

A close-up, high-angle portrait of a woman's face, looking slightly to the right. Her hair is dark and pulled back. The lighting is soft, highlighting her features against a dark background.

First farmers BCN

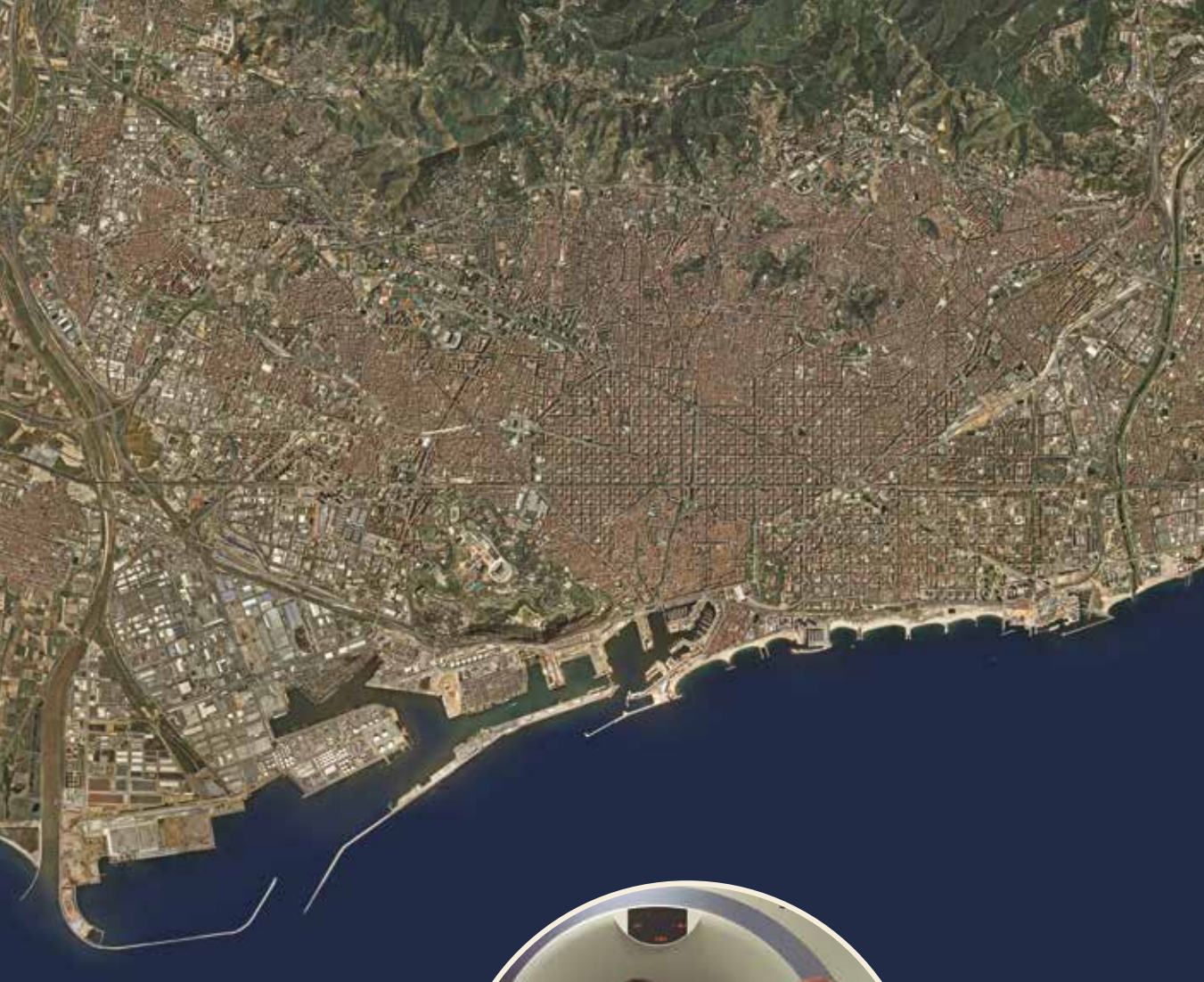
The major
innovation
7,500 years
ago



**First
farmers
BCN**

**The major
innovation 7,500
years ago**





When envisaging the future of humankind, the debate on how we obtain, distribute and consume food, both on the local and global scales, is of key importance. Within the context of the historical studies on the provision of food carried out by the Museum, the exhibition "First Farmers BCN" takes a close look at the agricultural communities that took shape in the Neolithic through the domestication of plants and animals. This major innovation from the Middle East reached the plain of Barcelona around 7,500 years ago...

The domestication of animals and plants was an innovation that arose in the Middle East around 12,000 years ago and then in the western Mediterranean about 7,500 years ago. In the sixth millennium before the common era (BCE) groups of humans whose means of subsistence were agriculture and herding settled on the plain of Barcelona, and in doing so brought about the first great transformation in its landscape. These were the first communities to permanently occupy and work the land where the city of Barcelona now stands.

This exhibition systematically brings together research carried out over the last twenty-five years and, for the first time, drafts a synthesis of the prehistory of the plain of Barcelona, from the pioneering settlers in the Early Neolithic to the first development of societies using metals in the second millennium BCE.



Scanner skull found at the archaeological site of la Caserna de Sant Pau del Camp, dated between 6,500 and 6,000 years ago, from which the forensic reconstruction of the face was made. Mútua de Terrassa, 2016. MUHBA

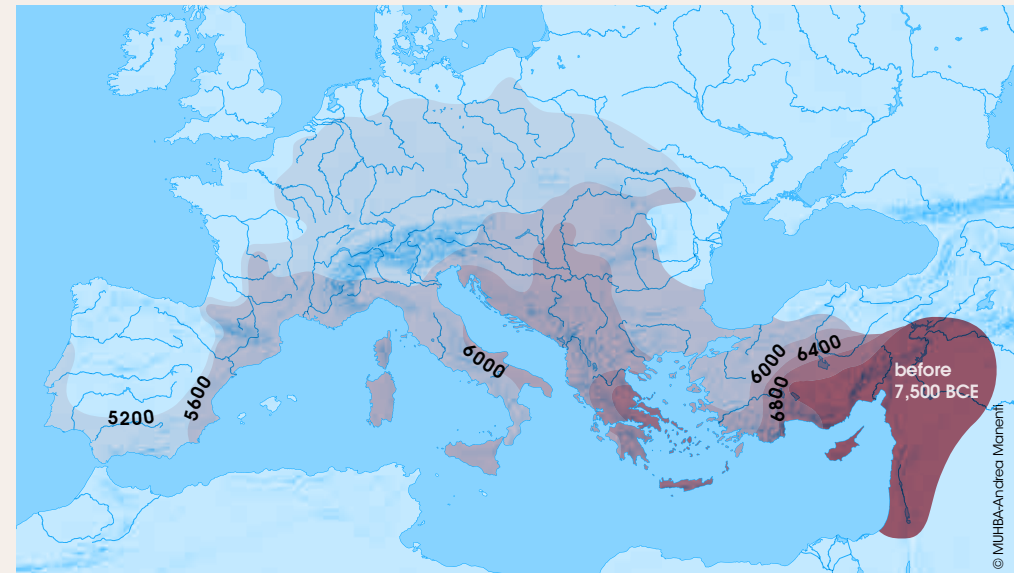
The dawn of agriculture

The diffusion of the Neolithic way of life from the first farmer and herder communities in the Middle East towards Europe was a slow and gradual process. Farming communities spread across both the land and the Mediterranean Sea in search of the most favourable terrains. They brought with them an assortment of new technologies, domesticated both plant and animal species and ideas, which was taken up far and wide.

Subsistence based on agriculture and herding favoured a lifestyle settled in villages, the creation of tools and implements to suit the new economy and homesteads, such as polished stone and ceramics, and the formation of new social relations and cultural practices, which can be seen most clearly in the funerary rites.



Canoes.
Cardial Early Neolithic (5610-5150 BCE).
La Marmotta, Anguillara Sabazia, Rome.
PM-LAZ-MNPE L. Pigorini



Spread of Neolithic culture and the imprinted pottery



Technology arriving from the east

Impressed pottery is the oldest type of ceramic and it is common all around the Mediterranean. In the western Mediterranean it is called Cardial pottery as shells of *Cardium* genus were mainly used as tools to make the decoration. It is also known by the name *Montserratina* because in Catalonia it was first found in the caves in Montserrat mountain.

