

What a carry on? Portable art and changes of symbolic meaning

Iain DAVIDSON*

I dedicate this paper to the memory of Javier Fortea Pérez. At the time of my ongoing research in Spain he was my friend, and a great help in my studies. I owe him a lot. He invited me to give my first ever lecture –in Spanish in Salamanca– which was not perhaps my most brilliant performance. He also invited me to study the bones from his excavations in Les Mallaetes with Francisco Jordá (Davidson 1976) and we enjoyed long arguments about the meaning of changes in stone industries at Les Mallaetes and Parpalló. It was a great sadness to me that I lost contact with him after he took me to La Vinya and Lluera in 1984. I had always thought it would be good to renew my acquaintance and discuss his extraordinary success since then, particularly his brilliant work at El Sidrón. Alas, it was not to be. He will be sorely missed throughout the discipline.

Abstract

The motivation for this paper is the continuing publication of maps of European Upper Palaeolithic “art” sites that omit the site of Parpalló (e.g. Bahn & Vertut 1988; Clottes 2008; Guthrie 2005; Klein 1989; Ucko & Rosenfeld 1967). It asks the question: Why don't people see the importance of Parpalló? It seeks to show the important principles about the study of prehistoric paintings and engravings, particularly of the Pleistocene, that are illustrated by Parpalló.

Parpalló (Fig. 1) is generally omitted from surveys of Palaeolithic cave paintings and engravings in Europe (see my other paper in this volume for discussion of the inappropriateness of calling it “art”), but it should not be. Villaverde's (1994) comprehensive analysis showed that the site contains 5034 pieces with paintings or engravings or both, 6245 decorated surfaces, including 766 images of animals, 446 of which are identifiable to species. This is two orders of magnitude more than have been found in other sites of Mediterranean Spain. These images were executed on small slabs of stone (almost all less than 200mm maximum dimension) (Villaverde Bonilla 1994: 60) which were found during Pericot's stratigraphic excavations from 1929-1931 (Pericot García 1942). While there have also been various studies of the stone artefacts (e.g. Fullola Pericot 1976; Villaverde Bonilla & Peña Danchez 1981), I was able to study the animal bones from these stratigraphic layers (Davidson 1989b) and to obtain radiocarbon dates using some of the bones (Davidson 1974). This provided a reasonably well-established chronology from 26.5ka cal BP to 13.9ka cal BP (Bofinger & Davidson 1977).

* Australia



Fig. 1. Mondúver from the Marchuquera. Parpalló is visible in the centre of the photograph (right to left) about half way up the mountain. (*Photo Iain Davidson.*)



Fig. 2. Stratigraphy of Parpalló as recorded by Pericot at the end of the excavations in 1930. (*Photo Servicio de Investigación Prehistórica.*)

Given that the stratigraphy was generally horizontal (Fig. 2), finds could be related to the stratigraphy and the chronology. These 766 images represent the most

certainly dated assemblage of Upper Palaeolithic paintings and engravings anywhere in Europe, and probably the most certain anywhere in the world. It is completely inappropriate for rock “art” scholars not to give the paintings and engravings from Parpalló the importance they should have.

Because we can identify the species of animals in the images (Fig. 3-6) (almost all Spanish Ibex, Red Deer, Horse and Aurochs), it is possible to compare the relative frequencies of different species represented with the species among the animal bones (Davidson 1999). The most abundant among the bones, especially in the lower layers, were Spanish Ibex, *Capra pyrenaica*. These could be identified definitively by their horn cores (Fig. 3). Next in abundance were Red Deer, *Cervus elaphus*, which were already widely known because of the identification of the groove and splinter technique of preparing antler artefacts (Clark 1954, Fig. 79) (Fig. 4). The equids were next in abundance, probably a large species and a small one, probably *Equus caballus* and *Equus hydruntinus* (but see discussion in Davidson 1989b: 67), and it is just possible that both are represented in the paintings and engravings (Fig. 5). Finally, among the certain identifications were small numbers of bones of *Bos primigenius*, including some of the largest ever measured in this region as shown by the comparison between one of the bones and a large modern cow from Australia (Fig. 6). Spanish Ibex, Red Deer and Horse were all represented in the parietal art of the site of Cueva del Niño (Almagro Gorbea 1971), in Albacete province (now in Castilla-La Mancha) (see complete excavation report in Davidson 1981, Ch. 10) .

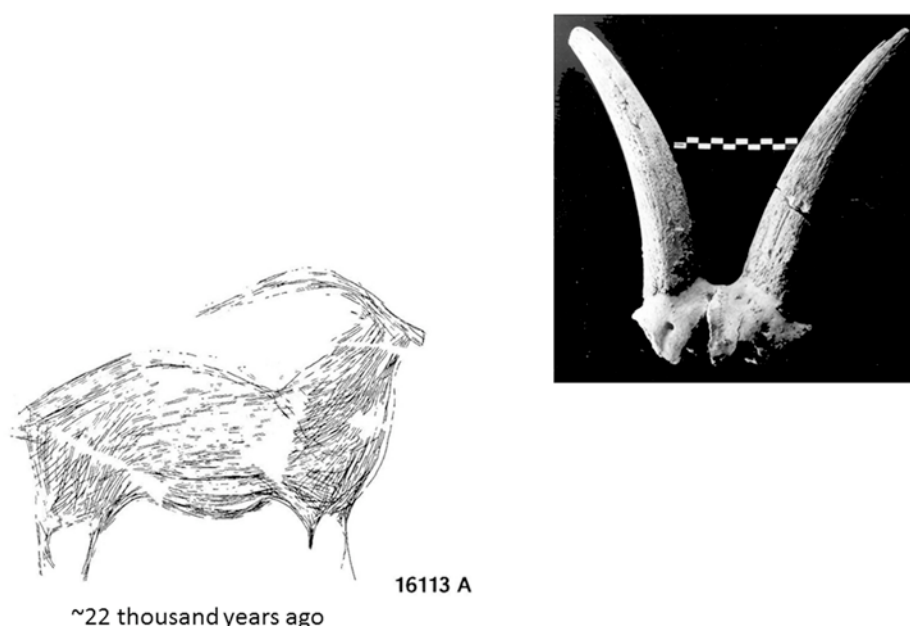


Fig. 3. *Capra pyrenaica* from Parpalló: engraving from Villaverde 1994. (Photo Iain Davidson.)

