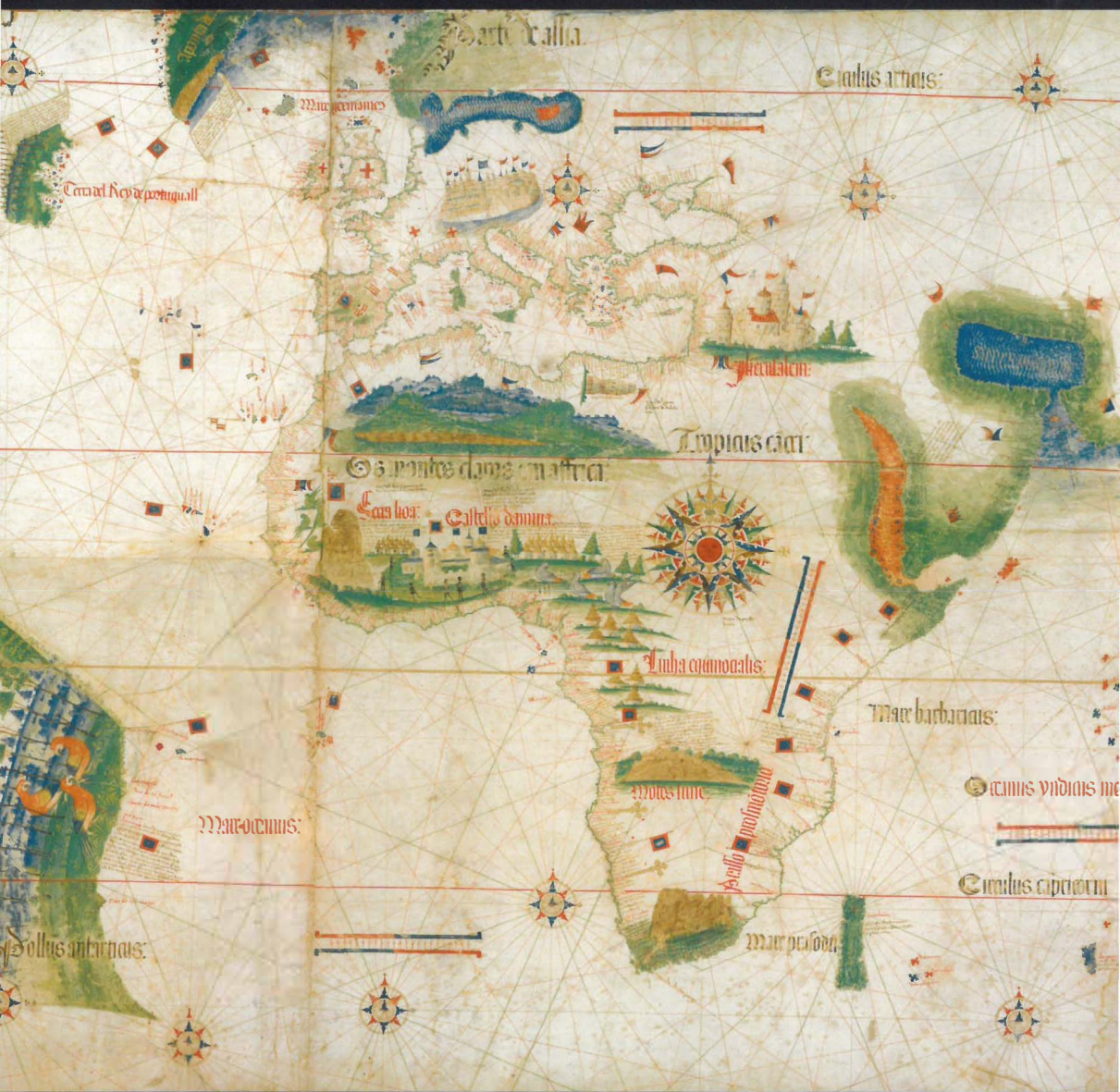
The Global History of Portugal

From Prehistory to the Modern World

Edited by Carlos Fiolhais, José Eduardo Franco and José Pedro Paiva



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2700–1800 BC
The Bell Beaker Question: Origin and Diffusion during the Third Millennium BC

The weak genetic influence of the Central European regions on Beaker populations within Portuguese territory means that the latter, whether due to their remote geographical location or, above all, their earlier chronology, did not receive any input from this diffusion, thus affirming that they are the direct descendants of their Neolithic ancestors.