Prehistorical archaeologists have been able to identify various productions of such pottery and trace its progression from the eastern Mediterranean – the site of the most ancient potteries, for example at Byblos (Lebanon) – along the shores of southern Europe and its islands as far as the coasts of the Iberian Peninsula. It is therefore one of the best indicators for closely tracking Early Neolithic expansion around the Mediterranean in the seventh and sixth millennia before the common era.

The first farmers on the plain of Barcelona

The oldest evidence we have of the farmers and herders who settled on the plain of Barcelona is from around 7,500 years ago, according to carbon dating on the tomb of an adult woman found at the site of Plaça de la Vila de Madrid (calibrated to between 5535 and 5460 years before the common era).

Settling on flat areas and on hillocks, near flowing water and not far from the sea, these earliest communities had reign over a wide expanse of territory, from the shoreline up to the Collserola mountain range and from Montjuïc to as far as the Besòs River. They were settlements with a high degree of self-sufficiency, although they were also in contact with other groups across both land and sea. This gave people and technological innovations opportunities to travel, and led to trade in both organic and mineral goods, in varying states of preparation.



Ceramic vessels with impressed decoration. Early Neolithic (6000-5000 BCE).

Provenance: MUHBA, Collection du Musée de Préhistoire des Gorges du Verdon Don Jean Courtin, Museu Arqueològic Municipal Camil Visedo Moltó d'Alcoi, Museu de Prehistòria de València, PM-LAZ-MNPE L. Pigorini, Museu de Montserrat, Museo Archeologico Regionale Paolo Orsi, Siracusa



● Archaeological site
● Isolated find

EPIPALEOLITHIC (10000-5600 BCE)
1. Morrot

EARLY NEOLITHIC (5600-4000 BCE)
2. Caserna de Sant Pau del Camp
3. Nou de la Rambla 82
4. Beates 2
5. LAV Sagrera Hipogeu
6. LAV Sagrera Josep Soldevila
7. LAV Sagrera Espronceda
8. Vila de Madrid
9. Reina Amàlia 31
10. Reina Amàlia 38
11. Marquès de Barberà 4
12. Pla Central del Raval
13. Arc del Teatre 4
14. Parc de Sant Pau del Camp

MIDDLE NEOLITHIC (4000-3400 BCE)
5. LAV Sagrera Hipogeu
6. LAV Sagrera. Onze de setembre
15. Pi 11
16. Muntaner 430
17. Gardunya
18. Espalter 1

LATE NEOLITHIC (3400-2750 BCE)
5. LAV Sagrera Hipogeu
19. Riereta 37
20. Reina Amàlia 16
21. Illa Robador
22. Rec Comtal 17

BRONZE AGE (2300-1200 BCE)
2. Caserna de Sant Pau del Camp
3. Nou de la Rambla 82
12. Pla Central del Raval
13. Arc del Teatre 4
14. Parc de Sant Pau del Camp
17. Gardunya
18. Espalter 1
19. Riereta 37
20. Reina Amàlia 16
21. Illa Robador
22. Rec Comtal 17
30. Molí de Sant Andreu
31. Font de la Mulassa
32. Arc de Sant Martí 78
33. Conjunt monumental Plaça del Rei
34. Travessera de Gràcia
35. Coves del Parc Güell
36. Camp de l'Arpa (toponym)
37. Dolmen de Montjuïc

38. Reina Amàlia 20
39. Can Casanovas
40. Estació Liceu
41. Mercat de Santa Caterina
42. RSU Santa Caterina
43. Sant Oleguer 10
44. Carrer Annibal
45. Font de la Mamella

NEOLITHIC-BRONZE AGE (5600-1200 BCE)
1. Morrot
23. Parc de la Pegaso
24. Can Nyau
25. Estació de Sant Andreu Comtal
26. Jordi Girona 2
27. Clot
28. Coves del Morrot
29. Basea 8
30. Molí de Sant Andreu
31. Font de la Mulassa
32. Arc de Sant Martí 78
33. Conjunt monumental Plaça del Rei
34. Travessera de Gràcia
35. Coves del Parc Güell
36. Camp de l'Arpa (toponym)
37. Dolmen de Montjuïc
46. Caus del Borinot
47. Prat de la Mel
48. Parc de Sant Martí de Provençals

The plain of Barcelona 7,500 years ago



The plain of Barcelona was the perfect area for the first farming communities to develop in. Set between the sea and the Collserola mountain range, the terrain was rather flat and there was a notable abundance of fresh water in streams, marshes and ponds. Furthermore there were ample natural resources from both the land and sea.

Paleobotanical studies have indicated that the vegetation was made up of sub-Mediterranean forests growing in humid and temperate conditions that coincided the Holocene Climate Optimum (5500 to 2500 BCE). From the year 2900 before the common era onwards a change in the vegetation and environment has been detected, indicating more arid conditions and fewer of the marshes and ponds seen in the Early Neolithic.

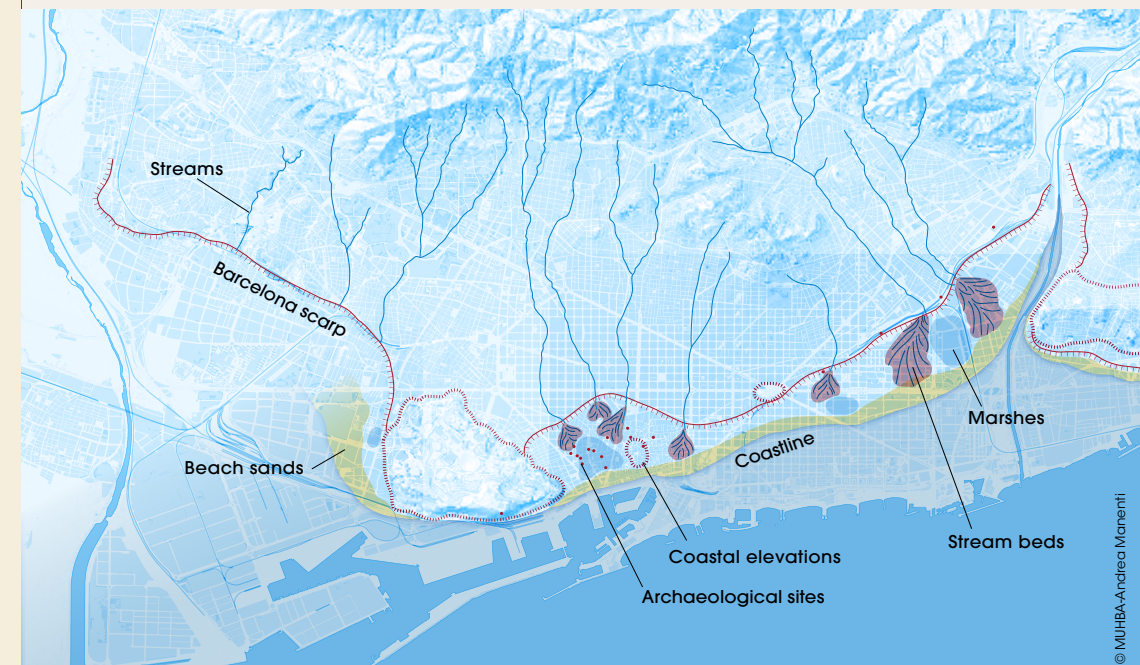
Low relief and fresh water by the sea

Among the main geomorphic landforms making up the plain of Barcelona are the Collserola mountain range, the hills of Montjuïc and Mont Taber near the coast, the foothills and the low flat area that runs to the coastline.

During the Early Neolithic the whole plain of Barcelona was a moist environment, with freshwater marshes close to the sea.

This abundance of water is one factor that helps to explain the significant human occupation of the territory. Neolithic groups showed preferences for settling near ponds, for example at Cagaell, the streams descending from Collserola and the mouths of the Rivers Besòs and Llobregat.

