Ancient Olive Oil Production -
The Greek World, Part II **by C. Mundigler**

In the last issue of *Labyrinth* we looked at some of the mythological and heroic tributes paid to the simple olive tree - from Athena to the Olympic athletes of ancient Greece, the olive bestowed honour, power and life to the early Greeks.

Geography played a large role in the millions of olive trees still found all over Greece - trees with a heritage as strong and proud as the olive farmers themselves. Trade took the olive's oil far afield in the ancient world, but it is the production of the oil that played a key role in Greece's economy and livelihood.

While pollen from olive trees has been found in archeological sites dating back as far the 12th century BC in the western Peloponnese, the exact origin of olive tree domestication is not exactly known. By the 10th century BC, the olive was well on its way to becoming one of the major sources of Greek prosperity. The reasons for this are simple - the soil in ancient times, as today, is well-suited to the cultivation of olive trees, and once they are established, olive trees need little care and maintenance, except perhaps in the short harvesting season. Initially, olive trees can take up to thirty years to return an abundant crop - it is no wonder, then, that these trees, some of which are claimed to be more than a thousand years old, are so carefully and patiently attended to. Even then crops tend to be heaviest every other year, with trees in any given area generally yielding at the same time.

Olive trees are able to soak up whatever moisture is in the ground with their long roots and tend to keep silent vigil over the countryside generation after generation, with their small, narrow leaves losing as little moisture as possible to the hot, dry Greek summers under Helios, the sun god. Farmers today are often seen ploughing between the trees in all different directions to loosen the soil and reduce moisture loss - there is no reason to think that their ancient forefathers did not do the same.

Once nature and the gods have had their way, with some minor intervention by mere mortal farmers, harvesting in ancient times was done by picking the olives by hand wherever possible, rather than by beating or shaking the trees as is often done today. Although Roman, the 1st century BC scholar Varro also wrote about things Greek, and in his book *On Farming* (1.55) he describes methods and techniques which were no doubt applicable throughout the known world of the time. Varro tells us that "Olives that can be reached from the ground or from ladders should be picked rather than shaken down, because fruit that has been struck loses flesh and yields less oil." He goes on to say that, "Those that are picked by hand are better gathered with the bare fingers, not with rakes, for the hardness of the latter bruises not only the berry but the bark of the branches and leaves them exposed to frost." If the olives must be beaten down, Varro recommends a reed rather than a heavy pole, and even then care must be taken not to strike the fruit directly, since "an olive struck in this way carries away with it a green shoot from the branch, and next year's fruit is lost..." Varro cites the loss of this little shoot as the main reason that olive trees did not bear fruit every year for ancient Greek and Roman farmers who did not want to go to the trouble of picking the olives by hand.

Harvesting was usually done in late November or early December until mid-February. A hectare of land in Greece generally supports about a hundred olive trees, evenly spaced in neat rows so that their canopies do not touch and yet close enough to give the maximum crop yield. This same hectare of trees will usually yield between 200 kilograms and 400 kilograms of olives per year, depending, of course, on the rainfall, sunlight, insects and, most importantly, the whims of the gods. An ancient Greek philosopher, Theophrastus, writing in his *History of Plants* (IV.3.1) around the 3rd century BC - a work which was later used extensively by Pliny - wrote about the wonderfully abundant harvests of olives, especially from Greek Cyrenaica, in northern Africa.

To help produce this abundance of olives, fertilizers were often used, and here the olives themselves were put to additional use. Ancient sources, such as Columella from the 1st century BC and Varro again, mention both "manure-laden seepage" and the "watery lees squeezed from olives" (Columella, *On Agriculture* 1.6-9) which were used as nutrients for vegetables and fruit trees, among them olives no doubt. Varro states that *amurca* (the dregs from pressing olive oil), used sparingly, "is commonly poured round the roots of trees, especially olives, and wherever there are noxious weeds in the ground." (*On Farming*, 1.55). While these techniques were used well into Roman times in both Greece and what is now known as Italy, no doubt these strategies had their roots in ancient Greek agriculture and olive cultivation.

The time, then as now, between harvesting and pressing was probably kept to a minimum in order to preserve the flavour and aroma of the olives. If the olives are left too long before pressing, oxidation begins to set in and the quality of the resulting oil is affected leading to a less and less superior grade the longer they are stored. Modern olive farmers wait no more than 3 or 4 days to press their harvest, and there is no reason to believe that their ancient counterparts left the interval any longer than that either.

Today, olives range from straw-yellow to emerald-green in colour, with the darker olive often giving a fruitier flavour. There is, again, no reason to believe that ancient farmers and their clientele were any less sophisticated in their choice of olive oil than we are today. Olive oil, like wine, often has a vintage and a pedigree, and sometimes the oil is blended with other varieties to give better, or more desirable, premium oils. There were, in fact, two main types of olive oil used in ancient Greece, "some for eating, others to be liquified and anoint the body both within and without, thus following the master to the baths and the gymnasium." (Varro, *On Farming*, 1.55).

Methods and techniques for producing olive oil varied little between Greeks and Romans and the uses to which this important commodity was put were similarly tied together. Next, we will investigate some of these uses of olive oil and the simple, yet efficient, ways in which it was produced, traded and politicized.