gaume, where there are possibly different phases represented on the same walls of the main gallery, but in a less remarkable way.

In Charente, five sites are known with rock art attributable to phases earlier than the recent Magdalenian, and four Magdalenian ensembles have been documented, without any reuse of underground spaces decorated in earlier phases.

Vienne

Four sites with Palaeolithic rock art are known in Vienne. Only one of them has pre-Magdalenian rock art, and the others are attributable to recent Magdalenian phases. The reuse of caves is unknown in this region, and it is therefore part of a large gap of at least 400 km without reused caves between Loire and Dordogne.

Loire

Only two sites with Palaeolithic rock art are known in this region. One of them, Mayenne-Sciences, has synchronic decoration, undoubtedly attributable to a Gravettian phase (Pigeaud et al., 2003, 2010). The other one, Margot, has two diachronic decoration phases: one consisting of

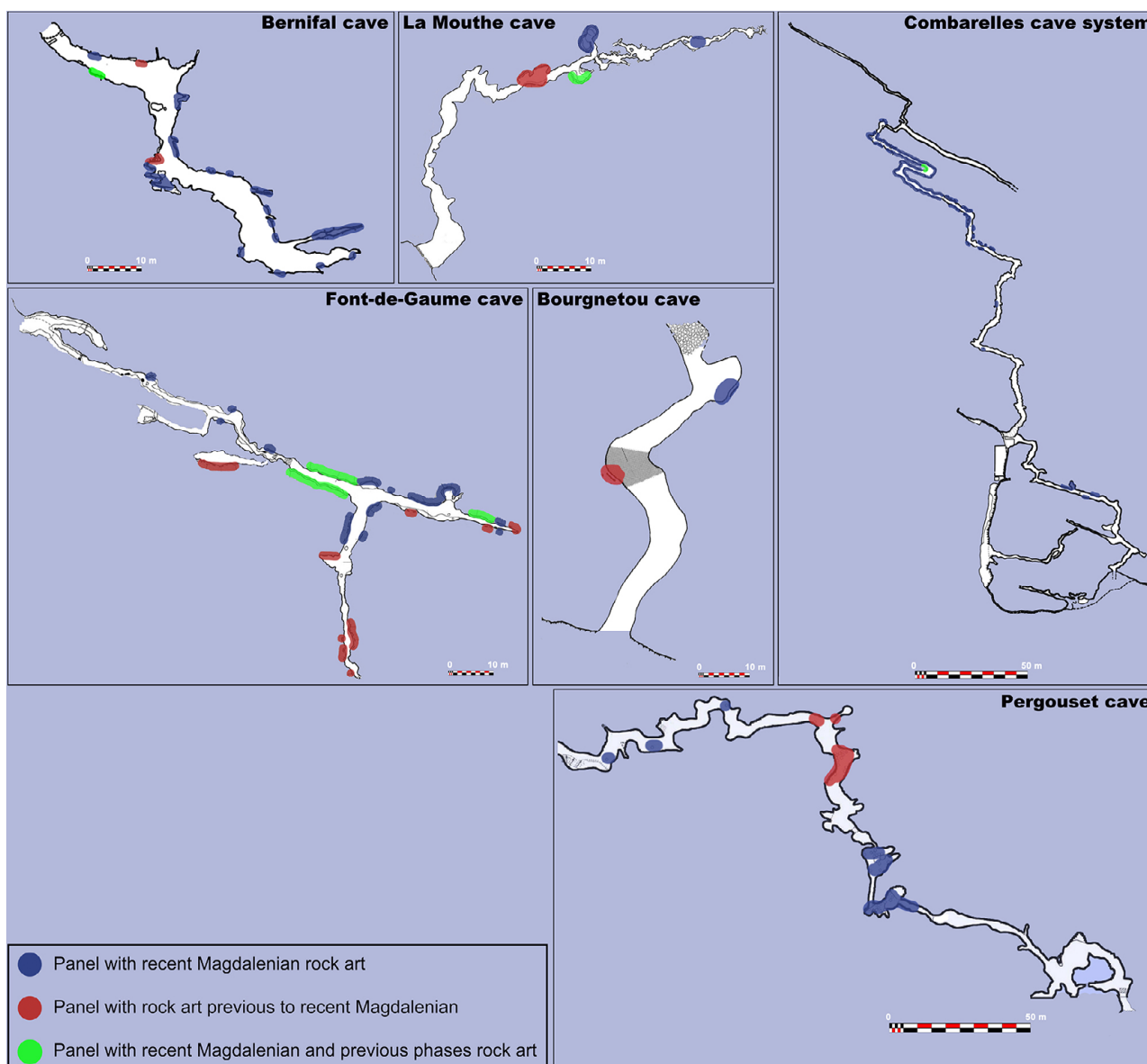


Fig. 5 – Topographic plans of caves in Dordogne and Quercy, where deep zones were reused for decoration with rock art during the Middle/Upper Magdalenian: Bernifal cave (Plassard, 2005); La Mouthe (Aujoulat and Geneste, 1984); Combarelles (Barrière, 1984b); Font-de-Gaume (Roussot, 1984); Pergouset (Lorblanchet, 1984); Bourgneton (Lorblanchet, 1971).

Fig. 5 – Plans des grottes de Dordogne et du Quercy, avec réutilisation des zones profondes identifiées pour le Magdalénien moyen / supérieur : Bernifal cave (Plassard, 2005) ; La Mouthe (Aujoulat et Geneste, 1984) ; Combarelles (Barrière, 1984b) ; Font-de-Gaume (Roussot, 1984) ; Pergouset (Lorblanchet, 1984) ; Bourgneton (Lorblanchet, 1971).