Reconstruction of the relief of the plain of Barcelona in recent prehistory
Hypothesis: S. Riera (UB) and R. Julià (CSIC)

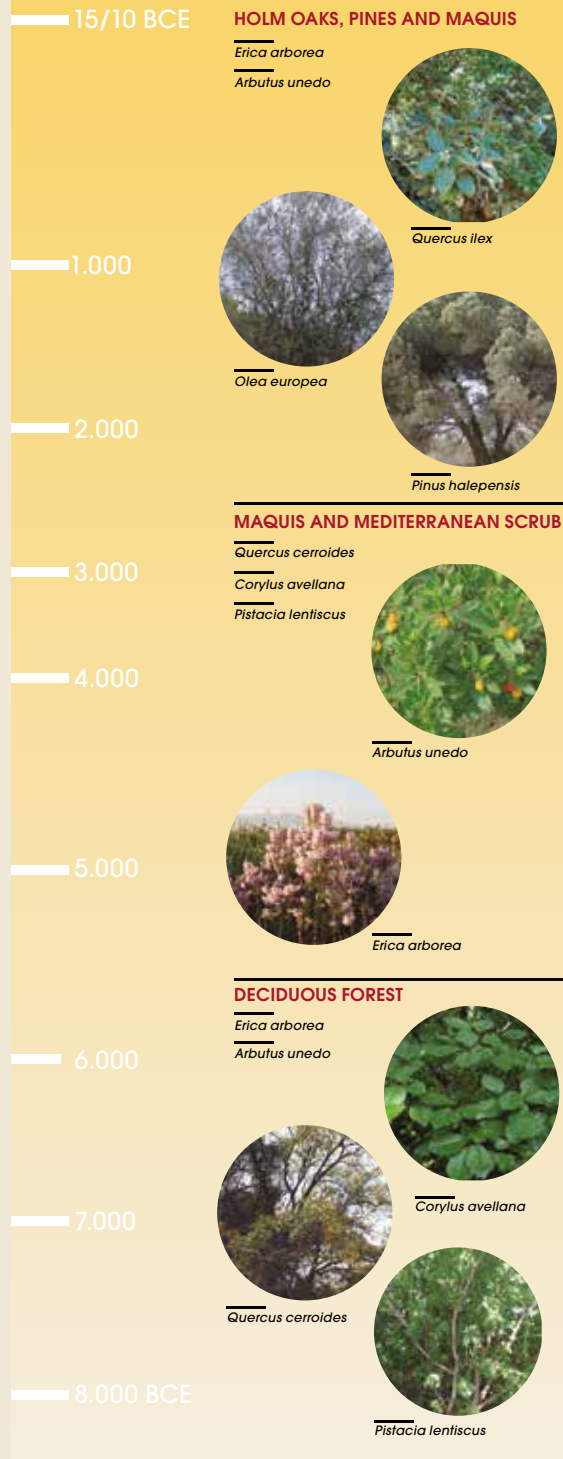


A more humid mediterranean climate

In the sixth millennium before the common era the hill of Montjuic was mostly covered in woods. On its southerly side there were oak woods and a warm-climate shrub ecosystem with mastic, heather and wild olive trees. The northern slope was wetter and woodier, with a greater concentration of oak and hazel trees. Next to streams there grew riparian woods with willow, alder, ash and elm trees. There were also small clusters of pines.

Practices involving deforestation and the use of fire to clear permanent open spaces suited to cultivation and grazing have been detected, dating back to the first fixed human settlements on the plain of Barcelona. The change towards a drier climate and the effects of human presence caused alterations in the vegetation, which are noted towards the Late Neolithic, with oak and hazel trees replaced by plants requiring less water, such as holm oak and mastic.

Evolution of the main plant communities from the Quaternary to the Roman period, according to studies of pollen and charcoal found at the archaeological sites in the plain of Barcelona.
Source: S. Riera and R. Julià



The varied wild fauna

The wooded landscape, the coastal plains and the plentiful water sources encouraged the presence of numerous wild animal species. Large and medium-sized mammals have been documented on the plain of Barcelona, mainly herbivores

such as deer, roe deer, Iberian wild goat or Pyrenean ibex, and wild boar. In addition there were smaller mammals such as foxes, badgers and rabbits. Some of these species were hunted and eaten in these settlements, making it possible to document and study them.



Main wild animal species according to the skeletal parts found at the archaeological sites on the plain of Barcelona

The protagonists



The discovery of tombs belonging to the settlements has led to the finding of human remains from more than 300 individuals, males and females of all ages. This extensive population record will provide a wealth of information once the anthropological studies currently under way are concluded, specifically those of the hypogeum at La Sagrera and the collection from Plaça de la Gardunya.

In the meantime however, completed studies of the human remains from the sites of Caserna de Sant Pau del Camp, Reina Amàlia 31, Santa Caterina and Riereta 37 already provide us with a first understanding of the characteristics of the prehistoric population on the plain of Barcelona.

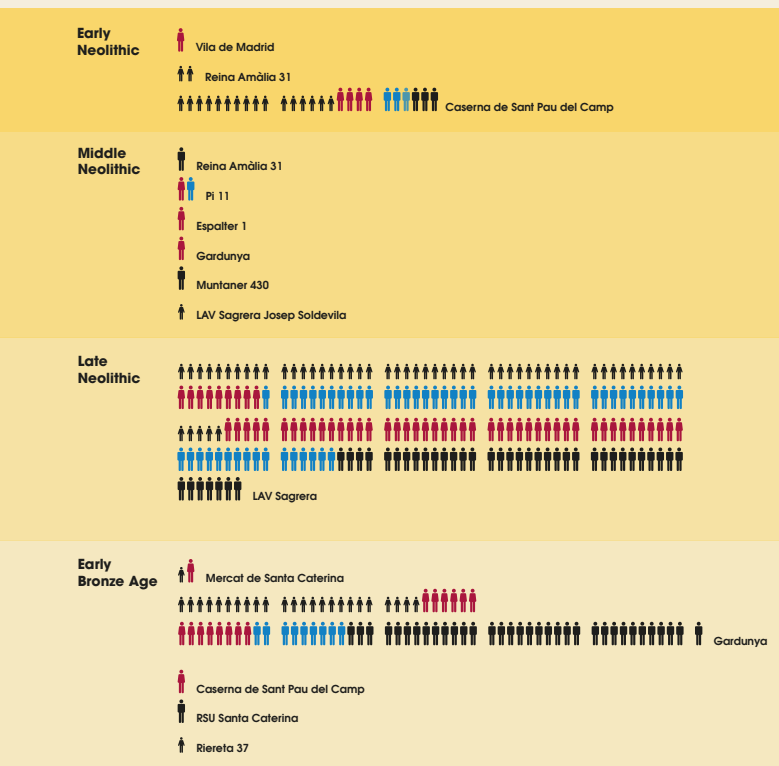
Forensic reconstruction of the face of a woman who lived in the plain of Barcelona during the Neolithic, from the study of her skull, dated between 6,500 and 6,000 years ago.
By: Philippe Froesch (Visualforensic, Montigny le Bretonneux, France). MUHBA



Characteristics of the population

The physique of the first farmers of the plain of Barcelona was typically slender and relatively short, on average five feet and three inches (1,60 m), and there were few differences between men and women. These characteristics are similar to those

found in other contemporaneous populations in the region. The death rate was typical of an ancient demography. Mortality was very high in infants but notably lower in young people, rising again among the adult population, with few people living beyond the age of 40.



Human remains studied from the prehistoric archaeological sites in Barcelona.
Source: A. Malgosa, UAB

Illnesses and disease

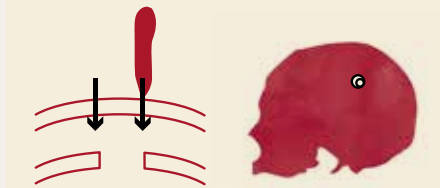
In the preserved human remains it has been possible to identify a range of illnesses as well as the imprint of muscular activity on the bones. These finds together with biochemical analyses help us understand the population's health and diet, give us an idea of their main activities and even allow us to establish mobility patterns.

The most notable feature is teeth cavities, often present in the young individuals from the site at Reina Amàlia 31 but in contrast less frequent in the community located at Caserna de Sant Pau del Camp. This difference and the results of analyses on their dental micro-striations suggest that the latter group must have eaten more sea-food and fewer carbohydrates. Particularly evident among the other health problems identified were arthritis, periodontitis, anaemia and tumours.



Skull of a young male with three instances of trepanning. Post-cardial Early Neolithic (4500-4000 BCE). Features tooth pathology with partial maintenance of primary teeth, poor eruption of incisors and marked hypoplasia, indicating nutritional stress.

A: Trepanning by incision with a burin



B: Trepanning by drilling or rotation



C: Trepanning by incision and scraping



Trepanning was commonly connected to practices in magic, religion and surgery (to treat wounds and traumatism). The first proofs of trepanning date from the Palaeolithic in Japan, from the Mesolithic in Ukraine and more widely as of the Neolithic.

In the case of Barcelona, there are three individuals with trepanning holes from the archaeological site at Caserna de Sant Pau del Camp. Post-Cardial Early Neolithic (4500-4000 BCE).

