Processing of food plants in the Iron Age

Iron Age
3rd century B.C.-1st century A.D.

Certain plants in our diet can be eaten raw, with no manipulation whatsoever, but others — such as grains — need a whole series of tasks first. Once the harvest is collected and dried, the next step is threshing, which separates the wheat from the chaff. Afterwards, a rough sifting is done and then they are winnowed in order to discard the smallest bits. They are then cured and stored in containers, subjected to a finer sifting and, finally, milled into flour. As a counterpart to the long process, grains (and nuts as well) can be stored for years, which allows food stocks to be stored and avoids depending on the harvesting season. This series of tasks may vary. There are steps that do not take place or others that are added, because the ways in which we consume food — just like the preparations and utensils we use — are a reflection of the society that produces them and change over time and in each geographical area.

During the Iron Age the grinding of grain was done by mortars and mills. It was a domestic activity, with its location in pre-Roman fortified villages indicating that it was done inside the buildings — mostly those with a fireplace — and possibly by women. In addition to finding stone objects, we also know about some of the foods from the remains preserved in some ceramic items and mills located in these villages. These analyses identified wheat, acorns and millet processed into flour, perhaps to prepare some kind of bread, porridge, cakes, etc.

The most common milling tool was the metate or mealing stone. There are several types that are differentiated based on shape: boat-shaped, flat, or trough-shaped, although all have in common the way they were used. The grains are broken with the grinding stone and milled forcefully on the base with a back-

and-forth motion. Perhaps the fact that this mill was so simple to make and that it could be used for different products — not only plants, but also dyes or minerals — enabled it to survive throughout prehistory, coinciding during the Iron Age with another mill that would eventually replace it.

The circular type hand-mill was introduced around the fifth/fourth-second century BC via the maritime trade routes to the Mediterranean. It had a top part, the grindstone — which often included wooden handles (that have not been preserved) — that rotated on the base. This rotational movement facilitated the work required by the metate and reduced the time required to grind the same amount of flour. Although faster, it was also more complex to manufacture as it required specialised stonework and was not as multifunctional.

Mortars — in addition to the mills — played an important role during the final processing stage. These were basin-shaped holes made in stone that were used to crush the plant material with wood and stone rams. Although we do not have analyses that allow us to know what exactly they were used for, this may have been very diverse: making flour, breaking down grains, cracking nuts, obtaining pulp from fruits or roots, fibres, etc. ATB

1 Mortar

Granite
35 x 35 x 20 cm
Originally from the pre-Roman Iron Age village of Montealegre, Moaña (Pontevedra)

Institute of Heritage Sciences. Spanish National Research Council (on temporary loan)

2 Circular mill comprising base and grindstone

Granite
44 x 19 cm / 43 x 14 cm
Originally from the pre-Roman Iron Age village of Santa Tegra, A Guarda (Pontevedra)

Museo Arqueolóxico Monte Santa Tegra, A Guarda (Pontevedra)

3 Boat-shaped mill comprising base and handstone

Granite
60 x 38 x 15 cm / 45 x 17 x 9 cm
Originally from the pre-Roman Iron Age village of Santa Tegra, A Guarda (Pontevedra)

Museo Arqueolóxico Monte Santa Tegra, A Guarda (Pontevedra)

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