



Aguilera Aragón, I. (2022). *La comunidad prehistórica de la Muela de Borja (Zaragoza) 2550-1200 cal. ANE. Caesaraugusta 87*. Institución «Fernando el Católico». Zaragoza.

In June 1983 I drove from south-west England down through France in an old University Ford Transit van. With three other archaeology students from Bristol University, we were to participate in the archaeological excavations directed by Richard Harrison, Gloria Moreno López and Tony Legge at Moncín – a site high above Borja (Zaragoza). That year we dug the Bronze Age (and Roman) site on the Muela de Borja for 4 weeks with students from Zaragoza University and an eclectic group of wealthy US volunteers who were sponsoring the campaign through the American charity Earthwatch. We would repeat our summer adventure for the next 4 years, until the team dispersed and began to work on other Bronze Age sites such as nearby Majaladares. The excavations at Moncín were published in 1994 but there is a photograph of us all, tanned and tired, in the *Museo Arqueológico de Borja* which speaks more than a thousand words. It was my introduction to Aragonese food, to Borja wines, and to hard work through long hot summer days.

I didn't know it at the time but one person responsible for this abrupt change in my northern European routine was Isidro Aguilera, the author of this massive 368 page book. It was Isidro, a Borja resident, who had undertaken prospection all across the 50km² of flat-topped hills above the town and begun to find evidence for Bronze Age occupation, building on earlier discoveries at Moncín in 1969 and later

(Chapter 3). The area is not immediately promising to the archaeologist perhaps, it was certainly a long way from the wide open ploughed fields of southern England that I knew, but with great patience and persistence Isidro picked his way among the rocks and abandoned terraces to collect what he prized most – prehistoric objects, mainly flints and pottery dating between the *Calcolítico Final* and the *Bronce Tardío*. Since his earliest prospections in 1974 and working with the *Museo de Zaragoza* and the *Centro de Estudios Borjanos*, Isidro was able to build up a very complete picture of prehistoric occupation, most of it seemingly contained in his head and marked up on maps until now, though there have been occasional summaries available. In essence this volume is the synthesis of the past 45 years research, a labour of love and dedication fuelled by the music of Jethro Tull and John Mayall (the preferred archaeology playlist back then), which has required updating and re-thinking to take account of the many new sites discovered in the region as well as a wider evolving theoretical and methodological panorama. In this book we run from 'Site Catchment Analysis', first applied in the early 1970s by Cambridge archaeologists, through Thiessen polygons, to ARCGIS online in 2012. The contents could be read as a snapshot of the development of prehistoric landscape archaeology - a battery of landscape techniques from the last 50 years.

Edited from Aguilera's PhD thesis with many additions, this volume is divided into 22 chapters covering everything from the background and methodology behind the investigations, the environmental context and its exploitation, local prehistoric industries of worked flint, pottery, bone tools, rock art (the important group at Moncín is inscribed in the *Lista Representativa del Patrimonio Mundial*), distinctive funerary deposits (44 individuals from 6 different sites) and social organisation. In short, this is a comprehensive and skilful dissection of the archaeology and landscape of 42 sites within a prehistoric territory. A third of the book is dedicated to a 130 page gazetteer of sites with photographs and drawings of key finds (Chapter 8). The sheer quantity of data is remarkable and very clearly presented. The synthetic chapters are much shorter, readable and beautifully produced with plenty of high quality illustrations. The large format allows for double columns of text, legible maps and some excellent colour photography (for example of the lithics and polished stone tools in Chapters 11 and 12).

This is not a book for the faint-hearted or those seeking a quick overview (there is no index) but the

captioned photographs of the objects would surely make a very good online educational resource for a museum and perhaps bring the greater international attention they deserve?

It is always interesting to see how far archaeological prospection techniques differ from country to country. High resolution LIDAR for example is common in many UK projects, but remains hard to obtain in Spain. Low level aerial photography and geophysics are all staples of landscape evaluation too, as is 'shovel-pitting' in the US. Fieldwalking, the basis of this project, does not have the same profile in Spain as it may do in other countries. It is easy to see why.

The visibility of ground surfaces, the creation of terraces for agriculture and other post-depositional processes such as ploughing and colluviation are all obstacles to interpretation. But fieldwalking is cheap and relatively rapid, non-destructive too and produces plenty of data. There is that immediacy to discovery which cannot easily be replicated in the laboratory or computer screen. The anthropologist might question the concept of the site in this context but these are among other concerns are faced in the text by the author, together with questions of community and identity (Chapter 21). In any case it would be wrong to categorize this project as merely fieldwalking, it is far more than that. There are small-scale excavations, geoarchaeology sections and radiocarbon dates for key phases of occupation and landscape change. Larger investigations are fully documented at the 'Cueva de Majaladares I, II and III', 'Cueva de Estrechuelo', 'Era del Diablo', La Cogullota, 'Cueva de Moncín' with its significant cave paintings (see also the excellent photographs in Chapter 19 which are digitally enhanced and manipulated). Enormous credit is due to Aguilera for tackling all this with the determination and commitment required to release these data from a project so long in the making. This informative and illuminating volume is a case study in how to recover intractable evidence (with minimum resources it might be said) and then interpret it.

In many archaeological publications these days the voice of the author is not allowed to be heard, but here the author tackles some intriguing questions head on. How do we explain the origins of human occupation? Why did a group of people come here when it seems there were no, or very few, people around on the Muela in the '*Neolítico final*'? One suggestion (Chapter 22) is that the arrival of these

human migrants might have something to do with inter-group violence elsewhere, for which there is significant evidence across the Iberian peninsula at this date. Another curiosity to be explained is how some of the exotic objects found their way to the Muela. Marine shells are one example of this, certain kinds of tabular flint are another. One quern stone from los Poyatos has an origin in the Campo de Calatrava. This is explained here by the exchange and movement of women over large distances – 500kms in this case. The presence of tin oxide cassiterite at Moncín may imply even longer routes and networks, and in return the Muela may have been supplying fine animal skins and furs, perhaps milk products and horses. The point to emphasise is that the Muela was not at the periphery of economic systems, it was embedded within them.

This impressive tome represents a happy medium between compendium and academic treatise, but with money and time, the Muela has still more promise. A further evaluation of palaeoclimate would require the identification of more sites with good preservation of pollen and a programme of radiocarbon dating to follow. The '*turbera*' at Agramonte on Moncayo has great potential, but is some distance from the Muela. Another large assemblage of animal bone like that from Moncín or Majaladares would be welcome too, particularly given the excellent preservation of the bone on the Muela. All these are projects for the future, building closely upon this volume no doubt. Aguilera's text also highlights the importance of adequate soil samples for flotation to recover archaeobotanical remains and the potential for isotope studies which might finally answer the question as to whether prehistoric fields made use of some form of irrigation, as some believe, and perhaps tell us something more about the exploitation of animal stock.

The assemblages from Moncín and Majaladares in particular will continue to be an important scientific resource for the future (use-wear analysis anyone?). They surely deserve to be better known. There is an implicit invitation for someone to continue the journey, to refine and to build upon the insights here and to explore this rich archaeological heritage. In every sense, this volume achieves its goals and anyone with an interest in Bronze Age Iberia will want a copy on their shelves.

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