The settlements

The fixed nature of prehistoric settlements on the plain of Barcelona is evidenced by the continual occupation – from at least the Early Neolithic Age until the Bronze Age – of three areas that were especially favourable. Said areas are now recognised as El Raval neighbourhood, Mont Tàber and its surrounds, and La Sagrera neighbourhood, close to the River Besòs. These three areas were occupied as of the Cardial Early Neolithic (5600-5000 BCE), the period from which a group of silos have been found at the archaeological site of Caserna de Sant Pau del Camp. Two more periods providing abundant evidence of occupation are between 4500 and 3500 BCE, in the areas of El Raval and La Sagrera, and between 2300 and 1500 BCE, in the areas of El Raval, Mont Tàber and its surrounds, and Santa Caterina.

Preserved in the subsoil in these locations are remnants of structures that were dwellings for successive generations: cuts in the ground for various purposes; holes made for inserting poles to support roofs; and stones, beams, jambs, bricks and natural mats all used as construction and fitting materials of the huts.



Extensive villages

Carbonised oak trunks from a large hearth. Post-cardial Early Neolithic (4240-4040 BCE). Reina Amàlia 38. MUHBA

The settlements were extensive, without clear limits, and consisted of scattered huts and other structures used as dwellings. The buildings were surrounded by a large outdoor area used as a workspace for domestic tasks, where there were also supplementary facilities such as furnaces, recipients for large jugs, and underground storage silos, among others.

Some of these facilities were clearly for collective use, for example the furnaces found at the archaeological sites at Nou de la Rambla 82, at Reina Amàlia 38 and at Reina Amàlia 16, all of them showing signs of practices involving drying and preserving foodstuffs, including cereals, meat and fish.



Hearth. Post-Cardial Early Neolithic (4500-4000 BCE). Nou de la Rambla 82

The dwelling

The hut discovered at the site at carrer Reina Amàlia 31-33 is a good example of the dwellings from the Epicardial Early Neolithic (it dates from around 4700 BCE). It was a partially subterranean building, sunk to a depth of about 3.3 ft (1 m). The floor plan was oval-shaped, its walls and floor uneven, and it was large in size 42.5 x 20 ft (13 x 6 m), covering over 535 square feet (50 m²). Inside there were holes for inserting poles to support the roof, a central furnace and an oven. Outside it was associated with five pits or silos and various fire-related structures. Altogether it forms one of the oldest and most extensively documented dwelling places on the Iberian Peninsula. After it was abandoned, the area was used as a burial ground in the Post-cardial Early Neolithic.



Cut of a halfed-bury hut and outdoor storage structures. Epicardial Early Neolithic (5000-4500 BCE). Reina Amàlia 31



Grill plan structure for drying foodstuffs. Early Bronze Age (2300-1200 BCE). Riereta 37



Silo. Epicardial Early Neolithic (4700-4500 BCE). Reina Amàlia 31



Close-up of the imprint of a mat made of natural fibres on the soft clay of a ceramic vessel. Early Bronze Age (2300-1200 BCE). Espalter 1. MUHBA

Hypothetical reconstruction of the hut at Reina Amàlia 31. Illustration: A. Álvarez. MUHBA



Storage jug 75-litre capacity. Early Bronze Age (2300-1200 BCE). Riereta 37. MUHBA

The food revolution



During the Neolithic, the shift to a food producing economy and the technology to carry this out spread across the western Mediterranean the agriculture based on cereals such as wheat and barley as well as legumes, and the mixed herding of sheep, goats, pigs and cattle, aiming to gain complementary benefits from among the various species. The subsistence practices of these first agrarian communities transformed the land, opening and consolidating transport routes which in many cases were used for moving herds to exploit different grazing areas.

Controlling and managing the reproductive cycles of both plant species and domesticated animals was a major challenge for these first farmers, who sought to secure themselves a steady source of food. The productivity and yields of these farming and herding techniques is still largely unknown, but the success of the process in the long term demonstrates the advantages of strategies linked to food production which we still use in the current day and age.



Neolithic sickle (reproduction). SAPPO-UAB

White flint sickle blade. Post-cardial Early Neolithic (4500-4000 BCE). Caserna de Sant Pau del Camp. MUHBA



Neolithic small hoe (reproduction). SAPPO-UAB

Schist adze. Middle Neolithic (4000-3400 BCE). Espalter 1. MUHBA



Neolithic axe (reproduction). SAPPO-UAB

Hornfels axe. Late Neolithic (3400-2750 BCE). Reina Amàlia 16. MUHBA



1. *Hordeum vulgare spontaneum*
Wild barley, Tilazza (Turkey)
2. *Hordeum vulgare*
Domesticated barley, Jalès (France)

1. *Triticum dicoccoides*
Wild wheat, Soydan (Turkey)
2. *Triticum dicoccum*
First domesticated wheat, Tilazza (Turkey)
3. *Triticum dicoccum*
Domesticated wheat, Sadernes (Catalonia)

Cereals and legumes

Inhabitants of the plain of Barcelona were among the first humans in the northeast of the Iberian Peninsula to farm the land, as evidenced by the Cardial Early Neolithic silos at Caserna de Sant Pau del Camp, dated to between 5,360 and 5,200 years before the common era. The first cultivations documented were of barley (*Hordeum vulgare*), naked barley (*Hordeum vulgare nudum*), common/durum wheat (*Triticum aestivum/durum*), emmer wheat (*Triticum dicoccum*) and legumes such as peas (*Pisum sativum*), ervil (*Vicia ervilia*) and broad beans (*Vicia faba*).

The crops were cultivated intensively in small fields close to the settlements, claimed from nature by means of deforestation and burning of the vegetation. Cereals and legumes were farmed from the Neolithic onwards, and starting in the Bronze Age there is much evidence to show that agricultural activity became more intensive and new species such as millet were cultivated.

Provenance: Ramon Buxó Collection (Museu d'Arqueologia de Catalunya - Girona) and George Willcox Collection (Institut de Préhistoire Orientale - CNRS - Jalès)

Mixed herding

Herding was a fundamental activity for the first farming communities on the plain of Barcelona, and in its early stages was characterised by herds of sheeps and goats, pigs and cattle. This variety of complementary species within the herd tied in with a strategy to exploit muscle power and consumable goods from the animals the whole year round.

A good number of the settlements studied show patterns of differentiation in the consumption of these species: lamb was eaten tender and young whereas goats were eaten after they reached adulthood; pigs and cattle were sacrificed in a more varied manner. They made use of the meat, bones and fibres of the animals, which were also useful as a binding for transporting loads and for farm work. As yet we have little information regarding the processing of dairy products in the western Mediterranean, although this was common in the eastern Mediterranean and some parts of central Europe.

- Cereals**
- 1 *Hordeum vulgare*
 - 2 *Hordeum vulgare spontaneum*
 - 3 *Hordeum spontaneum*
 - 4 *Hordeum distichum/vulgare*
 - 5 *Hordeum distichum/spontaneum*
 - 6 *Hordeum vulgare nudum*
 - 7 *Triticum monococcum*
 - 8 *Triticum dicoccon*
 - 9 *Triticum aestivum*
 - 10 *Triticum aestivum/durum*
 - 11 *Triticum aestivum/compactum/durum*
 - 12 *Triticum baeoticum*
 - 13 *Triticum boeoticum aegilopoides*

