



A FEMALE VOTIVE OFFERING

A brief recent history of Collado de los Jardines

This is a natural setting with a number of structures built around a rocky outcrop, which together with a large number of bronze votive offerings that have been found, form an Iberian *sanctuary*; a sacred space, with all of the symbolic and ritual connotations the Iberian communities gave to their social relationships. Also, the site is located on strategic communication route between upper Andalusia and the central tablelands of Spain. This area was frequented between the late seventh and early sixth century BC, until the second to first centuries BC. The history of this site is marked by the excavation of numerous small statues that mainly ended up in private hands or on the open market. Another series of figures was donated to the National Museum of Archaeology by a group of engineers who had been working in the area, or as a result of the first excavation projects from 1916-1918, carried out by I. Calvo and J. Cabré. They were the first to discover a terraced structure surrounded by a large platform, with steps leading up to it, organising the functions of the different spaces. The materials discovered include pottery and fragments of architectural elements.

Special points of interest:

- The outcrop is traditionally known as the *Cave of the Dolls*, due to the bronze votive offerings that were discovered.
- It is one of the three large Iberian *sanctuaries* that have been discovered to date.
- The sizes of the figures vary between 8 and 18 cm. They represent men and women, parts of the body, and also animals such as horses.



Left: bronze votive offerings from the sanctuary of Collado de los Jardines, in Santa Elena, Despeñaperros, in the province of Jaén. Both of the figures, a man and a woman, measure between 11-12 cm, and were made using a mould or the lost wax technique.

Above: the approximate location of Collado de los Jardines, (coordinates 38.388, -3.502). The site has been known since the late 19th century, for the bronze figures found amongst the rocks, and which were sought out and sold without any type of control for years.

Characteristics of the figure

Within the sphere of these votive offerings, presented by the worshippers who visited these *sanctuaries*, which have been found in their hundreds, the male and female world are well represented, and have made it possible to carry out an analysis of the social class they represent, or the religious attitudes they may be indicating. In addition to this are the unique aspects of their clothing and adornments, which serve as a *code* to help interpret this language of religious communication.

In this case, the offerings are a female figure who is standing and looking forwards, in a hieratic pose. She is

wearing a close-fitting tunic that reaches her feet, with a sweeping neckline that is decorated in the same way as the bottom hem of her dress. A shawl with decorated edges covers her body from the head down. The woman is holding the shawl in her left hand, while her right hand is raised and bent at the elbow, in a sign of greeting and presentation to the deity. It is interesting to note how much detail has been given to the woman's face, and the details of her hair, which is covered by the shawl.



An example of a bronze votive offering from the sanctuary of La Luz, Santo Ángel, Murcia.

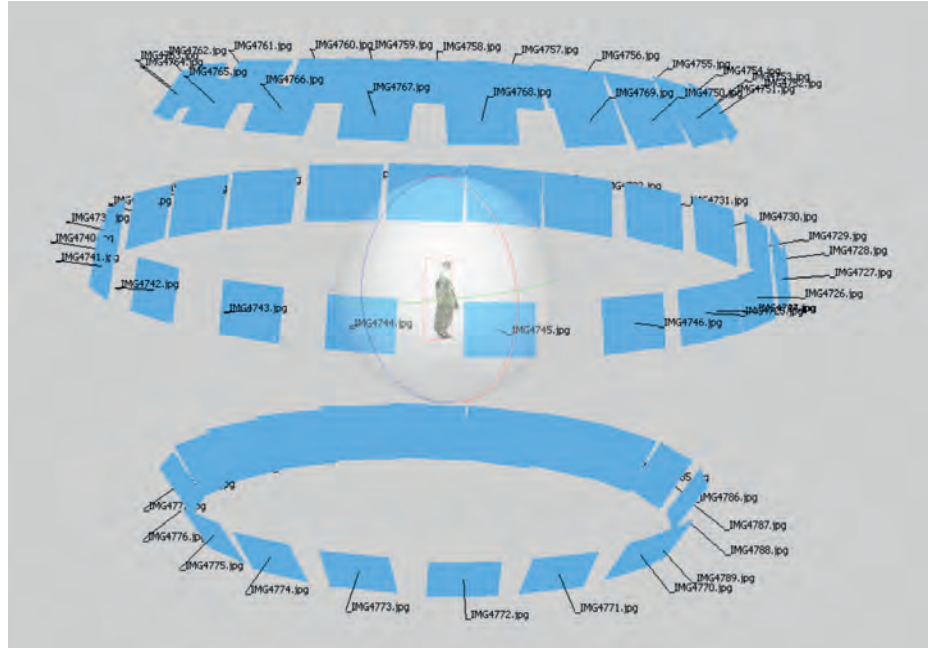
«This city was partly enclosed by natural cliffs, and partly by walls made of loose rocks, finished on only one side» (Calvo y Cabré, 1918).



Female votive offering (inventory number MAN 37708, photos: AMF).

The 3-D model

The figure was photographed using a Pentax 645Z camera with fixed focal length 120 mm macro lens. The camera automatically corrects the perspective using an internal calibration system. As the figure is small, it was placed on a rotating base and photographed from a distance of 50 cm, at f22 to obtain a sufficient depth of field. Three circles of photographs were taken, one with the figure upside down. The lighting used two LED panels with diffusers. To obtain an authentic colour, a calibrated colour sheet was photographed, and all of the images were corrected according to the specific colour profile for the session. A total of 64 photographs were taken to construct the model. The photos were then stitched together using a computer 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 image shows the photos taken to create the 3-D model: a total of 64, taken from different perspectives.



3-D model of the female votive offering. 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, visit the link <https://skfb.ly/VVAB> and use the full screen setting on your monitor.

Participating bodies

MAN

MUSEO
ARQUEOLÓGICO
NACIONAL

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GRUPO KRAKEN

ANÁLISIS DE DATOS
REPRODUCCIÓN Y MODELADO 3D



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CMPLab

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.



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Basic bibliography:

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- PRADOS TORREIRA, 1992: *Exvotos ibéricos de bronce del Museo Arqueológico Nacional*. Ministerio de Cultura, Madrid.
- RUEDA GALÁN, C. 2008: «Las imágenes de los santuarios de Cástulo: Los exvotos ibéricos en bronce de los Collados de los Jardines (Santa Elena) y los Altos del Sotillo (Castellar)», *Palaeohispanica*, 8: 55-87.

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 Arbena, Murcia.