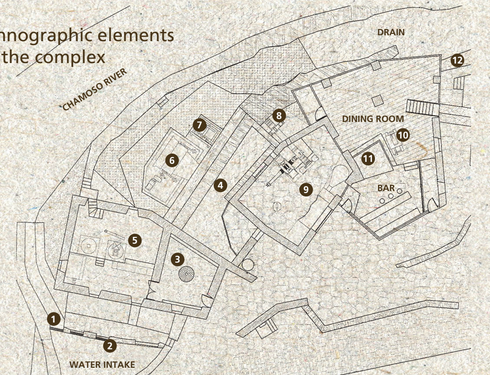
Ethnographic elements of the complex



1. FISHERY
2. SLUICE GATES
3. GRAIN AND FLOUR STORE
4. TANK
5. MILL
6. TURBINE
7. HYDRAULIC SHARPENING STONE
8. RODICIO MALLET
9. MALLET
10. HYDRAULIC SAW
11. RODICIO SAW AND WATER PIPE
12. BLACKSMITHS' LOCKERS


Rodicio


Water intake


Crane

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Plan de Recuperación, Transformación e Resiliencia

TERRAS DO MIÑO BIOSPHERE RESERVE

MAZO DE SANTA COMBA

DEPUTACIÓN DE LUGO
TERRAS do MIÑO LUGO RESERVA DA BIOSFERA
unesco Red Española de Reservas de la Biosfera

Location

In the heart of the Terras do Miño Biosphere Reserve, in the parish of San Pedro de Santa Comba, in the municipality of Lugo and on the banks of the River Chamoso, we find an idyllic spot where we can visit the Mazo de Santa Comba. It is an ethnographic complex, an example of popular Galician architecture that played an important role in the economic and social development of the rural life of the inhabitants of the area. It is made up of several buildings built by hand, in which water is used as the driving force to operate the mechanisms of the water mill, the mallet, the saw and the sharpening stone.

History

Since the 18th century, the River Chamoso has been a place of settlement for water mills and blacksmiths, as can be seen in the documents of the census carried out by the Marquis de la Ensenada at the request of King Ferdinand VI.

The whole complex was of great importance at the time, as many farming implements were made there, such as sickles, which were soon very popular among the peasants of Castile and Leon and among the Galicians who came to harvest crops in that autonomous region, due to their high quality. All the tools produced were branded with the Xota Tres Estrelas stamp.

The mazo was an important meeting point for the locals who came to grind maize, wheat or rye grain to obtain the flour with which to make bread and other foodstuffs that formed the basis of their diet.

Water inlets

Forge and mallet

Mallet

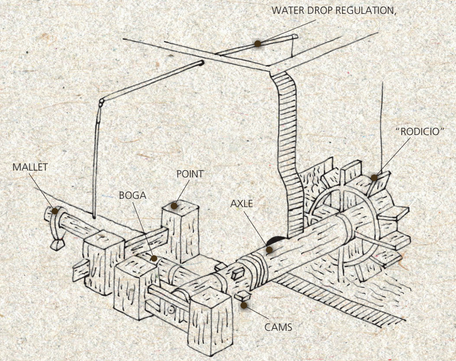
The dam and water inlets

The water from the River Chamoso is dammed (by means of a weir), and from there, it is channelled to the four supply outlets; two at the water mill and another two at the mallet. The dam is constructed of shale stone wedge-shaped at its shallowest part. In order to allow the fish to overcome the barrier of the dam, an upstream ladder has recently been built, consisting of small pools with drainage channels placed consecutively at different heights, so that the fish can overcome the difference in level of the dam during the spawning season. Using the weir and the four jaws mentioned above, the "bearings" are activated, which set all the mechanisms of the mallet, the saw and the sharpening stone in motion.