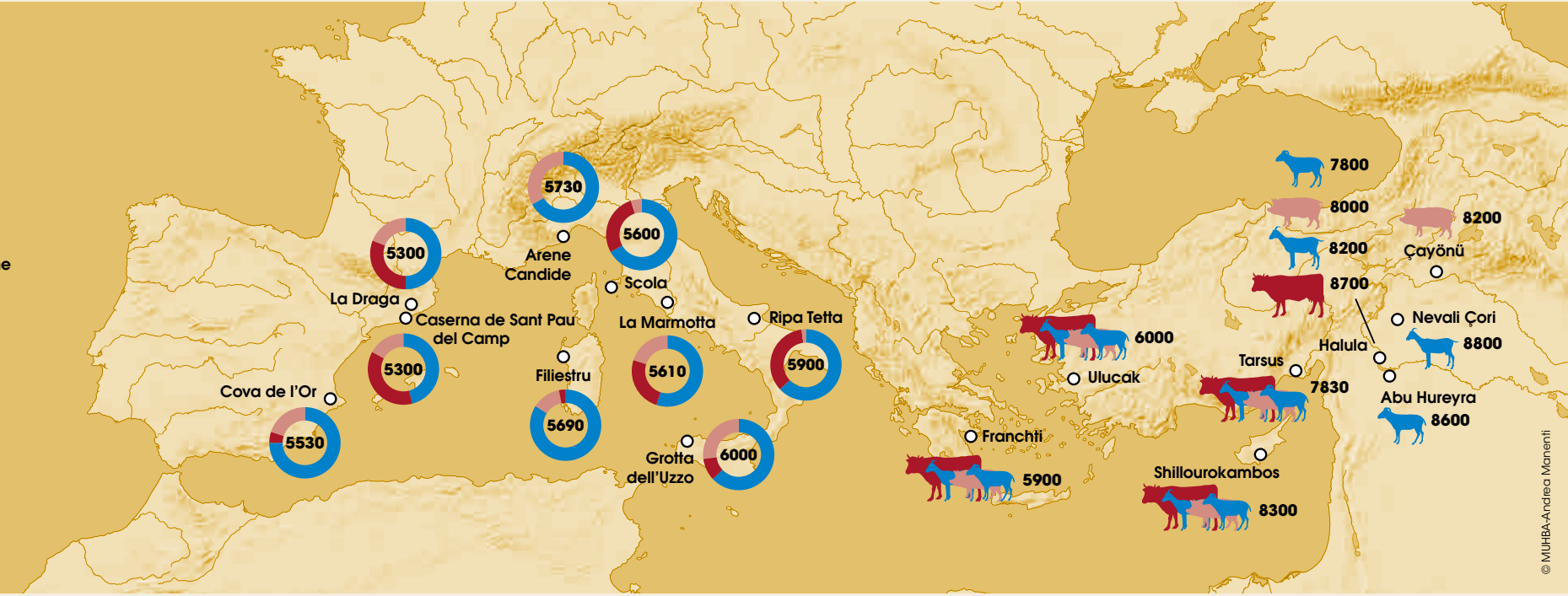
- Legumes**
- 1 *Vicia faba*
 - 2 *Vicia ervilia*
 - 3 *Vicia Sativa/Ervilia*
 - 4 *Lathyrus sativus*
 - 5 *Pisum sativum*
 - 6 *Pisum sp.*
 - 7 *Lens culinaris*

- Others**
- 1 *Vitis vinifera selvatica*



- Bovinae
- Suinae
- Ovis
- Caprinae

5300 Presence in % and time of arrival (BCE)



Main domesticated plant and animal species found in the Mediterranean and Middle East, by archaeological site and chronology

Hunting and gathering

Hunting wild animals and gathering to obtain seafood and plants provided additional nourishment, as well as being a source of raw materials to make tools and ornaments.

There is little information available on the plants gathered by the inhabitants of the plain of Barcelona, although going by the species we know, it may be assumed that they ate pine nuts and hazelnuts, as well as

acorns, cane apples, mushrooms and the like. In contrast, there is much evidence of deer, roe deer and wild boar being eaten during the Neolithic and the Bronze Age, as well as evidence of fishing at the sites at Caserna de Sant Pau del Camp and Reina Amàlia 31. The collecting of cockles and other molluscs is well-known, with evidence found at all of the prehistoric sites on the plain of Barcelona, especially at those in El Raval.



Fishing net weights from various archaeological sites of the plain of Barcelona. Neolithic-Bronze Age. MUHBA



Stemmed arrowhead (reproduction). Global CHM. MUHBA

Flint arrowhead. Epicardial Early Neolithic (5000-4500 BCE). Reina Amàlia 31. MUHBA



Arrowhead with lunate microliths (reproduction). Global CHM. MUHBA

Flint lunate microlith for arrowheads. Epicardial Early Neolithic (5000-4500 BCE). Reina Amàlia 31. MUHBA



Breccia mill and hornfels pestle.
Post-cardial Early Neolithic (4500-4000 BCE)
Late Neolithic (3400-2750 BCE).
Caserna de Sant Pau del Camp and
Reina Amàlia 16. MUHBA

Food processing

The first farming communities had various different processes for preserving cereals. One important method was to store them in underground silos, which were very common on the plain; other methods included drying processes and dry roasting. By the time the Bronze Age began, small constructions had started to appear known as grill plan structures, which were relatively sophisticated systems for drying cereals and other products. Cereals were ground in mills and with hand mills to be consumed afterward in solid or semi-liquid form.

Obtaining meat involved preparing the butchered animal, a process we have knowledge of from traces left on the bones. Proof has been found of boiling as well as cuts and fracture marks related with the task of removing the meat from the bones to help make the most of the animal and provide portions that were easier to handle. It is likely that drying and smoking techniques were used to preserve meat.



Flint fleshing knife.
Epicardial Early Neolithic
(5000-4500 BCE).
Reina Amàlia 31. MUHBA



Knife with a handle
(reproduction). Global CHM.
MUHBA

Technological know-how and a network of contacts

The new means of subsistence based on utilising domesticated plants and animals and on a settled life in villages was related to major technological innovations. From the Early Neolithic, the spread of these economic practices across the western Mediterranean went hand in hand with the introduction of new tools and techniques such as ceramics, mills and the sickle, and with finer finishes such as sharpened axes and adzes.

Furthermore, the presence in Neolithic settlements on the plain of Barcelona of materials from regional and extra-regional scope (such as basalt, variscite, jadeite and honey-coloured flint) points to a circulation and exchange of goods and ideas between different human groups, potentially including techniques, raw materials and prepared or semi-prepared products. Later on, the introduction of metallurgy would bring with it a new material for the prehistoric communities to deal with and distribute, one that was easily recyclable and highly valued. The first indications of copper on the plain of Barcelona are from around 2000 BCE.



Basalt-type stone axes and ceramic vessels found at the archaeological sites on the plain of Barcelona. MUHBA