Abb. 5 – Topographische Pläne der Höhlen in den Regionen Dordogne und Quercy, in denen Bereiche tief im Inneren für Felskunst während des Späten Magdalénien wiederholt genutzt wurden: Bernifal cave (Plassard, 2005); La Mouthe (Aujoulat and Geneste, 1984); Combarelles (Barrière, 1984b); Font-de-Gaume (Roussot, 1984); Pergouset (Lorblanchet, 1984); Bourgneton (Lorblanchet, 1971).

hand stencils, oval signs and animals (megaloceros and bears), attributable to the Gravettian with similarities to Mayenne-Sciences, and the other one attributable to the Upper Magdalenian, stylistically comparable to northern Magdalenian ensembles (e.g. Gönnersdorf-Andernach; Pigeaud et al., 2006). A (third) Solutrean phase with parallels in the nearby Rochefort site (Hinguant and Biard, 2009) has also been proposed (Pigeaud et al., 2012). The Upper Magdalenian artists used the same galleries that had been decorated in previous phases but there are no large palimpsests like in the Cantabrian Region (fig. 6).

DISCUSSION

The results of this diachronic approach to cave art indicate that the reuse of underground spaces for symbolic purposes during the Upper Palaeolithic shows a very different distribution and characteristics around the Bay of Biscay seaboard (fig. 7).

Most of the reused caves are situated in the Cantabrian region. This might be related to more continuous graphical activities during the whole Upper Palaeolithic

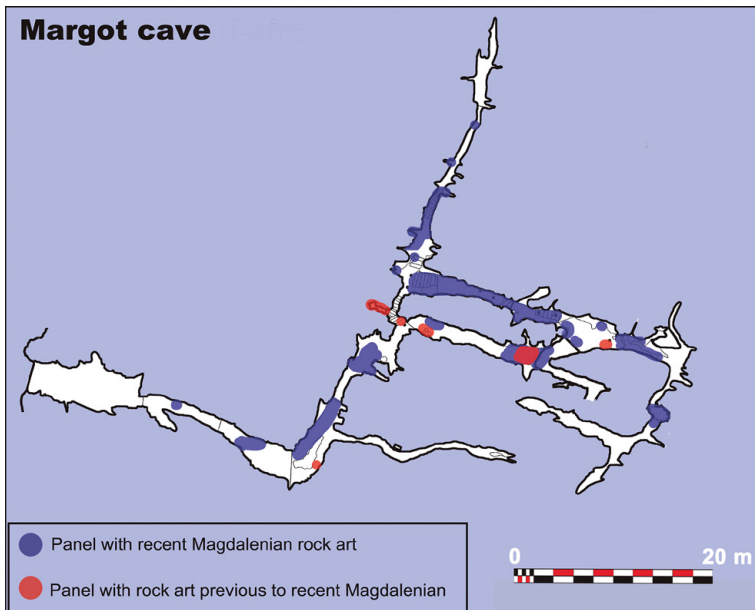


Fig. 6 – Topographic plan of the Margot cave (NW France), where deep zones were reused for decoration with rock art during the Middle/Upper Magdalenian (Pigeaud et al., 2006).

