

Observing and interpreting: the Iberian world of the Museo Arqueológico Nacional in 3-D

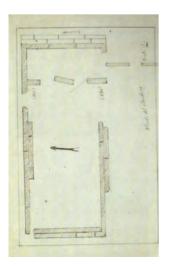


A brief recent history of the Cerro de los Santos —

The Cerro de los Santos is a small limestone hill in the district of Montealegre del Castillo, in the south-east of the province of Albacete. It is located in an area containing a communication route between the coast and the central plateau. The trees that once covered the hill were cut down in 1830, and two decades later, the remains of an Iberian temple or sanctuary were found, thought to have been in use from the 4th century BC until the Roman conquest. The first excavation was carried out in 1870, directed by Vicente Juan y Amat. As in other sites, the area had been seriously plundered, probably during the early part of the nineteenth century. Following the initial excavations, a large number of the sculptures from the site were bought by antiquarians, and ended up in private hands. The committee sent by the National Archaeological Museum of Madrid (NMA) at the end of 1871 found that many of these pieces, including the *Gran Dama Oferente*, had disappeared. Even so, several dozen pieces were bought (some of which were false) to create the first pre-Roman room at the museum in Madrid. This sculpture was purchased at a later date, in 1873, from José Ignaci o Miró, whose collection included a large number of the objects excavated from the site, which had been in the hands of the own ers of the land.

Special points of interest:

- The sanctuary of Cerro de los Santos has provided hundreds of sculpted remains, many of which are votive offerings.
- It was active from the 4th century BC until the Roman conquest.
- The Gran Dama Oferente was bought in 1873 from a private collector, together with other pieces.





Left: modern aerial view of the Cerro de los Santos (Google Maps).

Right, below: map of the Cerro de los Santos drawn by Paulino Savirón y Esteban in 1871 with a 1:1000 scale. The rectangular structure to the right of the hill is identified as a temple. Source: ceres.mcu.es

Left, below: map of the sanctuary drawn by Savirón y Esteban in 1875.



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The Gran Dama Oferente

The *Gran Dama Oferente* (Great Lady of Offering) is a limestone statue 135 cm high,

39 cm wide, and 38 cm deep. She holds a vessel in both hands, and is dressed in several tunics and a veil. She is also wearing necklaces, rings, and has an elaborate hairstyle. The rear of the statue is roughly finished, indicating she probably stood against a wall.

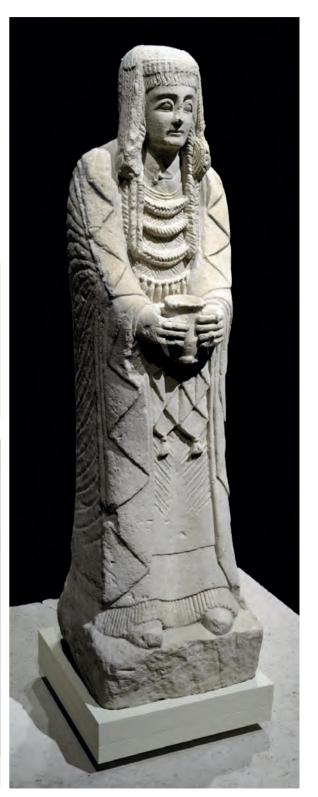
The statue has been dated to the 3rd-2nd centuries BC, and is thought to represent a highclass woman from Iberian society, judging from her clothes and adornments. The statue has been in the National Museum of Archaeology since 1873, when it was bought from Ignacio Miró together with other pieces, although this is the largest.

It is interesting to note her priestly appearance, common to other Iberian pieces found in this sanctuary, as well as her pose, seeming to offer the ceramic vessel she holds in her hands.

«Since time immemorial, in the area of Montealegre ... a small hill has been known, called Cerro de los Santos, whose name undoubtedly comes from the frequent discovery in the area of complete statues, instinctively described as saints, without having examined what they represent» (Report on the extensive excavations carried out in the Cerro de los Santos by the Episcopalian Brothers of Yecla, 1871).







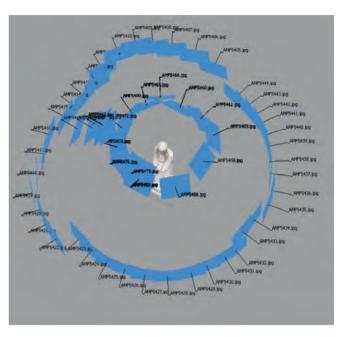
Left: other figures from the Cerro de los Santos; Right: the Gran Dama Oferente (NMA, inventory no. 3500; photos: AMF).

The Gran Dama Oferente

The 3-D model

The figure was photographed to create the 3-D model. It was not scanned because of its large size, meaning the photographic method was more advisable. The photographs were taken with a Nikon D7000 camera with a fixed focal length 55 mm lens. In this case, special lighting was not used, and the normal lighting in the room was used, consisting of several spotlights on the ceiling. The lighting was too warm, so the white balance was corrected to obtain the natural colour. No specific profile was created, or any further colour

corrections made, as the light sources had different tones. The photos were then stitched together using a com-puter programme, creating a cloud of points with coordinates in three dimensions. This cloud was then used to create a grid of triangles, on which the colour was superimposed, based on the initial photographs. The resulting model may have had artefacts or faults that had to be removed or corrected: small empty sections may remain without details, which have to be filled in manually or automatically.



The image shows the photographs taken to create the 3-D model: a total of 74 photos from different perspectives.



3-D model of the Gran Dama Oferente. This is an embedded 3-D object; by opening this document in Acrobat Reader and clicking on the model, this will be activated and allow you to rotate it, change its size, make cross-sections, etc. The model is simplified to reduce its size. To see it in full quality, we recommend https://skfb.ly/VUNT and using the full screen setting on your monitor.

Participating bodies



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CMPL ab

CMPLab is a laboratory at the University Centre of Mérida, part of the University of Extremadura in Spain. It was created as a result of a project presented to a call for Funding for Scientific and Technical Equipment and Infrastructures from the State Secretariat for Research, and began operating in 2016. The CMPLab and its associated research groups use material for documenting cultural and archaeological heritage that includes two 3-D Go!Scan scanners, and a Pentax 645Z camera.









Basic bibliography:

- GARCÍA Y BELLIDO, A. 1931: «La Bicha de Balazote», Archivo Español de Arte y Arqueología, 7: 249-270.
- LEÓN, P. 1998: La sculpture des Ibères, Paris.
- OLMOS, R. 1996: «Una aproximación historiográfica a las imágenes ibéricas. Algunos textos e ideas para una discusión», in R. Olmos (ed.), Al otro lado del espejo. Aproximación a la imagen ibérica, Madrid: 41-60.

Other 3-D models from the series







Left: the Dama de Galera, from tomb 20 of the necropolis of Tútugi (Galera, Granada), 7th century BC; centre: two-piece funerary urn from the necropolis of Tútugi, 3rd century BC; right: the Warriors' Cup, a funerary urn decorated with human figures (showing a battle between cavalry and infantry), and a hunting scene with wild boar. It has been dated from the second half of the 3rd century BC, and was found in Archena, Murcia.