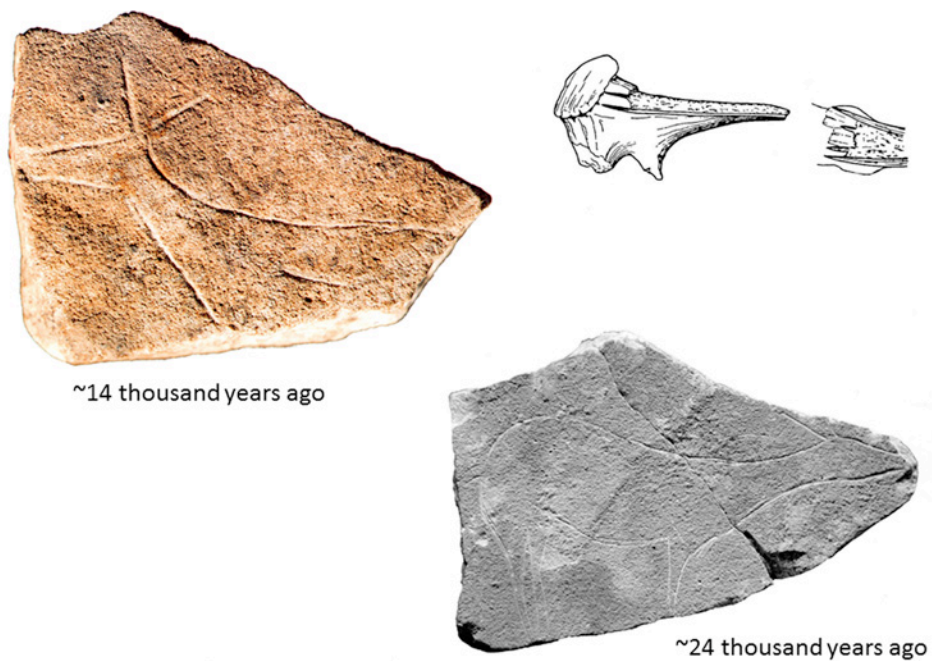


Fig. 4. *Cervus elaphus* from Parpalló. (Photos Servicio de Investigación Prehistórica; line drawing from Clark 1954.)

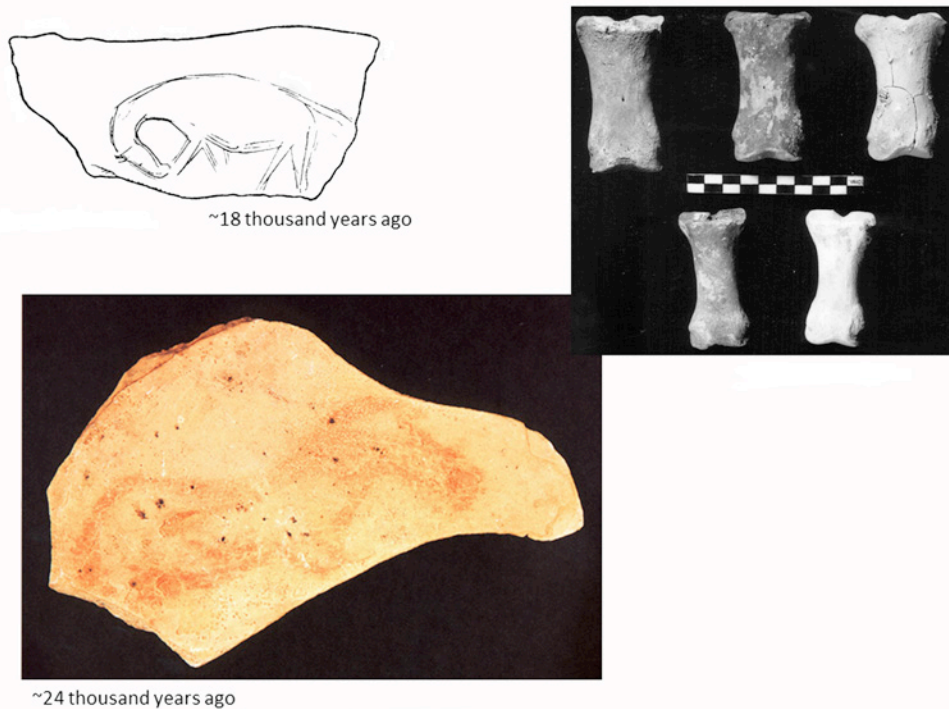


Fig. 5. Equids from Parpalló. (Drawing from Pericot 1942; photo of horse painting from Servicio de Investigación Prehistórica; photo of bones of large and small equids by Iain Davidson.)