Bell Beaker production, which took place between approximately 2700 and 1800 BC in the territory which is nowadays Portugal, is particularly well-known for its ceramics, whose most characteristic shape gave rise to the name for this set of products, which also includes ornaments, clothing and copper weapons. The most distinctive form of these vessels is the so-called Maritime or Standard Beaker, shaped like an inverted bell and decorated with stippled horizontal bands, filled in with alternating oblique lines. The term "Maritime" derives from the fact that its European-wide diffusion probably occurred by sea, via coastal voyages.

The important 1977 study by Richard J. Harrison, a professor at Bristol University, had been unable to take fully into account the Dutch model which defined research into the origins and diffusion of Bell Beaker production within Europe during the 1980s and 1990s. According to this model, Maritime beakers would have evolved out of Dutch Corded Ware, namely vessels decorated by pressing lengths of cord horizontally into the fresh clay, a perspective later rejected by Laure Salanova. In fact, the radiocarbon dates meanwhile obtained showed that the corded bell beakers in Holland

were, in general, more modern than the oldest Iberian Maritime beakers. The earlier dating for the latter was recently confirmed, reinforcing the classic theory which had been put forward via different channels since the beginning of the twentieth century. In 1913, Hubert Schmidt first drew attention to the importance of the Iberian Peninsula with regard to the origins of Bell Beaker vessels, soon followed by Pedro Bosch Gimpera, who hypothesized that they had spread throughout Europe from Iberia. This inspired Alberto del Castillo Yurrita in his renowned overview *La Cultura del Vaso Campaniforme (Su Origen y Extensión en Europa)* (1928). Many years later, the author affirmed that bell beakers had always spread by sea routes – via the Atlantic and the Mediterranean – and that this was due to the copper industry. Moreover, he anticipated the importance of future excavation work in settlements in the Tagus estuary region in terms of resolving the question of the origin and chronology of the Bell Beaker culture.

This theory was gradually refined, in particular by Edward Sangmeister's "reflux" theory described in his study *Exposé sur la Civilisation du Vase Campaniforme. Les Civilisations Atlantiques du Néolithique à l'Âge du Fer* (1963), which was, to some extent, corroborated by Richard J. Harrison's dual model presented in *The Bell Beaker Cultures of Spain and Portugal* (1977). The model, which recognized two different origins, one in the Iberian Peninsula and the other in Central Europe, was recently supported by the DNA results for European Bell Beaker populations.

Returning to the classic theory, Laure Salanova argued that the origin of the Maritime Beaker was the Tagus estuary, as this was the European region in which the greatest concentration of this type of product can be found, given that this vessel corresponds to the only pure form of Bell Beaker production which she defines as the standard style. In this context, the significance of the radiocarbon dating becomes evident, indicating its true age in the said region, particularly in the case of the prehistoric settlement in Leceia (Oeiras), since it establishes the emergence of the Bell Beaker culture in the Tagus estuary region at approximately 2750 BC, a time in which Maritime Beakers already coexisted with regional Bell Beaker production and an earlier tradition of ceramic production.

DNA analyses on a European scale of the skeletal remains of Bell Beaker populations from the Tagus estuary region have confirmed that they are directly descended from their local ancestors. Therefore, this region is indirectly confirmed as the origin of the Maritime Beaker, from whence it expanded along the Atlantic coast, where Brittany was a key reception centre, until the amounts become insignificant in more eastern regions such as the Rhine Valley and the Netherlands.

The specific incidence of Maritime vessels in the Tagus estuary region cannot be separated from the wealth and use of fertile soils in this region, which resulted in very productive agriculture that generated surpluses requiring transregional circuits for trading. Hence, the agricultural importance of the region, as verified in other areas in Europe, would explain the abundance of examples of bell beakers in the estuary, in far greater amounts than in regions where there was copper, thus challenging the traditional Bell Beaker-copper industry pairing. This conclusion is confirmed in Portugal by analyses undertaken in the copper regions of the Upper and Lower Alentejo, where the Bell Beaker presence is limited, and it is even more marked in the Algarve, where it is only residual, despite the wealth of copper found there.