Fig. 6 – Plan de la grotte Margot avec réutilisation des zones profondes identifiées pour le Magdalénien moyen / supérieur (Pigeaud et al., 2006).

Abb. 6 – Topographischer Plan der Höhle in der Loire Region, in der Bereiche tief im Inneren für Felskunst während des Späten Magdalénien wiederholt genutzt wurden: Margot cave (Pigeaud et al., 2006).

and to the location of the cave sites in narrow valleys with an N-S orientation, especially on the central/western side (González-Sainz, 2004). In contrast, relative continuity is seen in the decoration of caves in the Dordogne and Lot, but these activities decreased noticeably during the Magdalenian. In both regions, the reutilisation of the same caves is mostly anecdotic. Therefore, this pattern is profoundly different from the one observed in the Cantabrian region. This contrasts with the model of occupation of the landscape, since there are abundant habitation places with prolonged use, such as Le Placard, Laugerie Haute, Laugerie Basse, La Madeleine, etc., although it is true that in most cases these were in rock-shelters and not caves (e.g. Capitan and Peyrony, 1928; Boyle, 1996; Clottes et al., 1997). In the other regions, the situation is completely different. The Pyrenees show a much higher density of Magdalenian cave art than of older periods. This coincides with a progressive increase in occupation deposits throughout the Upper Palaeolithic (Clottes, 1989). Thus, the possibility of the reutilisation of caves is consequently more limited. In Charente, Vienne, and Loire there is little cave art, and, in most cases, it is ascribed to Magdalenian periods without a diachronic development (Airvaux, 2001), except in Margot Cave (Pigeaud et al., 2006).

Another aspect to compare between the different regions is the way in which the Magdalenian graphic production is inserted in the previously decorated caves. Different patterns can be discriminated (fig. 8).

In the reused caves in the Loire, Dordogne, and Quercy, two main tendencies are defined. There are large recent Magdalenian ensembles in caves with scarce pre-Magdalenian non-figurative art (e.g. Margot, Combarelles I, Bernifal), and exceptionally there are also a few unremarkable Magdalenian ensembles in small caves with pre-Magdalenian decoration (e.g. Bourgneton). Only in the case of Font-de-Gaume, different phases may be represented in the same places across the main gallery, which is comparable to some sites in the Cantabrian

region, but to a lesser extent, perhaps due to bad preservation. In the Pyrenees the situation is slightly different. Here there are some pre-Magdalenian ensembles, including animals and hand prints (e.g. Erberua, Trois Frères), where the large Magdalenian decorations have partially covered the more archaic ones. In some other cases, there are small pre-Magdalenian and Magdalenian ensembles in the same caves (e.g. Tibiran, Gargas Supérieur), but distributed in different sectors. The Cantabrian region has a totally different pattern which is especially observed in its central/western part. Here the reuse of caves is a recurrent behaviour with special interaction between the different decoration phases. This is to say, the same main walls have been selected, with new paintings and engravings covering the previous ones again and again. This is clearly appreciable in half a dozen caves (Peña Candamo, Llonín, Tito Bustillo, Altamira, Castillo) where the same graphic phases can be discriminated on the main walls, as if it were a process of updating the cave's iconographic repertoire. In fact, all these recurrent panels are located in large spaces with easy access, or even share the same space as habitat areas (e.g. Tito Bustillo, Llonín, Altamira). In this way, they may have been public symbols indicating the human group based in this area. Nothing similar can be detected for the rest of western Europe, not even in the eastern Cantabrian region.

A possible explanation for this exceptional pattern can be related with a continuous identification of the graphical codes during the whole Upper Palaeolithic and with a progressive adaptation over time to the new ones (updating of the main walls). In this case, the symbolic value of the placement is as important as the rock art itself, prolonging its usefulness by re-appropriation throughout the whole Upper Palaeolithic. In fact, these caves have a long chronology, with the stratigraphic data recovered in the archaeological deposits indicating continuous occupation.