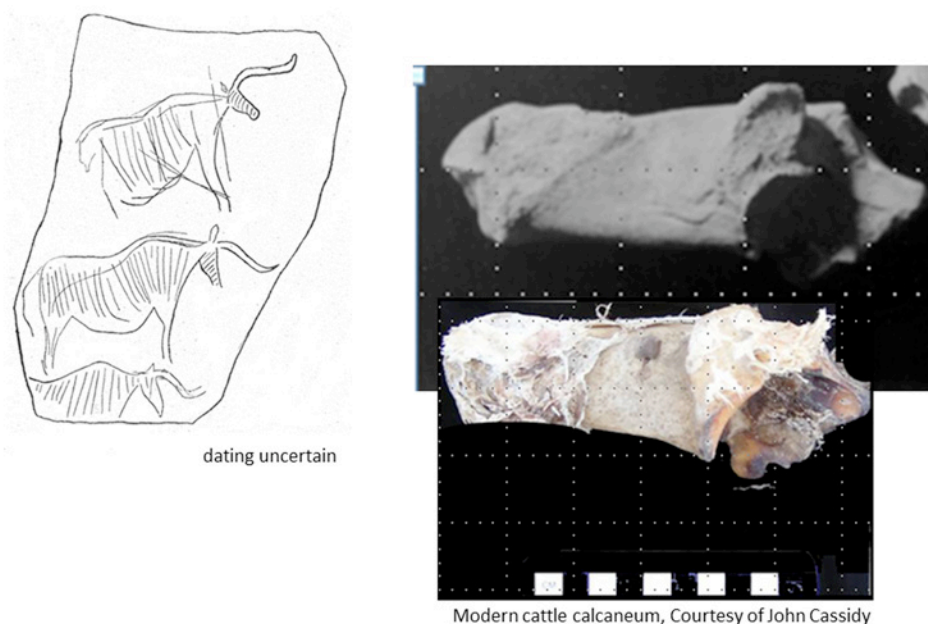


Fig. 6. *Bos primigenius* from Parpalló. (Drawing from Pericot 1942; photos of ancient and modern calcanea Iain Davidson.) Thanks to John Cassidy for the bone from the modern animal.

Unfortunately, taphonomic studies (see also Martinez Valle 2001; Perez Ripoll & Martinez Valle 2001) suggest that the large animals were not treated in the same way as the medium sized animals neither by the agencies that deposited the bones at the site, nor by the excavation and analysis of them. One example of this is that the excavators observed large numbers of rabbit bones (as seen at sites excavated more recently) (Aura Tortosa *et al.* 2002; Davidson 1976). None were collected; none were represented in the images at the site. As a result, the only reliable comparison is one which considers the images and the bones of the Spanish Ibex and the Red Deer, but because of the possible biases among the bones, it is best to compare the ratios of these species in both cases.

This enables us to assess the common statement that the animal bones do not correspond with the paintings and engravings on the walls (Vinnicombe 1972), most obvious from the relative scarcity of reindeer images in times and places where the bones are totally dominated by that species (Rice & Paterson 1985, 1986). At Parpalló, the lower layers, before 20.4 ka cal BP, contain about 2 deer images for every ibex image and about 7 ibex among the bones for every 2 deer. But after that date, the two ratios come together about 1.5 ibex for every deer in both images and bones (Fig. 7). That change cannot be explained simply in terms of environmental change, and I have interpreted it as a change in the symbolic values associated with those animals (Davidson 1999). The date of the change also corresponds with the change from the Solutrean to the Magdalenian (Solutreo-gravettian 3 to Old Magdalenian A in Villaverde's classification) (Davidson 2005). As a result, Parpalló also seems to demonstrate as no other site does that this change is a real cultural change and not just a change of lithic and bone tools. The relationship between symbolism and the environment changed through time, and when we return to look more closely at the relationship between images and bones, it turns out that the relationship also varied across space.

