

We have already seen the large role the development of agriculture played in the growth of Greek civilization. Here we will look a little further into the cultivation of crops and the domestication of animals both on the Greek mainland and around the Eastern Mediterranean.

Early agriculture outside of Greece itself helped to sustain settlements on many of the Greek islands, such as the Cyclades group just south-east of the Greek mainland. On islands such as Crete in the Minoan Era of around 3400 to 1400 BC, agriculture was one of the mainstays of early civilization. Products such as wheat, barley, millet, flax, legumes, figs, dates, wine, oil and timber were all central to the islanders' livelihood, and the latter three were even produced in surplus. Archaeological evidence in the form of vast quantities of spindles and looms found at Knossos, on Crete, would indicate that spinning and weaving - activities associated with the products of domesticated animals—were well under way during the Minoan Era.

Due to its geography, about three-quarters of the Greek mainland is unsuitable for farming on any scale other than merely subsistence for the immediate family working the land. Greece also had another problem to contend with which was not really encountered by earlier Near Eastern societies. If the Greeks experienced a season of heavy rains and melting snow, the streams throughout the countryside could turn into torrential rivers which could overrun and wash away good farm soil, rather than lay down rich new alluvial soil as along the Nile and Euphrates Rivers, for example. Along the coast and plains, however, the Greek climate, with its hot summers and mild winters, was very conducive to growing grapes, olives, flowers, some cereals and vegetables. The sloping hillsides, in many places, were rich in pasture land for small domesticated animals. Despite this fact, however, the Greek countryside and pasture land still could not sustain large flocks of livestock, so that any domestic animals that could be raised were prized for their milk and wool and not used extensively as a source of meat.

Other areas under Greek influence did much better, specializing in certain agricultural products and exporting their commodities to the Greek mainland and foreign markets. Sicily, Cyprus, Egypt and southern Russia furnished the bulk of the Greek grain supply, while the Black Sea area was not only a chief grain producer, but also supplied flax for ropes and produced linen for clothing.

From at least 1100 BC on, Greek families had to be self-sufficient and live off the food they could produce themselves. This could be difficult, especially in times of war when agricultural land was virtually destroyed over and over again. It was a hard life for the Greek farmers, who were the ones who had to fight the wars voted on by the assemblies, and then often had to stand by and watch their lands and crops being destroyed by invading armies. (During the Peloponnesian Wars, for example, the Spartan armies levelled farms so often that full recovery was made almost impossible.) The small farmers began selling off their land to wealthy land barons and the problems associated with large estate farms began to plague the Greeks, as they would in years to come plague the Romans on the Italian peninsula. While these wealthy landlords may have protected the tenant farmers to some degree, the latter had to turn over most of their produce to the landlords. It was not much different in the Greek territories either. Under the Greek rulers of third century BC Egypt, for example, agricultural and economic land policies were undertaken whereby all land, resources and produce belonged to the Ptolemaic rulers. This included the very best soil which was worked by the tenant farmers who had to pay annual rent and taxes in produce in exchange for seed from the rulers to grow food which then belonged to those same rulers: obviously an agricultural land policy enacted by the nobles for the nobles.

As indicated in the previous article of this series, ancient literary sources help to fill in the gaps left by sparse archaeological evidence. In his *Works and Days*, Hesiod gives us practical agricultural information about early farming techniques in ancient Greece. He includes instructions on how to make a plough, how to rotate crops in a field, and even how to select a wife! What more could a farmer ask for in a "how-to" manual?—even though Hesiod wrote it as a book of advice on farming to his brother Perses. Other ancient authors, such as Aristophanes, Plato and Xenophon, all painted pictures of farming life and activities, whether philosophical, comical or practical. Some, like Theophrastus, were well aware of soils, nutrients, fertilizers, crops and the technical aspects of farming. Aristotle, in his *Politics* (Book I, Chapters 9-11), writes about "natural finance" which concerns the fruits of the earth and animals - a fascinating study of agriculture, produce and finance. It is Hesiod, however, who brings home to us the practical aspects of choosing farm implements, of planting, ploughing and harvesting. Others may have been interested in plants, but Hesiod was interested in the farmer.

While the politics of agriculture may have been very complex in ancient Greece, for the most part the farmers that Hesiod described lived a simple life and kept their techniques simple as well. Once the processing of grain became more of an industry, however, the whole tone of the agricultural lifestyle changed considerably. "Commercial" mills with large, flat

revolving millstones turned by slaves or animals came into common use. Watering the fields also evolved into a complex system of irrigation and drainage canals and ditches. Tilling the soil on a flat plain had also been a fairly simple undertaking, but once the hillsides were utilized for farming and not just pasturing animals, terracing was necessary to keep the soil from being washed away down the hills by the rain. While agricultural techniques may have remained fairly static in Greece for many centuries, development and refinement did occur—although perhaps very slowly. Greek colonization around the sixth and fifth centuries BC helped in this development, as colonies expanded to the Black Sea, southern Italy and Sicily where they found similar, but more abundant fertile land to cultivate.

Next we will turn our attention to early Rome to see how it dealt with the techniques and implications of the greatest of all human developments—agriculture.