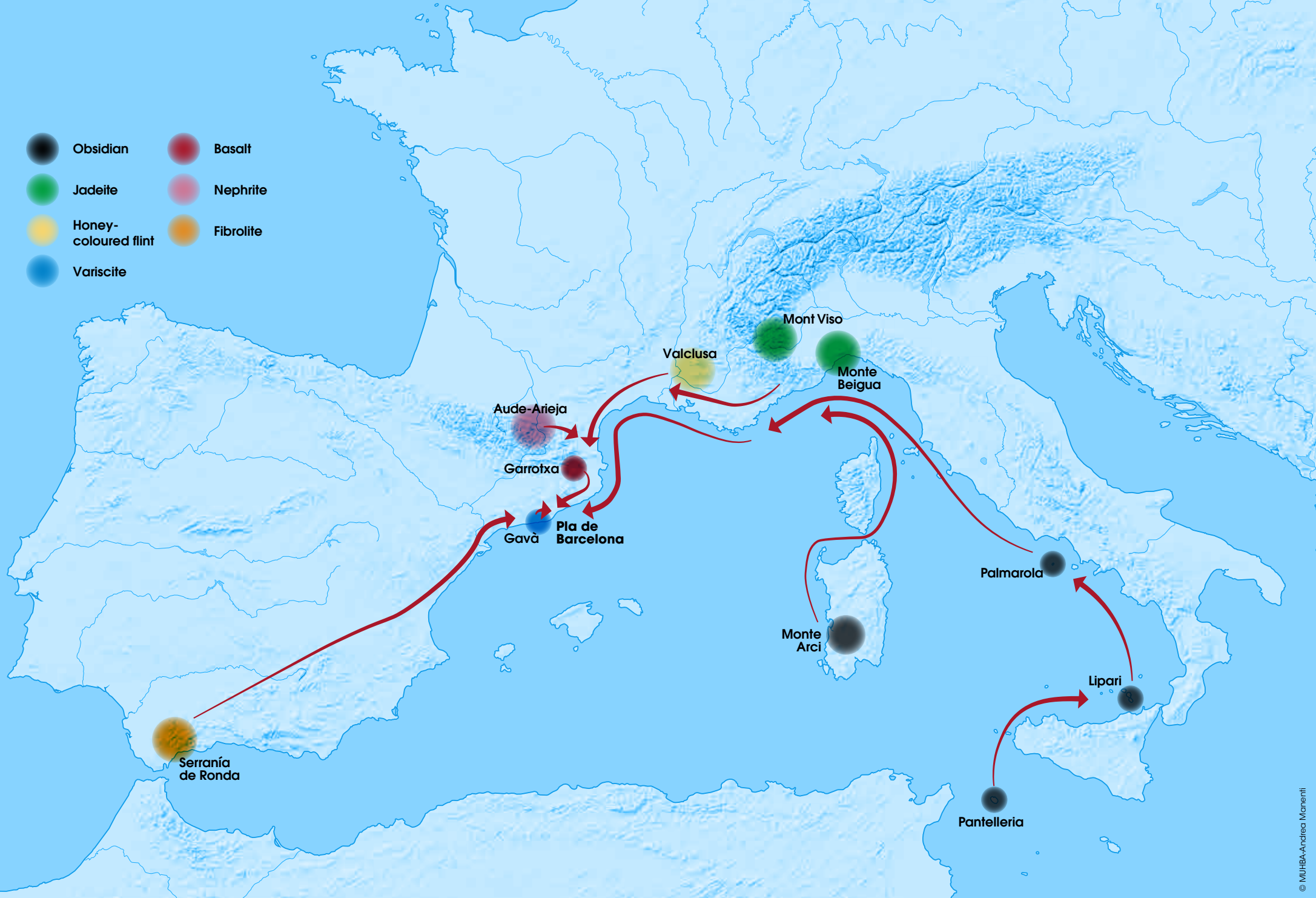
Lithic material

Processes for obtaining cut stone are complex, and called for what was then state-of-the-art technological knowledge. The first established farming communities on the plain of Barcelona undertook an intensive and prolonged exploitation of the local stone resources: quartz, chert (a siliceous rock) and above all flint and jasper.

In the case of jasper, outcrops and a cutting workshop have been found on Montjuïc, making it possible to document the whole production process, from

manufacturing to the distribution around the region. The existence of huge numbers of tools made from Montjuïc jasper is something that sets the Neolithic settlements on the plain of Barcelona apart, as this was a raw material with a very local distribution area, comprising the Penedès region, the Pre-Coastal and Coastal Ranges, and up to the Girona region. As for the other materials and stone tools, they present morphologic and technological traits that are shared with those of other contemporaneous settlements in the western Mediterranean region, from Valencia to Provence.

- Obsidian
- Basalt
- Jadeite
- Nephrite
- Honey-coloured flint
- Fibrolite
- Variscite



Places of origin of raw materials and stone tools found at archaeological sites on the plain of Barcelona



Obsidian core.
Bòbila Padró



Jasper retouched blade.
Caserna de Sant Pau del Camp



Chert bec.
Caserna de Sant Pau del Camp

Organic material

The discovery of this piece at Bòbila Padró (Ripollet, Vallès Occidental), near the River Besòs, shows that materials and objects – such as prized obsidian – reached this region from the western Mediterranean islands.



Honey-coloured flint core.
Bòbila Padró



Honey-coloured flint blade.
Reina Amàlia 16



Variscite necklace.
Bòbila Padró



Flint knife. Pi 11



Quartz sickle blade.
Caserna de Sant Pau del Camp



Variscite bead.
Caserna de Sant Pau de l Camp



Jadeite axe.
Caserna de Sant Pau del Camp



Pyrenean nephrite votive axe.
Caserna de Sant Pau del Camp



Necklace with lignite and shell beads.
Caserna de Sant Pau del Camp

Varied lithic material from the archaeological sites of the plain of Barcelona and vicinity. MUHBA and Museu d'Història de Sabadell

It was very common practice to work with bone, horn and shells to make a diverse range of objects. In this regard, techniques for rubbing, perforation and polishing were essential to achieving the specific shape of each object. Certain types of mollusc were preferred for making personal ornaments, for example bittersweet clams (*Glycymeris*), thorny oysters (*Spondylus*) and cockles (*Acanthocardia*), while the longer bones from large mammals were used to make needles, punches, small spears, bracelets and buttons.



Shell beads
Post-cardial Early Neolithic
(4500-4000 BCE).
Caserna de Sant Pau del Camp.
MUHBA

Objects were also made from wood, wickerwork and fabrics woven from plant and animal fibres. At the archaeological sites on the plain of Barcelona no such specimens remain, although there is indirect proof of the use of mats made of vegetal fibres from where they have imprinted in the soft clay of pieces of pottery.

Bracelet. Wild boar tusk.
Neolithic (5600-2750 BCE).
Conjunt Monumental
de la Plaça del Rei



Bone awl.
Early Bronze
(2300-1200 BCE).
Riereta 37.
MUHBA





EARLY NEOLITHIC

Plain ware vessels and vessels decorated with "moustache" motifs. Post-cardial early Neolithic (4500-4000 BCE). Caserna de Sant Pau del Camp, MUHBA

Ceramics

Ceramics arrived with the first agricultural settlers of the plain of Barcelona. They were mainly vessels: containers used for storing, cooking and eating liquid, semi-liquid and solid food.



Bronze needle and bronze fragments from various archaeological sites of the plain of Barcelona. Early Bronze Age (2300-1200 BCE).



MIDDLE NEOLITHIC

Fragment of vessel with tubular handle. Middle Neolithic (4000-3400 BCE). Carrer Espalter 1. MUHBA



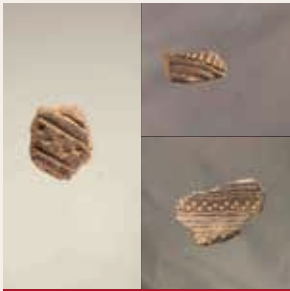
MIDDLE NEOLITHIC

Plain ware vessel. Middle Neolithic (4000-300 BCE). Pi 11. MUHBA

Variations in the technology used throughout prehistory for shaping, finishing and firing ceramics have led to the identification of cultural networks of varying size. Ceramic works produced on the plain of Barcelona share a large number of formal attributes with pieces from other western Mediterranean communities from the Early Neolithic, and with pieces from the whole of the continent, as far as the Atlantic Ocean, as of the Chalcolithic period and onward through the Metal Ages.

Metals

The incorporation of metallurgy resulted in a new technological phase. The first evidence of metal being used on the plain of Barcelona was found at the hypogeum at La Sagrera, corresponding to the Late Neolithic (2800 years before the common era). The small objects found at the archaeological sites at Riereta 37, at Espalter 1 and at Illa Robador are from the start of the Bronze Age (around 2000 BCE). Most items found were not tools for production, but in fact needles and punches related to personal attire.



CHALCOLITHIC

Fragments of vessels with decoration similar to bell beaker styles. Chalcolithic. Early Bronze Age (2750-1200 BCE). Riereta 37. MUHBA



CHALCOLITHIC

Decorated bell beaker. Chalcolithic (2750-2300 BCE). Torrent de Sant Oleguer, Sabadell. Museu d'Història de Sabadell

So far, too few metal objects have been found at the prehistoric sites on the plain of Barcelona to know if the people here made use of the area's mining resources and engaged in metallurgic activities, or if they obtained these objects through trade with other groups.



EARLY BRONZE

Vessel with incised and impressed decoration. Early Bronze Age (2300-1200 BCE). Mercat de Santa Caterina. MUHBA



EARLY BRONZE

Small jug. Early Bronze Age (2300-1200 BCE). Mercat de Santa Caterina. MUHBA

The social and cultural world

From the first simple burial pits to complex structures for hypogea, in the Neolithic and the Early Bronze Age there is evidence on the plain of Barcelona of funerary customs meant to remember and honour the dead, revealing a complex social and symbolic world. It is not known whether everyone received the same treatment, but among the cases recorded there are individuals of both sexes and of all ages.

The deceased person's position and the distribution of the material assets added to the tomb as offerings and grave goods varied over the course of time. Burials on the plain of Barcelona shared many similarities with funerary rituals documented in other parts of Catalonia and much of the western Mediterranean.



Skull of a young man with trepanning and vessel with spout. Burial 6
Post-cardial Early Neolithic (4500-4000 BCE).
Caserna de Sant Pau del Camp. MUHBA

This person's skull was trepanned, surely done using the drilling technique. There is noticeable bone regeneration, suggesting that he survived the intervention. The skull features a set of pathologies that may justify the trepanning, as well as the need to create a special vessel for him to be used in feeding.

Necropolis and graves

The advent of extensive numbers of permanent settlements aided the first appearance of true necropolises. Burial grounds tended to be close to the inhabited locations, as is the case with the two collections of tombs at the settlement at Caserna de Sant Pau del Camp. Some burials were even located in domestic areas lived in at the time, for example the child interments inside the hut at Reina Amàlia 31, something that may indicate the existence of a family-type social structure.