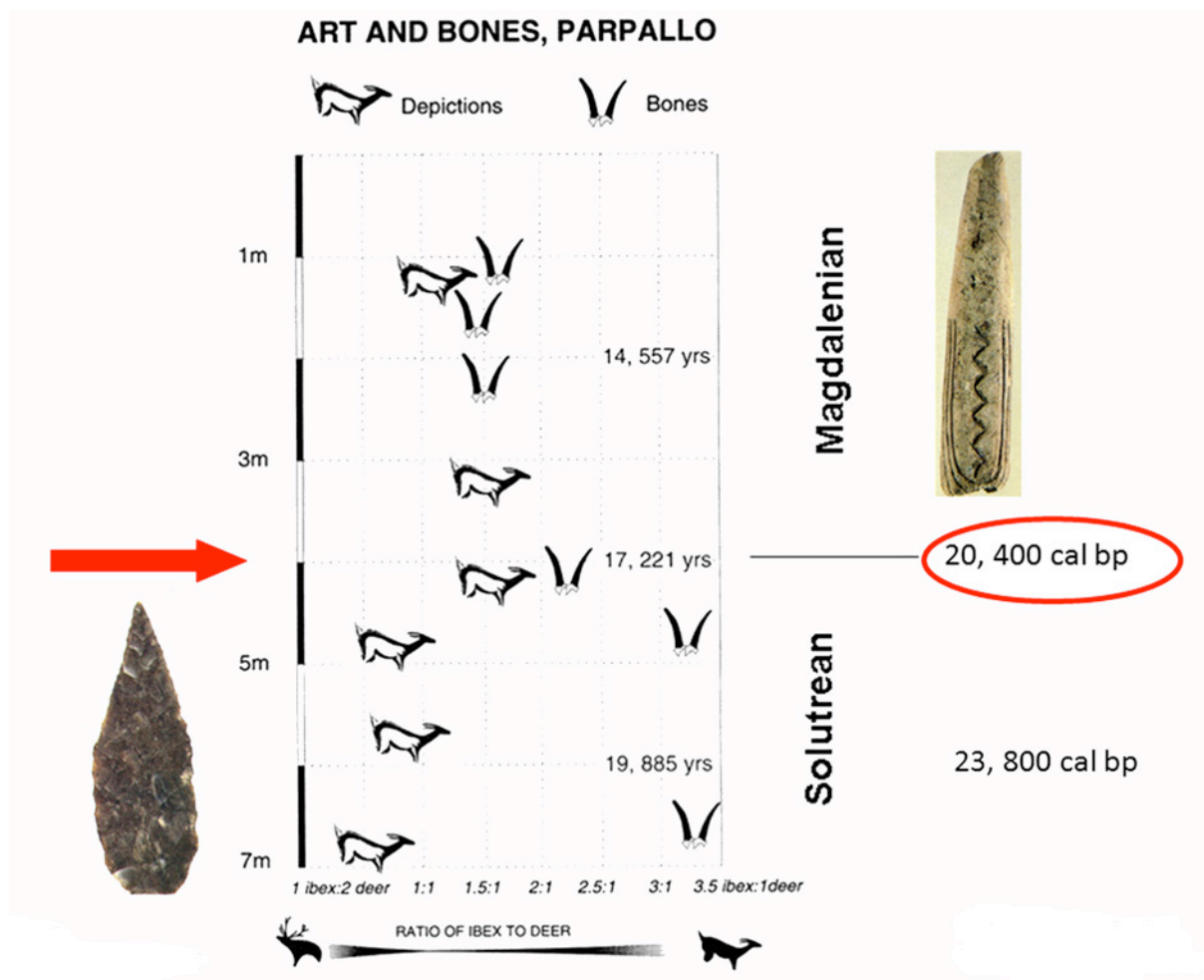


Fig. 7. Sequence of ratios of animals in paintings and engravings and in animal bones from Parpalló. (Original drawing by Heather Burke published in Davidson 1999. Photographs of artefacts from Villaverde & Martí 1984.)

Among the animal bones, I found one bone, of a horse, and I am reasonably confident that there was only one, which had an engraved image, which was also of a horse (Aparicio Pérez 1981) (Fig. 8) from the levels immediately before the cultural change. This suggests that, despite the availability of an alternative medium for image making that was understood and recognised at the time, there was something deliberate about using stone plaquettes for image making. This led me to consider the uniqueness of Parpalló in the context of other sites with plaquettes (Davidson 1989a). Many sites have a few plaquettes with images, but only small numbers of sites have large numbers of them. I argued that this is an indication that whatever information was conveyed through the images was also restricted in access. Further examination of the chronological distribution of these sites showed that the associated behaviour became more widespread after 20,000 years ago (Davidson 2005), consistent with the interpretation of demographic expansion after the Last Glacial Maximum (MIS 2) by Gamble and colleagues (Gamble *et al.* 2004). It is also consistent with the apparent differentiation of style provinces in the Solutrean in Mediterranean Iberia, Cantabria, SW France and Northern France (Banks *et al.* 2008).

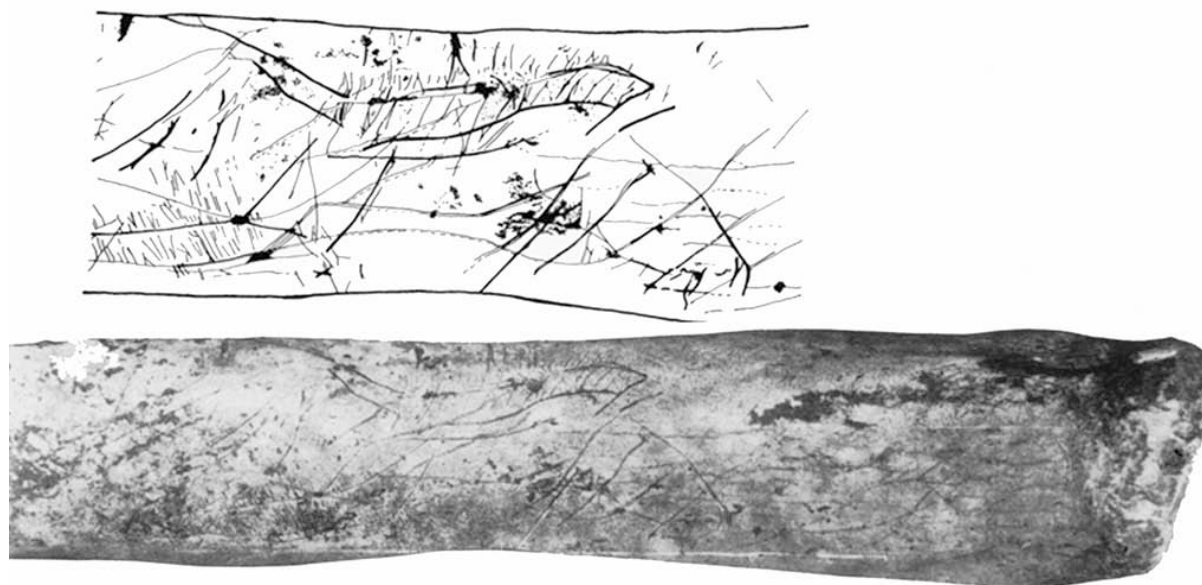


Fig. 8. Engraved horse bone found during analysis of fauna. (*Photo Servicio de Investigación Prehistórica; drawing from Aparicio, 1981.*)

Villaverde's study looked closely at the stylistic conventions (see also the way in which the concept of style is analysed using materials from Parpalló by Pigeaud 2007) among the images of particular species (Villaverde Bonilla 1994: 95). All of these changes took place within a single tradition of iconicity. This can be illustrated by his analysis of the nose shapes of animals through the sequence (Fig. 9). The first division is into open and closed nose types: the two forms occur in all chronostratigraphic units, and there is no clear differentiation between the Solutreogravettian 3 and the Old Magdalenian A. Within the Closed nose types, there is a slight variation across this boundary –there are no Duck bill noses in the later period, but then there are only three earlier. Given the importance we attach to stylistic differences in inferences about social relationships (Wiessner 1983, 1991; Wobst 1977) it is a challenge to find that there is a case for a behavioural or ideological change across a boundary without a stylistic change. In a previous paper in tribute to Andrée Rosenfeld on her retirement I made a similar point (Davidson 1999). There, I pointed out that the ideological change at Parpalló might make us pause before inferring anything like a continuity of symbolism or belief system solely on the basis of the evidence of modern informants whose only knowledge is about the way in which painted images are seen today.

