

# SUNDIALS

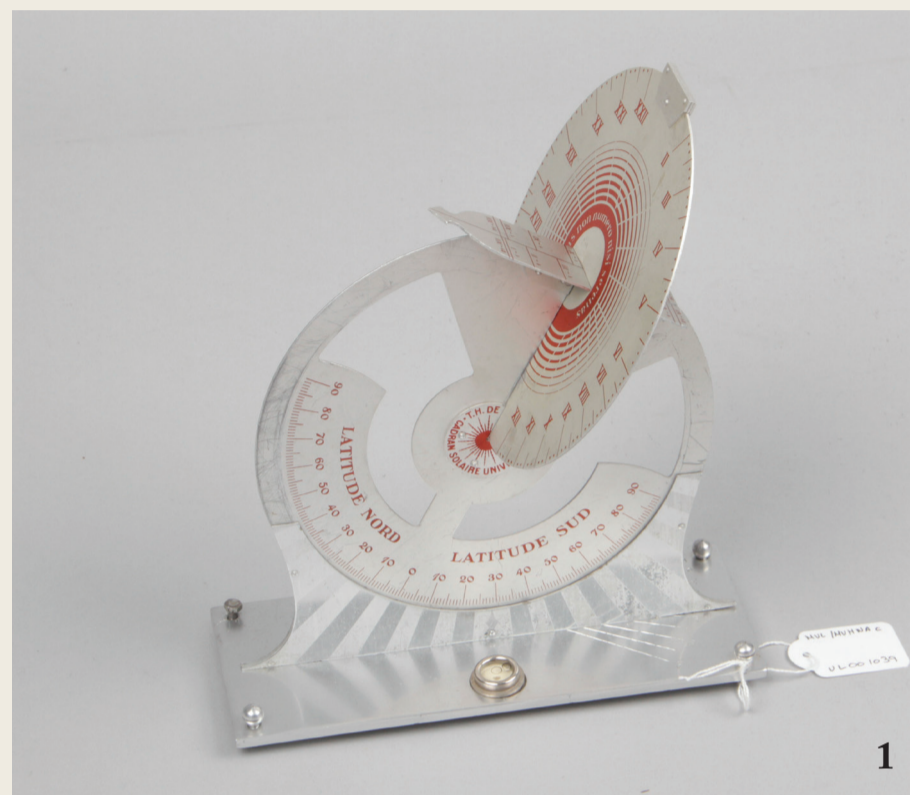
As we celebrate the European Year of Cultural Heritage, it matters to aware and promote the Portuguese heritage that is so often unnoticed. For this reason, May is dedicated to one of the most magnificent scientific objects that came up before we could talk about Science. For at least 3 000 b.C, at Mesopotamia, and possible in another places of the World, in a harmonious cross between astronomy and mathematics, the most ancient instrument to measure time was born: the Sundial.

Composed of a pointer – the gnomon – and a graduated base – the display -, the sundial indicates the hours through the shadow's movement of the gnomon, on which sunlight beats down and is projected on the display. Possible to be found everywhere, from convents and churches, villas and gardens, houses and palaces to public spaces, sundials must have arrived to Portuguese territory during the Roman conquest. Usually they are of great size and integrated into facades and walls, but there are also portable models. The main types of sundials are horizontal and vertical, according to the display is horizontal or vertical.

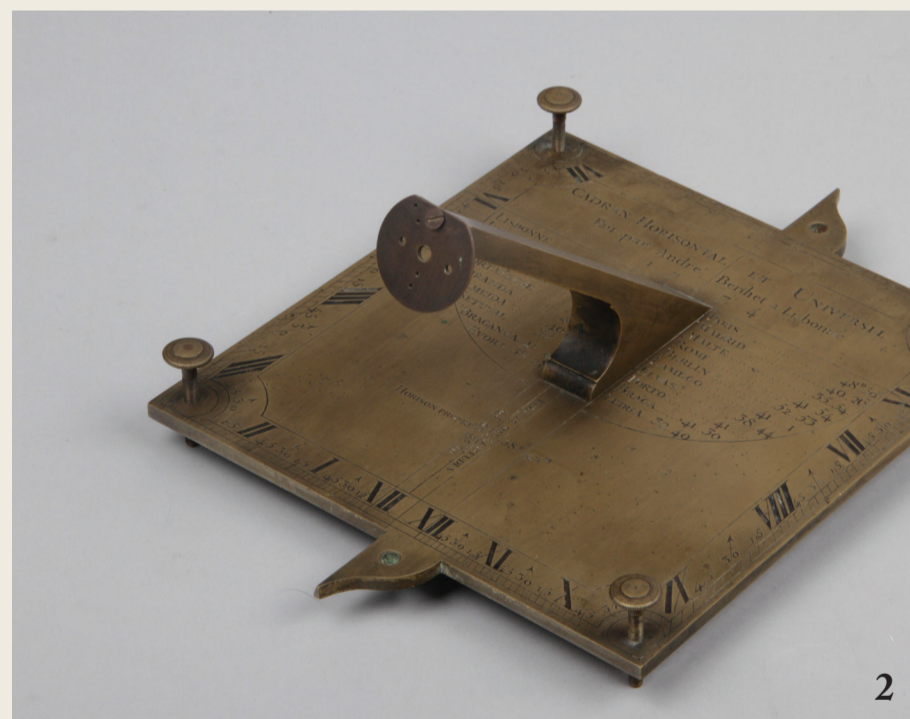
These instruments evolved trough time to more sophisticated items, the majority being truly pieces of Art. On display, you may find two types of Sundials:

An Universal sundial (1), T.H. de Lange, from 20 th century. It is ademountable model, with a compass, adaptable to both hemispheres and to the latitude of the place where the reading is meant for. The compass allows the orientation of the gnomon according to the north-south axis in a way that the display stays parallel to the equador.

An horizontal (2), dated from 1774, designed for the latitude of Lisboa by André Berthet, a Lisbon's watchmaker. It is likely that Berthet had a connection to Real Fábrica de Relojoaria, founded in Lisbon on 1765 by Marquês de Pombal at Amoreiras/Rato area, the first of its kind in Portugal.



1



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