Work on the mallet

The mallet was operated by about 30 blacksmiths and their apprentices, who were organised in two shifts. Most of them were from the parish of San Pedro de Santa Comba, although there were some from the neighbouring parish of Lajosa or A Pobra de San Xiao. In order to reach the mallet, they used carts pulled by cows to transport the coal that arrived in Lugo by rail, most of which came from the Asturian and Leonese mines. The iron and steel with which they made the tools was bought in bars that they cut according to the needs of the piece they were going to make. The handles were made of elm and poplar wood.

The apprentices who helped the blacksmiths were mostly young boys between 12 and 14 years old who took 2 or 3 years to learn the blacksmith's trade. While the blacksmith worked the iron on the mallet, the apprentice heated another piece in the forge and regulated the water flowing into the "rodezno" that drove the mallet.



Operation of the mallet

In the same way as in the mill, the "rodicio" starts the mallet's operating mechanism by driving the axle or shaft in which 4 wooden cams are inserted, placed with the same spacing between them to produce a rhythmic movement in the mallet. The mallet is a large hammer made of a wooden handle with an iron mallet at the end that weighs about 100 kg. To make the tools, it was essential to melt the iron with steel in the forge and then shape it with the force of the mallet. Heat is an essential element that was obtained from the combustion of coal; to stoke it, large bellows were used, which over the years was replaced by the water pipe. The water pipe generates an air current as the water flows from the "banzado" through a narrower channel. This causes the effect explained by the Italian physicist Giovanni Venturi, based on Bernoulli's principle.

Windmill

Saw

Sharpening stone

The work in the water mill

The work in the water mill was essential, as it was necessary to grind the grain in order to obtain the flour with which to make bread, which was the main source of food for the families.

The miller was the one who started the mill to grind the "ferrados" of grain that the users brought to grind. The "ferrado" was the unit of measurement used at the time, and corresponded to the amount of grain that would fit into a wooden box whose measurements were fixed. The miller was paid the "maquia", which generally corresponded to one-sixth of the "ferrado"; over the years, the "maquía" was replaced by a sum of money that had to be paid to the miller for milling.

As well as being fundamental for the economic development of the towns, the mills were a meeting point for the people. This is why they represent the most characteristic element of Galicia's ethnographic heritage.

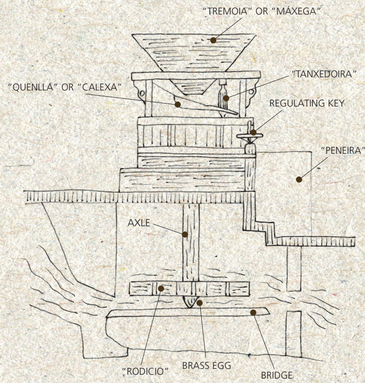
Operation of the saw

The saw is another element found in the ethnographic complex, driven by the hydraulic force of the water that reaches the "rodicio", causing the saw to move.

The saw consists of the blade, a toothed metal element that moves back and forth in a back-and-forth motion. To facilitate the cutting process, there is a table or trolley that moves in the direction that is convenient during the work, in order to regulate the thickness of the slabs, thanks to guides fixed to the floor.

Operation of the sharpening stone

The sharpening stone is also driven by the movement of the "wheel" which rotates the sharpening stone, enabling the tools made on the mallet to have a good cutting edge.



Operation of the water mill

Thanks to the force of the water from the river, the "rodicio" starts the water mill's mechanism by turning the shaft or tree in which the upper millstone ("moa"), which weighs around 1,500 kg, is fitted. This stone rotates on another stone that is fixed, which makes it possible to grind the grain that falls from the "tremoia" or "móxega", which is an inverted pyramid made of wood where the grain is poured, which falls by its own weight into the "quenlla" or "calexa". The grain enters through the eye of the "moa" in a uniform way thanks to a piece called a "tanxedoira", which transmits a vibrating movement to prevent it from getting stuck. The "moa", in turn, is covered by a piece of wood called a "tambor", where the flour is collected and sent to the "peneira", where the flour is separated from the "farelo" by means of a drum covered with a cloth.

The thickness of the flour was determined by the distance between the "moas", which could be adjusted by means of the spillway tap and the thickness of the sieve placed in the "peneira".