In conclusion, a strong attachment to the same places can be detected in the central/western Cantabrian region,

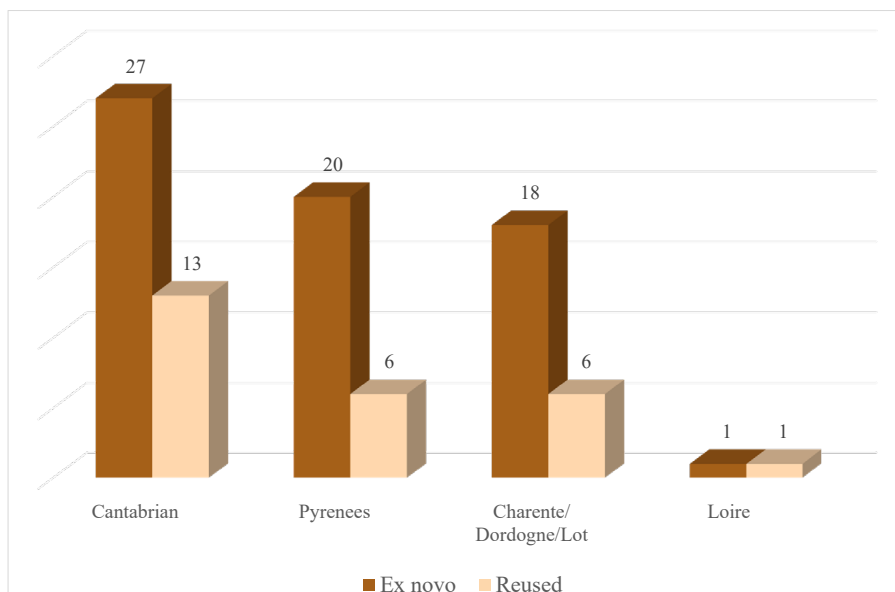


Fig. 7 – Comparison between reused sites and the ex novo Late Upper Palaeolithic cave art in the Bay of Biscay.

Fig. 7 – Comparaison entre l'art rupestre réutilisé et ex novo au Paléolithique supérieur tardif du golfe de Gascogne.

Abb. 7 – Vergleich zwischen den wiederholt genutzten Fundstellen und der ex novo Höhlenkunst des späten Jungpaläolithikums im Golf von Biskaya.

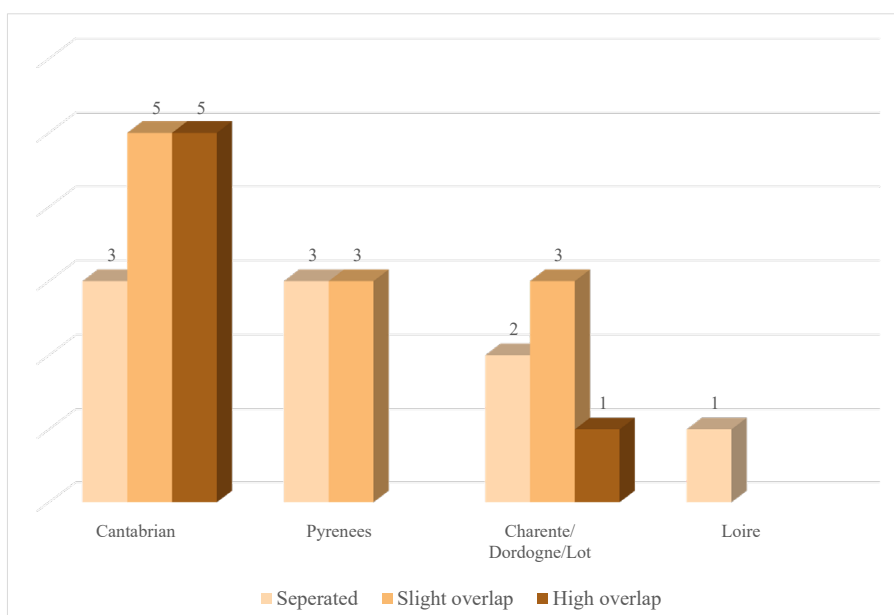


Fig. 8 – Comparison between the topographical distribution of different diachronic ensembles in caves reused during the Middle/Upper Magdalenian in the Bay of Biscay watershed.