Finally, the latest date for painting and engraving at Parpalló is about 14,000 years ago. Radiocarbon dates for images at Le Portel and at Las Monedas –the latest direct dates for cave paintings– are also of that age (Igler *et al.* 1994). It seems to be the case that Upper Palaeolithic painting and engraving did not survive the global warming before the Younger Dryas.

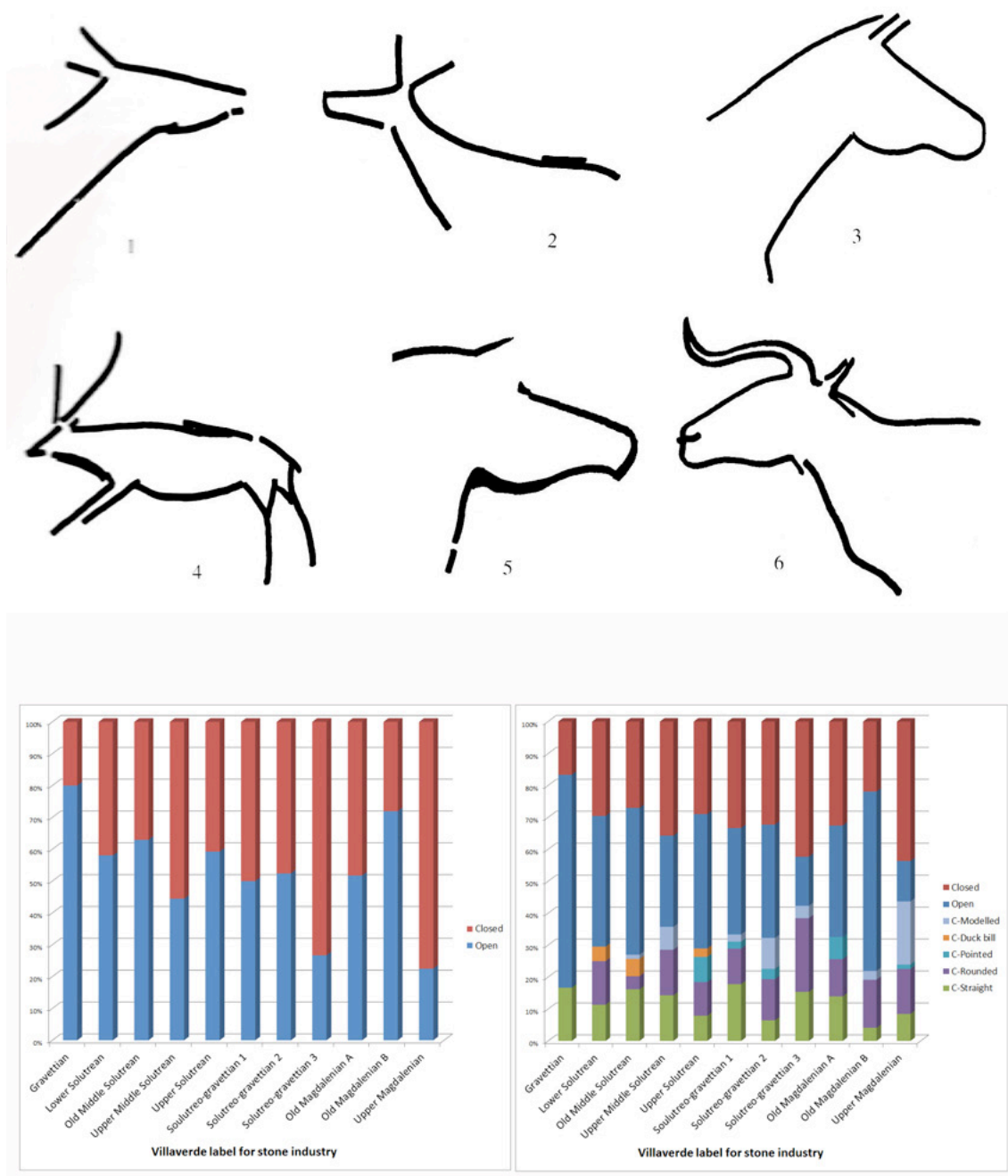


Fig. 9. Continuing iconicity through the sequence at Parpalló. (Drawings from Villaverde 1994, Fig 1, p. 95. Graphs drawn from counts in Villaverde 1994, Cuadro 14: 95.)

There is detailed evidence now available for climatic change over the last several hundred thousand years as a result of analysis of various proxies including the evidence from cores through the ice caps in Greenland (e.g. Alley 2000a) and Antarctica (Petit *et al.* 1999). Convenient markers of particular cold events are now defined as Heinrich Climatic Events thought to be synchronous world-wide, but originally identified in the north Atlantic in regions close to France and northern Spain (Hemming 2004).