The existence of numerous different types of tombs shows the complexity of funerary customs. In the Early and Middle Neolithic (5500-3500 years BCE) the dead were buried in simple individual graves, while as of the Late Neolithic (around 3000 BCE) it became common practice to use collective burial structures. Good examples of this are the hypogeaum at La Sagrera, where more than 200 individuals were buried, and in particular the five multiple hypogea found at Plaça de la Gardunya, which are from the start of the Bronze Age (2000 BCE).

Grave goods and social differences

The differing funerary practices seen in the known burials reveal a social and symbolic complexity that goes far beyond the fact the deceased were given tombs. From the stone offerings at the oldest burial site to the valuable grave goods in the hypogea at Plaça de la Gardunya, there is a great diversity in the objects, including edible offerings, ceramic vessels, tools, necklaces, bracelets and buttons.

Looking at funerals also sheds light on the trading network active across the western Mediterranean. For the first time it can be seen that only certain individuals had access to products that came from afar (jadeite for example) or had special symbolic significance (as was the case with personal adornments made using variscite). The distribution of these items in the tombs –which is unrelated to the age or gender of the deceased- shows that certain individuals enjoyed a higher status, a degree of recognition which continued after their death. This early form of inequality within groups has led to the Neolithic being considered the starting point of social stratification; the beginning from which hierarchical societies would arise.



Burial in grave no. 17.
Grave goods of an infant.
Post-cardial Early Neolithic
(4500-4000 BCE).
Caserna de Sant Pau del Camp



Domesticated ovicaprid skulls.
Caserna de Sant Pau del Camp. MUHBA



Bead from a variscite necklace.
Caserna de Sant Pau del Camp. MUHBA

Necklaces with shell beads.
Caserna de Sant Pau del Camp. MUHBA

Alpine jadeite axe.
Caserna de Sant Pau del Camp. MUHBA



Reconstruction of the burial in hypogea of a woman and grave goods, at the archaeological site of Gardunya. Middle Neolithic. Image: A. Álvarez



Burial in individual hypogea.
Grave goods of a woman.
Middle Neolithic (4000-3400 BCE).
Gardunya



Vessel and bowl, one found inside the other.
Gardunya. MUHBA

Bone pendant.
Gardunya. MUHBA

Bracelet with variscite beads and another undetermined stone.
Gardunya. MUHBA

Necklace with soapstone beads.
Gardunya. MUHBA



Burial in collective hypogeum no 1.
Accompanying objects.
Late Neolithic (3400-2750 BCE).
LAV Sagrera Hipogeu

Necklace bead.
LAV Sagrera Hipogeu.
MUHBA

Ceramic vessels.
LAV Sagrera Hipogeu.
MUHBA



Burial in collective hypogeum no 3-4.
Accompanying objects.
Early Bronze Age (2300-1200 BCE).
Gardunya

Bone buttons.
Gardunya. MUHBA

Ceramic vessel.
Gardunya. MUHBA



Prehistoric archaeology in Barcelona. A 21st- century perspective

Results obtained over the last 25 years of archaeological researches have made it possible to start consistently characterising the first populations of farmers and herders who settled on these lands, which have seen intensive human occupation since the sixth millennium BCE.

There are still many unknowns to be resolved, and in the immediate future the challenges to science are to find out more about the initial processes through which agricultural communities settled and organised themselves. This will involve providing a better characterisation of the villages, the subsistence strategies, the networks for acquiring and distributing raw materials and goods, and the way the population moved around during the study of their genetic structure. All these aspects will be key to the formation of Iron Age societies.

Detail of a ceramic vessel with
cardium and *natis* impressions.
Cardial Early Neolithic (5600-5000 BCE).
Caserna de Sant Pau del Camp. MUHBA

PROJECT FIRST FARMERS BCN. THE MAJOR INNOVATION 7,500 YEARS AGO

EXHIBITION

Organisation and production: MUHBA - Museu d'Història de Barcelona, Institut de Cultura, Ajuntament de Barcelona

Project direction: Mònica Blasco i Arasanz and Joan Roca i Albert

Project coordination: Mònica Blasco and Arasanz

Curatorship: Miquel Molist Montañá and Anna Gómez Bach (UAB)
Scientific advisement: Santiago Riera (UB), Ramon Julià (CSIC), Raquel Piqué (UAB), Jordi Nadal (UB), Javier González (Global C.H.M.), Ramon Buxó (MAC), Ferran Estebanaranz (UB), Maria Saña (UAB), Ignacio Montero (CSIC)

Technical coordination: Cayetana Gomis
Technical coordination assistance: Irit Garcia
Museographic design: Àmbito Cero SL
Graphic design and layout: uauhl
Agustina Pérez Miori, Loly Ghirardi
Cartography and charts: Andrea Manenti
Illustrations: Albert Àlvarez (DBòlit)
Forensic facial reconstruction: Philippe Froesch (Visualforensic, Montigny le Bretonneux, France)
Reconstruction of tools: Javier González (Global CHM) and SAPPO-UAB

Audiovisuals:

Reconstruction of the Neolithic hut at Reina Amàlia 31

Hypothesis: Javier González
Illustrations and production: Albert Àlvarez (DBòlit)

Evolution of the settlements at the plain of Barcelona during the v, iv and iii millenniums BCE

Script: Miquel Molist and Anna Gomez
Documentació: Servei d'Arqueologia de Barcelona - Ajuntament de Barcelona
Chart design: Andrea Manenti
Production: Albert Àlvarez (DBòlit)
Lithic reduction
Script: Mònica Blasco and Cayetana Gomis
Demonstration: Antoni Palomo (Arqueolífic)
Production: Wasabi Productions

Making prehistoric pottery

Parc Arqueològic Mines Neolítiques - Ajuntament de Gavà
Hypogeum of the archaeological site at LAV Sagrera
Script: Mònica Blasco and Cayetana Gomis
Images: Globalmedia, Codex and Barcelona Sagrera
Production: Wasabi Produccions

Interactive:

Script and coordination: Servei d'Arqueologia de Barcelona - Ajuntament de Barcelona, Marc Hernandez (ICUB) and Àtics
Documentation: Carme Miró, Encarnació Cobo, Josefa Huertas, Servei d'Arqueologia de Barcelona - Ajuntament de Barcelona, Santiago Riera (UB), Marta Fàbregas and Anna Bordas (Àtics)
Design and Production: David Solà (Edittio), Àlex Moreno (Àtics), Josep Torres (CCQ)

Museographic production and installatio: Expomn, Croaquis
Graphic production and installation: Manual Color
Lighting: Haz Luz 17
Transport of originals: SIT Spain
Insurance management: Marsh SA
Insurance companies: Asedesa and Axa Art
Registry of pieces: Emili Revilla (Arxiu Arqueològic) and Núria Miró (Centre de Col·leccions)
Documentation of pieces: Miquel Molist team
Preventive conservation: Lúcia Font Pagès, Anna Lázaro Lucas and Carla Puerto
Restoration coordination: Lúcia Font Pagès, Anna Lázaro Lucas and Carla Puerto
Restoration of pieces: Mònica López Prat, Margarita Alcobé, ICNITA-Serveis Integrals en Ciències Naturals i Arqueologia: Sandra Val and Delia Eguiluz / Laia Abelló, Maria Molinas and Gemma Piqué
Pieces supports: La Subura

Translations and linguistic consultancy: Nova Traductors i Intèrprets SL

Documentation of archaeological sites: Servei de documentació del Servei d'Arqueologia, Ajuntament de Barcelona

Programmes and activities: Mònica Blasco and Teresa Macià
Education: Teresa Macià, Imma Masdevall and Cristina López
Visits and itineraries: MUHBA, Fragment
Management support: Eulàlia Cartró
Communication: Àngels Bertran
Marketing: Aurora de la Rosa
Visitor information: Carles Meia and Expertus
Security: Senén Vallès and Grupo Control
Maintenance: Enrique Alonso

Exhibited works loaned by: Arxiu Històric de la Ciutat de Barcelona, Institut Botànic de Barcelona-CSIC, Institut d'Estudis Catalans, Institut de Préhistoire Orientale-CNRS (Maison de l'Orient Méditerranéen) Université Lyon-2 (collection George Willcox), Jardí Botànic de Barcelona (Museu de Ciències Naturals de Barcelona), Musée de Préhistoire des Gorges du Verdon Don Jean Courtin, Museo Archeologico Regionale Paolo Orsi, Museo Nazionale Preistorico Etnografico Luigi Pigorini, Museu d'Arqueologia de Catalunya, Museu Arqueològic Comarcal de Banyoles, Museu Arqueològic Municipal Camil Visiedo Moltó d'Alcoi, Museu Diocesà i Comarcal de Solsona, Museu de Gavà, Museu d'Història de Sabadell, Museu de Montserrat, Museu de Prehistòria de València, Ramon Buxó, Seminari d'Arqueologia Prehistòrica del Pròxim Orient - UAB, Servei d'Arqueologia de Catalunya-Vinseum

