



## Press Release

### First Bell Beaker earthwork enclosure found in Spain

**Archaeologist in Tübingen's ResourceCultures collaborative research center say ringed site may have been a place for religious rituals**

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Archaeologists from the Tübingen collaborative research center ResourceCultures have discovered an earthwork enclosure in southern Spain dating from the Bell Beaker period of 2,600 to 2,200 BCE. The complex of concentric rings may have been used for holding rituals; such earthwork enclosures have previously only been found in the northern half of Europe.

In a ResourceCultures field study, researchers sought information on how the inhabitants of southern Spain dealt with their region's resources during the Copper Age and what effects that had on society, trade relations and migration in the area. Archaeologists have known since the middle of the nineteenth century that today's Valencina de la Concepción outside Seville was at the heart of an important Copper Age settlement. In 1860, the Dolmen de la Pastora – a long megalith tomb – was first identified; it was described by archaeologists in 1868. It was the region's first big find from the Copper Age or Chalcolithic, which preceded the Bronze Age.

The nearby settlement of Valencina was supported by farming and stock-raising on the fertile coastal plain. It is Spain's largest known Copper Age settlement – of over 400 hectares. Grave goods found at the site show that the people of Valencina traded with Copper Age cultures far away: items include exotic luxury wares such as elephant tusks from Africa and the Middle East, and amber beads from northern Europe.

In return, it is likely they traded copper ore from the mountains behind Valencina. It is uncertain to what extent the city traded with areas further inland and exactly where trade routes and migrations ran. Tübingen archaeologists headed by Professor Martin Bartelheim plan to carry out fieldwork which will shed light on these little-researched issues.

The archaeologists discovered the earthwork enclosure some 50 kilometers east of Valencina. Surveying the land in August 2015, they found circular earthworks enclosing about six hectares. Excavations at the site yielded bones, sherds and jewelry; radiocarbon dating and comparative analysis confirmed the site was used during the Bell Beaker Culture (2,600 to 2,200 BCE). The Bell Beaker Culture is named after the characteristic shape of the vessels it produced.

Just what the site was used for is still a mystery. It consists of several circular trenches with entrance-like openings at regular intervals. In the center was a deep, circular hole some 19 meters wide. In it, the archaeologists found large clay bricks with burn marks on it which may have served a ritual purpose. But they did not find human remains or indications of continuous settlement after the Copper Age – suggesting the site was used intensively for a relatively short period.

The researchers believe this circular earthwork enclosure, so unusual for the region, could have been used for religious purposes. Doctoral candidate in the CultureResources group, Javier Escudero Carrillo, says “the structure is very unusual for Spain, other circular earthworks like this are only found north of the Alps; but most are more than a thousand years older than this site. The stony ground here is not good for farming, but the site is strategically located near an ancient fort on the Guadalquivir River near the ore-rich Sierra Morena mountains, where copper and other valuable minerals were mined. Trails link the site with the fertile plain of Carmona, so that we may assume it was used by many passing through. That fits well with the interpretation of a site used for religious purposes.”

Further studies will seek to discover how the site fitted into the region’s Copper Age infrastructure. Stone tools such as grinding stones and axe heads found at the site will be analyzed to discover how far away the material came from and how the tools were worked. Further information will be gathered from analyses of sediment and pollen as well as the isotopic analyses of animal bone samples, which will give clues as to the diet and lifestyle of the site’s inhabitants more than four thousand years ago.



The newly discovered circular earthwork enclosure La Loma del Real Tesoro II (near Carmo-  
na). Image: SFB 1070 RessourcenKulturen, Javier Escudero Carrillo and Helmut Becker



Copper Age pottery sherds. Images: SFB 1070 RessourcenKulturen, Javier Escudero Carrillo and Elisabet  
Conlin



Burn marks on a large clay brick found at the bottom of the circular enclosure – a cult site? Image: SFB 1070 RessourcenKulturen, Javier Escudero Carrillo and Elisabet Conlin

### Further information

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