Almost all European Upper Palaeolithic paintings and engravings are earlier than the Heinrich Climatic Event, also known as the Younger Dryas (Alley 2000b) and as

the Greenland Stadial 1, which lasted from ~12,700 BP to 11,710 BP (equivalent of calibrated years BP) (Steffensen *et al.* 2008) and the conditions in the West Mediterranean seem to match those from the Atlantic and Greenland (Martrat *et al.* 2004). The latest dates for cave paintings in France are from Le Portel (Igler *et al.* 1994) and their calibrated ages are 13.5 ± 0.16 ka cal BP and 14.3 ± 0.28 ka cal BP. In Cantabrian Spain, the latest dates are from Castillo and Candamo and they are in the range of the Younger Dryas. Three of the young dates from Castillo are from one figure of a bison (18c) which also has given older dates, particularly on the humic fraction of the samples. One of the dates from Candamo also has a much older date on the humic fraction, but the other cannot be explained away so easily. Several other dates have been obtained, but are generally discarded (González Sainz 2007). Support for this timing of the end of the Upper Palaeolithic and the production of paintings and engravings is provided by two other lines of evidence. First, the date for the latest paintings and engraving at Parpalló is estimated at 13.9 ka cal BP; second, an assessment of the most recent reindeer assemblages with Magdalenian stone industries date to $12,870 \pm 190$ cal BP (Kuntz & Costamagno 2011).

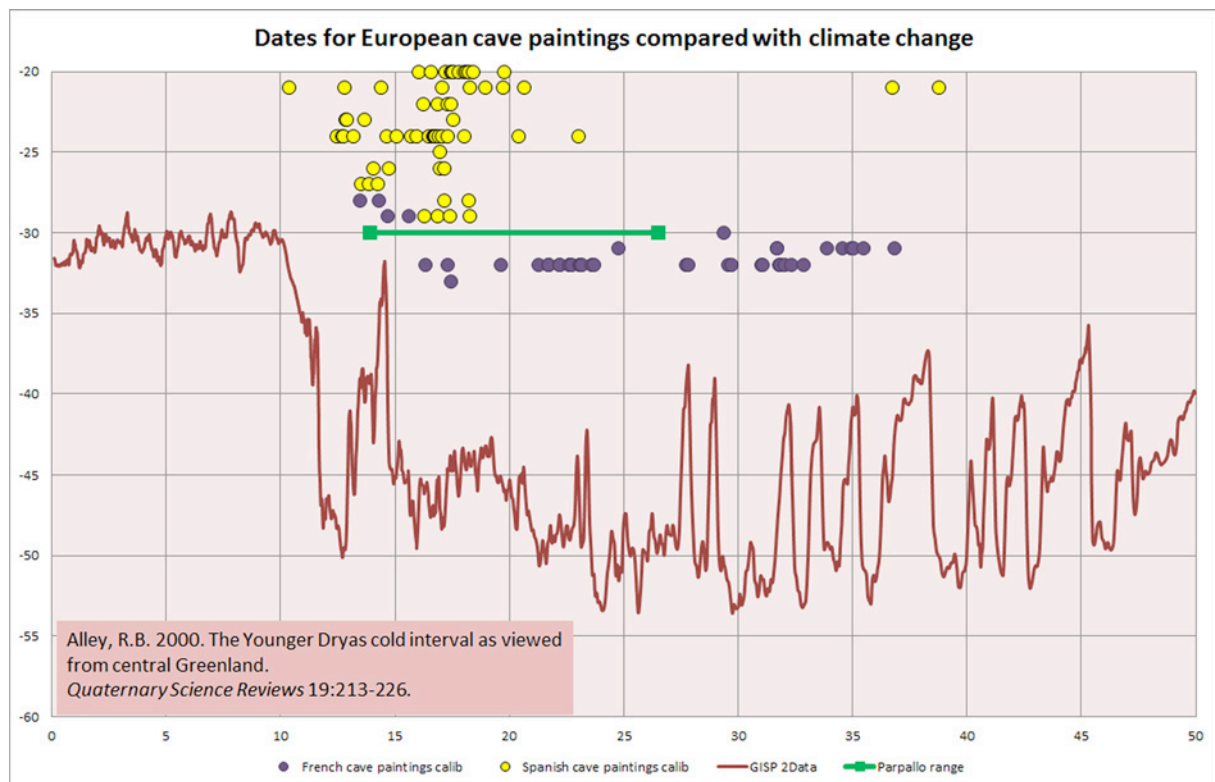


Fig. 10. Dated painting sites of western Europe. Yellow symbols, Spanish sites: from top Altamira, Candamo, Covaciella, Ekain, Castillo, La Garma, La Pasiega, Las Monedas, Las Chimeneas, Tito Bustillo. Blue symbols, French sites: from bottom Cougnac, Cosquer, Chauvet, Pech-Merle, Niaux (on same line as Tito Bustillo), Le Portel (on same line as Las Chimeneas). X-Axis shows dates in thousand calibrated years ago. Also shown is the climate curve from GISP2 (Alley 2000) plotted from the data at ftp://ftp.ncdc.noaa.gov/pub/data/paleo/icecore/greenland/summit/gisp2/isotopes/gisp2_temp_accum_alley2000.txt. The Y-axis shows the temperature in Greenland in degrees Celsius.

When all of the dates for paintings in France and Spain are plotted on the same chart (together with the climate curve) (data from Taçon & Langley, this volume, and Alley 2000 #8124; Bofinger 1977 #3341; González Sainz 2007 #8129; Igler 1994 #7971) (Fig. 10) it emerges that, other than the dates from Candamo, all of the Spanish dates are after 25,000 years ago, and most are after 20,000. The big exception is Parpalló which has the earliest plaquettes before 25,000 years ago. Les Mallaetes, of course, has a single engraved image earlier than this (Forteza Pérez 1978). The pattern for France is quite different, with long series of dates from both Chauvet and Cosquer and one early date from Pech-Merle. This may indicate yet another unique importance for Parpalló –that it may be the origin of the rituals associated with painting and engraving for Iberia. It would be tempting to consider the easterly distribution of Chauvet and Cosquer and suggest that the connection with Parpalló was along the Mediterranean shores now inundated by the postglacial sea. This would be consistent with the eco-cultural niche modelling of Banks and his colleagues (Banks *et al.* 2008).

