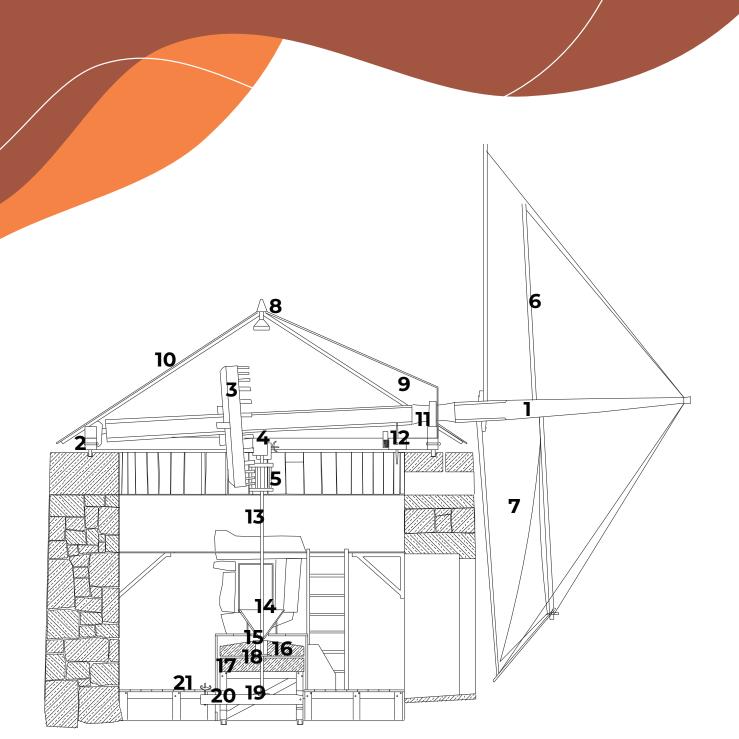
# WINDMILL

## CARRAZEDA DE ANSIÃES



#### Windmill of Carrazeda de Ansiães

It was built in the beginning of the 20th century and worked for about a decade, grinding the wheat produced in the fields surrounding the village of Carrazeda. In 2012 it was restored by the municipality and integrated in a program of guided tours with a pedagogical, cultural and heritage character.

The Windmill looking down upon the village of Carrazeda has always been part of the popular imagination that over the last 100 years has become used to seeing a very old isolated structure over the several rocks that flank the mill, wondering about its origin and purpose. Among today's elderly population, there is no memory of the time when it still worked. In the early 80s, however, important testimonies were collected, among the older inhabitants of the village, which today help us to understand a little of the history.

#### Contextualization

It was the year 1900 when Damião Gonçalves Neves, originally from Oporto, decided to build a windmill that would replace the old watermill located on a place called "Veiga", along the road to Fontelonga. The windmill worked for about a decade, grinding the wheat from the surrounding fields, which the women carried on their heads along the narrow country road that climbs up through the immense rocks circumscribed in it. Here, Damião Neves and his assistant turned grain into flour, which was then bagged and used to feed the growing population of this village of Trás-os-Montes. Little is known about why this structure stopped working and there is speculation about the difficulty of operation and the unpredictability of the wind. It is however certain that it probably was later replaced by the steam engine fed by coal and the diesel engine.

#### Windmills are made up of:

Tower – Its function is to house the transmission and grinding apparatus and to support the rotating shaft (10) which holds the mast and sails. This one-floor circular structure was built in granite masonry with apparatus in dry-stone walls. The tower has a door facing north and two wide windows to let in the light.

External motor apparatus – It captures the wind via the sails, thus setting in motion the internal grinding mechanism. It is comprised of a wooden rotating shaft, a cone-shaped cover, finished at the base with a wooden ring, the rafter (2), where the wheels are inserted. The wheels move over an open slot in the last row of stones of the tower structure, the granite rafter. The wooden rotating shaft allows the windmill's sails to "get under the wind", maximizing the use of wind energy. In this cover there is a heightening over the point where the mast extends outside (1), the truss (9). The mast supports the eight rods (6) to which the four triangular sails are attached (7) These cause the mast and the gears (3), the cog wheel inside the mill, to rotate.

Transmission and grinding mechanism – It transmits movement to the grinders, thus grinding the cereals. The rotation of the cog wheel causes the gear (5) to rotate, which is supported on a metal shaft (13). On the end of the gear is a mill stone (18) that supports the grindstone (16) and makes it rotate on the nether millstone (17), grinding the cereals. The cereals are thrown by the miller into the hopper (14) and slide down the chute (15) to the eye of the millstone and come out through the space between the two millstones in the form of flour. In the mill there is a system that regulates the distance between the two millstones, the crossbar (20), making the flour produced more or less fine.

### Legend:

- 1 Mast
- 2 Rafter
- **3** Cog
- 4 Bridge
- **5** Gear
- Rod
- **7** Sails
- Spider
- 9 Truss
- 10 Shaft

- 11 Blocks
- 12 Winch
- 13 Spindle
- 14 Hopper
- 15 Chute or trough
- 16 Drind Stone
- 17 Nether millstone
- 19 Bearing Club
- 20 Crossbar 21 Aleviatur
- 18 Mill stone



Typology – Windmill with fixed tower and rotating shaft that has a system of traction through an interior winch.

**Chronology** – Early 20th century construction.

#### **Tour appointments**

Interactive Tourism Store CITICA square Phone: (+351) 278 098 50' Email: lit@cmca.pt