@ Images: Albert Àlvarez (DBòlit), Arxiu Històric de la Ciutat de Barcelona, Francesc Antequera, Barcelona Sagrera, Francesc Busquets (Àtics), Xavier Carlús, Artur Cebrià, Codex, Conservation Départementale Alpes de Haute-Provence, Philippe Froesch (Visualforensic), Globalmedia, Javier González, Enric Gràcia, Karin Harzbecher, Jardí Botànic de Barcelona (Museu de

Ciències Naturals de Barcelona), Anna Marfí, Núria Miró, Musée de Préhistoire des Gorges du Verdon Don Jean Courtin - J.M. D'Agruma, Museo Archeologico Regionale Paolo Orsi su concessione dell'Assessorato Beni Culturali e Identità Siciliana della Regione Sicilia, Museo Nazionale Preistorico Etnografico Luigi Pigorini, Museu d'Arqueologia de Catalunya, Museu Arqueològic Comarcal de Banyoles, Museu Arqueològic Municipal Camil Visiedo Moltó d'Alcoi, Museu Diocesà i Comarcal de Solsona, Museu de Gavà, Museu d'Història de Barcelona-MUHBA, Museu d'Història de Sabadell, Museu de Montserrat, Museu de Prehistòria de València, Esteve Nadal, Jordi Nadal, Santiago Riera, Seminari d'Arqueologia Prehistòrica del Pròxim Orient - UAB, Servei d'Arqueologia de Barcelona, Servei d'Arqueologia de Catalunya-Vinseum, Společnost Experimentální Archeologie (University of Hradec Králové-EXCARC), Josep Subiranas, Albert Velasco

Thanks to: Jordi Aguero, Míriam Aixart, Pau Alberch, Roger Alcàntara, Ricard Arnaiz, Sergio Arayo, Paz Balaguer, Camilo Barcia, Júlia Benet, Ignacio Berguillós, Maria Bofill, Anna Bordas, Ferran Borrell, Mònica Borrell, Josep Bosch, Ramon Buxó, Joan Calpe, Dària Calpena, Sílvia Calvo, Teresa Capella, Xavier Carlús, Artur Cebrià, Philippe Chambon, Encarnació Cobo, Sergi Cubell, Marta de la Vega, Cristina Domènech, Marta Fàbregas, Joaquín Fernández, Joan Francès, Agustín Gamarra, Paola Garcia, Pau Garcia (ESCRBCC), Juan F. Gilbaja, Ivan Gironès, Karin Harzbecher, Gemma Hernández, Emiliano Hinoja, Josefa Huertas, Neus Ibáñez, Alfredo López (Mútua de Terrassa), Assumpció Malsosa, Albert Mangas, Anna Marfí, Miquel Marfí, Elena Mesas, Carme Miró, Andreu Montfort, Anna Montemayor (ESCRBCC), Estibalitz Montguiló, Arturo Morales, Iñaki Moreno, Aina Muñoz, Laura Muñoz, Esteve Nadal, Vanessa Navarrete, Mónica Oliva, Santiago Palacios, Barbara Pandurí, Irene Peix, Anna Peña, Llorenç Picornell, Joan Piera, Marc Piera, Roser Pou, Montserrat Pugès, Josep Pujades, Ariadna Reverter, Antoni Rigo, Patricia Ríos, Eduard Riubarrera, Eufrasia Roselló, Natàlia Salazar, Carlotta Sampietro (ESCRBCC), Sara Santaella, Blanca Sicilia (ESCRBCC), Joaquim Sisa, Judit Solà, Noemí Tarrats, Alba Tenza, Radomir Tichy, Albert Velasco

BOOKLET

Institut de Cultura de Barcelona
Administrative Council
Chairperson: Jaume Asens Llodrà
Vice chairwoman: Gala Pin Ferrando
Board members: Jaume Ciurana i Llevadot, Pau Guix Pérez, Joan Josep Puigcorbé i Benaïges, Guillem Espriu Avendaño, Alfreda Bergua Valls, Pere Casas Zarzuela, Berta Sureda Berna, Ricard Vinyes Ribas, Montserrat Vendrell i Rius, Isabel Olid Báez, Xavier Albertí Gallart, Martina Milà Bernard, Arantxa Garcia Terente

Collection MUHBA Llibrets de Sala

MUHBA, direction: Joan Roca
Edition: Ajuntament de Barcelona, Institut de Cultura, Museu d'Història de Barcelona

First farmers BCN. The major innovation 7,500 years ago

Text: Miquel Molist Montañá and Anna Gómez Bach
Editorial coordination and image selection: Mònica Blasco and Cayetana Gomis
General revision: Joan Roca and Jaume Capsada
Design and layout: uauhl
Agustina Pérez Miori, Loly Ghirardi
Translation and language consultancy: Nova Traductors i Intèrprets SL

First edition: July 2016
© of the edition: Ajuntament de Barcelona, Institut de Cultura, Museu d'Història de Barcelona
© of texts: their authors
© of photographs: Albert Àlvarez (DBòlit), Arxiu Històric de la Ciutat de Barcelona, Francesc Busquets (Àtics), Xavier Carlús, Codex, Conservation Départementale Alpes de Haute-Provence, Philippe Froesch (Visualforensic), Javier González, Enric Gràcia, Jardí Botànic de Barcelona (Museu de Ciències Naturals de Barcelona), Musée de Préhistoire des Gorges du Verdon Don Jean Courtin - J.M. D'Agruma, Museo Archeologico Regionale Paolo Orsi su concessione dell'Assessorato Beni Culturali e Identità Siciliana della Regione Sicilia, Museo Nazionale Preistorico Etnografico Luigi Pigorini, Museu d'Arqueologia de Catalunya, Museu Arqueològic Comarcal de Banyoles, Museu Arqueològic Municipal Camil Visiedo Moltó d'Alcoi, Museu Diocesà i Comarcal de Solsona, Museu de Gavà, Museu d'Història de Barcelona-MUHBA, Museu d'Història de Sabadell, Museu de Montserrat - Dani Rovira, Museu de Prehistòria de València, Esteve Nadal, Jordi Nadal, Santiago Riera, Seminari d'Arqueologia Prehistòrica del Pròxim Orient - UAB, Servei d'Arqueologia de Barcelona, Servei d'Arqueologia de Catalunya - Vinseum - Jordi Farré, Společnost Experimentální Archeologie (University of Hradec Králové-EXCARC), Josep Subiranas, Albert Velasco

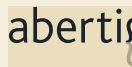
El MUHBA compta amb el suport del Cercle del Museu

Patrons benefactors













Patrons institucionals



Associats



Amics

MUHBA Llibrets de sala

- 1 Shanties. The informal city**
- 2 Connected Barcelona, transnational citizens**
- 3 Barcelona and the Jocs Florals, 1859**
4 Cerdà i Barcelona. La primera metròpoli, 1853-1897
- 5 Salomon ben Adret. Barcelona, 1235-1310**
- 6 We've got our Seat 600! The path to recovery without democracy**
- 7 The water revolution in Barcelona**
- 8 Murals in the spotlight. The paintings in the Capella de Sant Miquel**
- 9 Calicoes, 1736-1847. The origins of industrial Barcelona**
10 Barcelona, vint històries musicals
11 L'enginy de postguerra. Microcotxes de Barcelona
- 12 Feeding the city. The supply of Barcelona, from the 13th to the 20th centuries**
13 Música, Noucentisme, Barcelona
14 La bandera de Santa Eulàlia i la seva restauració
- 15 The World of 1714**
16 Fabra & Coats fa museu
- 17 Urban Monasteries in Times of War. Sant Pere de les Puel·les and Santa Clara de Barcelona, 1691-1718**
18 Música, guerra i pau a la Barcelona moderna i contemporània
19 La cartografia medieval i Barcelona
- 20 Barcelona in Late Antiquity. Christianity, the Visigoths and the City**
21 Els jueus a la Barcelona medieval. MUHBA El Call
- 22 Barcelona Haggadot. The Jewish Splendour of Catalan Gothic**
23 La casa Gralla. El periple d'un monument