Moreover, in the Tagus estuary zone the hypothesis that Bell Beaker products correspond to prestige goods is not acceptable. In fact, they sometimes comprise all

the decorative pottery found both in open Bell Beaker settlements (Freiria, in Cascais) and simple farm units (Leião, in Oeiras; Monte do Castelo, in Oeiras) where the possibility of a social hierarchy cannot be admitted. Within Bell Beaker ceramic production, the exceptions are the Maritime beakers, whose social value or functions, for authors such as Laure Salanova, "extend far beyond simple everyday use". In fact, the existence of two operational chains leading to different Bell Beaker products – the Maritime Beakers and the cruder vessels with technically and thematically different decorations – indicates the presence of different craftsmen. How can their coexistence be explained? What are the reasons for this? Since 2014 both questions have been fully explained by the author of this text. Firstly, the results of the radiocarbon analyses show the coexistence, since the second half of the third millennium BC, of Maritime Beakers and cruder recipients, usually large storage vessels and highly decorated broad flat slips known as Palmela bowls. On the basis of the survey carried out at the time, it was concluded that Maritime Beakers were concentrated in fortified settlements, whereas the cruder products are associated with open settlements or simple small farm units such as the ones mentioned above. Thus, bearing in mind that the differentiated distribution of Bell Beaker products has no chronological significance, since the datings have proved the coexistence of fortified settlements, open settlements and small farm units throughout the second half of the third millennium BC, it may be concluded that the Bell Beaker elites, who were based in fortified settlements, were responsible for managing the territories and used the more sophisticated (Maritime) products in their daily life as markers of their social status, whereas agriculture and livestock production, made viable by the good soils in the region adjacent to the Tagus estuary, were reserved for the socially less important communities, distributed in countless small farm units and settlements scattered around the hillsides. With regard to the absolute chronology provided by radiocarbon dating, the oldest chronologies in the Peninsula and even in the south-west of France may date back to around 2800 BC, although there is still some uncertainty with regard to this, in contrast to the chronology obtained for one of the huts in the settlement in Leceia (Oeiras), indicating that the Bell Beaker culture was already fully established in the Tagus estuary region by around 2750/2700 BC. The chronologies for the Ciempozuelos Bell Beaker culture, a Bell Beaker group characteristic of the Iberian Meseta, are more recent, and are reliable from 2600/2500 BC. This is therefore consistent with the influences observed by Edward Sangmeister associated with a second Bell Beaker period which originated in Central Europe. The Central European influences were recently confirmed by DNA results for approximately 280 individuals, covering the whole of Europe. With regard to the five individuals from Portuguese territory who were analysed, three of whom came from the Verdelha dos Ruivos cave in Vila Franca de Xira in the Tagus estuary, dating from between 2700 and 2300 BC, and the remaining two from the Galeria da Cisterna in Torres Novas (2500–2200 BC), the complete absence of any genetic contribution from Central European populations can be verified. However, the Central European contribution can be identified in certain populations within Spanish territory, some corresponding to the Iberian Meseta. This reality can therefore be related to Edward Sangmeister's hypothesis, placing these populations within an already advanced period of Bell Beaker culture.

Hence, cross-referencing genetic data with the absolute chronology obtained from the samples that were analysed has proved that the Bell Beaker influences from Central Europe were only felt from 2500 BC onwards, with the rapid and widespread

penetration of individuals from the east into the west, particularly in England. The weak genetic influence of the Central European regions on populations within Portuguese territory means that the latter, whether due to their remote geographical location or, above all, their earlier chronology, did not receive any important input from this diffusion, thus affirming that they are the direct descendants of their Neolithic ancestors. This conclusion, together with their earlier chronology, constitutes an additional argument to support the origin of the Maritime beaker in the Tagus estuary and its subsequent diffusion by sea at a time which predates the major movement of populations from Central Europe recently revealed by genetics.

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