Parpalló provides evidence to establish the variation in symbolism through time, to contribute to the understanding of its variation through space, and provides fundamental information about the relationship between iconicity and symbolism. It may well be that Parpalló also provides evidence of a much more fundamental role in the history of the production and use of paintings and engravings in the caves of the late Pleistocene in western Europe.

BIBLIOGRAPHY

- ALLEY R.B. 2000a. — Ice-core evidence of abrupt climate changes. *Proceedings of the National Academy of Sciences of the United States of America*, 97 (4), p. 1331-1334.
- ALLEY R.B. 2000b. — The Younger Dryas cold interval as viewed from central Greenland. *Quaternary Science Reviews*, 19, p. 213-226.
- ALMAGRO GORBEA M. 1971. — La cueva del Niño (Albacete). La cueva de la Griega (Segovia). Dos yacimientos de arte rupestre recientemente descubiertos en la Península Ibérica. *Trabajos de prehistoria*, 28, p. 9-62.
- APARICIO PÉREZ J. 1981 — Nueva pieza de arte mobiliario parpallense. *Archivo de Prehistoria Levantina*, 16, p. 39-58.
- AURA TORTOSA J.E., VILLAYERDE BONILLA V., PEREZ RIPOLL M., MARTINEZ VALLE R., CALATAYUD P.G. 2002. — Big game and small prey: Paleolithic and Epipaleolithic economy from Valencia (Spain). *Journal of Archaeological Method and Theory*, 9 (3), p. 215-268.
- BAHN P. & VERTUT J. 1988. — *Images of the Ice Age*. Leicester, UK: Windward.
- BANKS W.E., D'ERRICO F., PETERSON A.T., VANHAEREN M., KAGEYAMA M., SEPULCHRE P., RAMSTEIN G., JOST A., LUNT D. 2008. — Human ecological niches and ranges during the LGM in Europe derived from an application of eco-cultural niche modeling. *Journal of Archaeological Science*, 35 (2), p. 481-491.
- BOFINGER E. & DAVIDSON I. 1977. — Radiocarbon age and depth: a statistical treatment of two sequences of dates from Spain. *Journal of Archaeological Science*, 4, p. 231-243.
- CLARK J.G.D. 1954. — *Excavations at Star Carr*. Cambridge: Cambridge University Press.
- CLOTTES J. 2008. — *Cave art*. Paris: Éditions Phaidon.
- DAVIDSON I. 1974. — Radiocarbon dates for the Spanish Solutrean. *Antiquity*, 48, p. 63-65.
- DAVIDSON I. 1976. — Les Mallaetes and Mondúver: the economy of a human group in prehistoric Spain. In: SIEVEKING G. de G., LONGWORTH I.K., WILSON K.E. (eds.), *Problems in economic and social archaeology*, p. 483-499. London: Duckworth.
- DAVIDSON I. 1981. — *Late Palaeolithic economy in eastern Spain*. Cambridge: Cambridge University, Faculty of Archaeology and Anthropology. (Unpublished PhD thesis).