Fig. 8 – Comparaison entre la distribution topographique de différents ensembles diachroniques dans des grottes réutilisées au cours du Magdalénien moyen / supérieur dans le bassin versant du golfe de Gascogne.

Abb. 8 – Vergleich zwischen der topographischen Verteilung verschiedener diachroner Ensembles von Höhlen im Golf von Biskaya, die während des Späten Magdalénien wiederholt genutzt wurden.

not only for subsistence strategies, but also for symbolic purposes. It is interesting to note that the Cantabrian region had very specific graphic traditions already in pre-Magdalenian times (Garate, 2008) that likely reinforced this close diachronic bond. Some similar sites in other areas display recurrence in the habitat, like Isturitz, Mas d'Azil, or Le Portel in the Pyrenees (Clottes, 1989),

and La Mouthe, Font-de-Gaume, or Combarelles I in the Dordogne (Aujoulat and Geneste, 1984; Plassard, 2005). Even so, the symbolic pattern is different there, possibly because they are more dispersed geographically or just because there was a different way to reuse the symbolic spaces (without a clear superimposition over the previous phases, perhaps distancing themselves from them).

CONCLUSION

This paper has approached, for the first time, to study the reutilisation of symbolically used underground spaces around the Bay of Biscay during the Upper Palaeolithic. Previous studies have been partial, restricted to specific geographical areas, and have not considered the phenomenon as a whole. Therefore, the main goal of the present study was to construct a preliminary overview in order to find differences and/or similarities in the reutilisation patterns.

As determined, there is a recurrence in the symbolic use of these spaces during the whole period, which is especially striking in the central/western Cantabrian region. This is very significant because it provides evidence for shared behaviour concerning graphic codes in human groups that followed one another over time and are archaeologically represented by very different techno-complexes. In fact, regarding the Upper Palaeolithic as a whole, this re-appropriation is expressed in different ways: sometimes there is a restoration of previous images as in Cougnac and Pech-Merle for pre-Magdalenian periods (Lorblanchet, 2010), in other cases an update of a message when new figures are superimposed in the main sectors like in the western Cantabrian region (González-Sainz, 2004), a kind of physical disconnection recurring to different parts of the caves – with only a few overlapping examples – as in the eastern Cantabrian region, Pyrenees, and the French regions (Garate et al., 2020a, b and c), or even a rupture, with previous phases ‘deleted’ as in Cosquer or Chauvet (Clottes et al., 2005). In fact, this is visible also in other regions and chronologies of the European Palaeolithic: La Pileta cave at the Mediterranean coast, for example, has continuous decoration phases since pre-Magdalenian times to the Holocene (Sanchidrián et al., 2001), and there are open-air sites

in some Iberian river valleys of Spain and Portugal (e.g. Douro, Tajo, Guadiana) with several continuous decoration phases (De Balbín Behrmann, 2008), as well as the diachronic accumulation of portable art in Parpalló cave (Villaverde, 1994).

This type of reuse dynamics of rock art sites is also well known in other geographical and chronological contexts with very complex sequences and extended over time (Lorblanchet, 1980). For example, this is the case for South African art from North Cave at Drakensberg (Russell, 2000), Borneo, Sulawesi, and east Timor (Aubert et al., 2014; 2018b; Standish et al., 2020), in the Patagonian (Argentina) Las Manos Cave (Gradin et al., 1976), or in the Australian Arnhem Land (Chippindale and Taçon, 1993).

Even from an ethno-archaeological point of view, this re-appropriation has been common behaviour of some human groups around the world. It has been documented for the San people, for whom possible different meanings for each art production episode are suggested (Lewis-Williams, 1992), or identified in aggregation camps in the Dâureb massif in Namibia (Vogels et al., 2020). Indeed, in many European caves with Palaeolithic art, an extensive repertoire of archaeological remains is known (whether chronologically related to graphic activity or not), which might indicate a reuse of these spaces even at moments far removed from the application of the decoration itself (Medina-Alcaide et al., 2018).

As we have mentioned before, the current investigation was limited to the main topic of the geographical and spatial distribution of the caves and is preliminary because our main objective was – and still remains – a global overview. Further and more profound analyses should be carried out to specify the interaction between the different decoration phases, to define the graphic construction patterns in the ensembles and, obviously, to explain the differences detected.

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