- DAVIDSON I. 1989a. — Freedom of information: aspects of art and society in western Europe during the last ice age. In: MORPHY H. (ed.), *Animals into art*, p. 440-456. London: Unwin Hyman.
- DAVIDSON I. 1989b. — *La economía del final del Paleolítico en la España oriental*. Valencia: Diputación Provincial.
- DAVIDSON I. 1999. — Symbols by nature: animal frequencies in the Upper Palaeolithic of western Europe and the nature of symbolic representation. *Archaeology in Oceania*, 34, p. 121-131.
- DAVIDSON I. 2005. — The painting and the tree: symbolism in the Upper Palaeolithic. A tribute to a great Basque scholar. *Munibe (Antropologia-Arkeologia)*, 57, p. 197-205.
- FORTEA PÉREZ J. 1978. — Arte Paleolítico del Mediterraneo español. *Trabajos de prehistoria*, 35, p. 99-149.
- FULLOLA PERICOT J.M. 1976. — Revisión de la industria lítica de los niveles solutrenses de la Cova del Parpalló. *Pyrenae*, 12, p. 35-72.
- GAMBLE C.S., DAVIES W., PETTITT P., RICHARDS M. 2004. — Climate change and evolving human diversity in Europe during the last glacial. *Philosophical transactions of the Royal Society of London, Series B—Biological Sciences*, 359, p. 243-254.
- GONZÁLEZ SAINZ C. 2007. — Dating Magdalenian art in North Spain: the current situation. In: BAHN P. & RIPOLL S. (eds.), *Palaeolithic Cave Art at Creswell Crags in European Context*, p. 247-262. Oxford: Oxford University Press.
- GUTHRIE R.D. 2005. — *The nature of Paleolithic art*. Chicago IL: The University of Chicago Press.
- HEMMING S.R. 2004. — Heinrich events: Massive late Pleistocene detritus layers of the North Atlantic and their global climate imprint. *Review of Geophysics*, 42, RG 1005, p. 1-43.
- IGLER W., DAUVOIS M., HYMAN M., MENU M., ROWE M., VÉZIAN J., WALTER P. 1994. — Datation radiocarbone de deux figures pariétales de la grotte du Portel (Commune de Loubens, Ariège). *Préhistoire ariégeoise, Bulletin de la Société préhistorique Ariège-Pyrénées*, XLIX 49: 231-236.
- KLEIN R.G. 1989. — *The human career. Human biological and cultural origins*. Chicago IL: The University of Chicago Press.
- KUNTZ D. & COSTAMAGNO S. 2011. — Relationships between reindeer and man in Southwestern France during the Magdalenian. *Quaternary International*, 238 (1-2), p. 12-24.
- MARTINEZ VALLE R. 2001. — Los grandes mamíferos pleistocenos. Una aproximación paleoambiental y bioestratigráfica. In: VILLAYERDE BONILLA V. (ed.), *De Neandertales a Cromañones. El inicio del poblamiento humano en las tierras valencianas*, p. 45-56. València: Universitat de València.
- MARTRAT B., GRIMALT J.O., LOPEZ-MARTINEZ C., CACHO I., SIERRO F.J., FLORES J.A., ZAHN R., CANALS M., CURTIS J.H., HODELL D.A. 2004. — Abrupt temperature changes in the Western Mediterranean over the past 250,000 years. *Science*, 306 (5702), p. 1762-1765.
- PEREZ RIPOLL, M. & MARTINEZ VALLE R. 2001. — La caza, el aprovechamiento de las presas y el comportamiento de las comunidades cazadoras prehistóricas. In: VILLAYERDE BONILLA V. (ed.), *De Neandertales a Cromañones. El inicio del poblamiento humano en las tierras valencianas*, p.73-98. València: Universitat de València.
- PERICOT GARCÍA L. 1942. — *La cueva del Parpalló*. Madrid: Consejo Superior de Investigaciones Científicas.
- PETIT J.R., JOUZEL J., RAYNAUD D., BARKOV N.I., BARNOLA J.M., BASILE I., BENDER M., CHAPPELLAZ J., DAVIS M., DELAYQUE G., DELMOTTE M., KOTLYAKOV V.M., LEGRAND M., LIPENKOV V.Y., LORIS C., PÉPIN L., RITZ C., SALTZMAN E., STIEVENARD M. 1999. — Climate and atmospheric history of the past 420,000 years from the Vostok ice core, Antarctica. *Nature*, 399, p. 429-436.
- PIGEAUD R. 2007. — Determining style in Palaeolithic cave art: a new method from horse images. *Antiquity*, 81 (312), p. 409-422.
- RICE P.C. & PATERSON A.L. 1985. — Cave art and bones: exploring the interrelationships. *American Anthropologist*, 87, p. 94-100.
- RICE P.C. & PATERSON A.L. 1986. — Validating the cave art: archeofaunal relationship in Cantabrian Spain. *American Anthropologist*, 88, p. 658-667.
- STEFFENSEN J.P., ANDERSEN K.K., BIGLER M., CLAUSEN H.B., DAHL-JENSEN D., FISCHER H., GOTO-AZUMA K., HANSSON M., JOHNSEN S.J., JOUZEL J., MASSON-DELMOTTE V., POPP T., RASMUSSEN S.O., ROTHLISBERGER R., RUTH U., STAUFFER B., SIGGAARD ANDERSEN M.L., SVEINBJORNSDOTTIR A.E., SVENSSON A., WHITE J.W.C. 2008. — High-resolution Greenland ice core data show abrupt climate change happens in few years. *Science*, 321 (5889), p. 680-684.
- UCKO P.J. & ROSENFELD A. 1967. — *Palaeolithic cave art*. London: Weidenfeld and Nicolson.
- VILLAYERDE BONILLA V. 1994. — *Arte Paleolítico de la Cova del Parpalló*. Valencia: Diputacio de Valencia, Servei d'Investigació Prehistòrica.
- VILLAYERDE BONILLA V. & MARTÍ OLIVER B. 1984. — *Paleolític i epipaleolític. Les societats caçadores de la prehistòria Valenciana*. València: Servei d'Investigació Prehistòrica.

- VILLAVARDE BONILLA V. & PEÑA DANCHEZ J.L. 1981. — *Piezas con escotadura del Paleolítico superior valenciano. Materiales des Museo de Prehistoria de Valencia*. Valencia: Diputación Provincial. (Serie de Trabajos Varios del Servicio de Investigación Prehistórica; 61).
- VINNICOMBE P. 1972. — Myth, motive and selection in southern African rock art. *Africa*, 42 (3), p. 192-204.
- WENINGER B. & JÖRIS O. 2008. — A 14C age calibration curve for the last 60 ka: the Greenland-Hulu U/Th timescale and its impact on understanding the Middle to Upper Paleolithic transition in Western Eurasia. *Journal of Human Evolution*, 55 (5), p. 772-781.
- WENINGER B., JORIS O., DANZEGLOCKE U. 2002. — Glacial radiocarbon age conversion. *Cologne radiocarbon calibration and palaeoclimate research package*. Cf. <www.calpal.de> (accessed 2012/04/15).
- WIESSNER P. 1983. — Style and social information in Kalahari San projectile points. *American Antiquity*, 48 (2), p. 253-276.
- WIESSNER P. 1991. — Style and changing relations between the individual and society. In: HODDER I. (ed.), *The meanings of things. Material culture and symbolic expression*, p. 56-63. London: Harper Collins.
- WOBST H.M. 1977. — Stylistic behavior and information exchange. In: CLELAND C.E. (ed.), *For the Director*, p. 317-342. Ann Arbor MI: University of Michigan, Museum of Anthropology.

Quote this article

- DAVIDSON I. 2012. — What a carry on? Portable art and changes of symbolic meaning. In: CLOTTES J. (dir.), *L'art pléistocène dans le monde / Pleistocene art of the world / Arte pleistoceno en el mundo*, Actes du Congrès IFRAO, Tarascon-sur-Ariège, septembre 2010, Symposium « Art mobilier pléistocène ». N° spécial de *Préhistoire, Art et Sociétés, Bulletin de la Société Préhistorique Ariège-Pyrénées*, LXV-LXVI, 2010-2011, CD: p. 1559-1570.