











DEFORESTATION AND THE ROMAN EMPIRE

THE ROMAN EMPIRE WAS THE LEADING SOURCE FOR DEFORESTATION IN THE MEDITERRANEAN WORLD IN THE CLASSICAL ERA.

Whereas the Mediterranean was largely "prehistoric" in 1000 BC, it was definitely "historic" by 500 AD. Roman geographical and population expansion spread methods of agricultural and economic development which encouraged the clearing of forested land. The spread of Roman practices had unintended devastating effects on the environment.

			<h2>CAUSES</h2>								
											
	<p>The most basic building supply in the Roman time period was wood. Trees were cut to house increasing populations throughout the Roman Empire. While some Mediterranean houses were built with brick and stone, roof structures, covered with tiles, as well as floors were often made of wood. It is estimated that the Roman Empire had a population of 60 million people, with one million or more in Rome alone (a population that was not matched in size in Europe until London in the 19th century). With such a large population increase, resource consumption became exponentially extensive.</p> <p>Wood was a primary source of heating and used extensively in industry. Wood fuel constituted about 90 percent of the consumption overall, and was a major factor in the Roman deforestation epidemic. Wood was essential fuel in industries like mining, smelting, and the making of ceramics. Forest areas around mining centers were deforested first, consuming all natural resources around the area of work. Once all the natural resources around the area of production were consumed wood was then shipped and carried in to supply the furnaces and smelters for the mining centers.</p>	<p>Agriculture was the economic base for the Roman Empire. With an ever-increasing population, the clearing of land for crops was a primary cause of initial deforestation. Human hands gave way to the iron plough and the use of animals to clear dense forests to utilize the rich soil</p>	<p>The four major species in Roman grazing were cattle, sheep, goats, and swine. They formed a synergistic partnership that was destructive to virtually all vegetation within reach. Herders cut down trees to let them graze. Swine ate acorns, chestnuts, and beechnuts, which destroyed the ability of trees to reproduce. Sheep ate grass right down to the soil. Goats will almost eat anything but preferred woody plants such as bushes and young trees. Herds of goats throughout the centuries were everywhere in the Mediterranean and were easy to care for. Goats basically destroyed the mountainous regions for its grazing. The consumption of hillside plants and young trees caused erosion, stripping hillsides of soils and eventually exposing bare rock (causing severe flooding in many areas</p>	<p>With natural resources dwindling, maintaining a strong military for the conquering of new lands was vital in Rome. Military campaigns devastated the countryside. Julius Caesar himself ordered troops to cut down forests to prevent sneak attacks. Deforestation ensured that the forests could not provide cover and camouflage for Rome's enemies. The military utilized these resources and built fortresses, along with tools and transportation to carry supplies where needed.</p>	<p>Shipbuilding was a major contributor to deforestation and was of great economic and military significance. The importance attached to the supply of timber for building ships cannot be denied; ships were crucial to the burgeoning economic life of the Mediterranean, and sea power was vital in the exercise of political control. Thousands of ships were built during this classical period. At times of war, hundreds could be built within a month.</p>	<p>Early urbanization of Rome and surrounding areas was focused around the ability to obtain natural resources. The creation of large cities contributed to deforestation in the classical world. Overcrowding forced citizens to move to the hillsides where forests once stood to build their homes. Wood was needed to not only build homes, but also to keep them heated. Urbanization and the resulting degradation of the environment ultimately weakened the Roman Empire</p>					
<h2>CONSEQUENCES</h2>											
<h3>SOIL</h3>		<p>With an increased demand for resources and food, constant pressure was put upon the land and soil to provide food for a growing economy. Regular clearing and plowing exhausted existing soil, which eventually became infertile</p>		<h3>FLOODING</h3>		<p>Erosion accelerated up to twentyfold in the 3rd century, creating unusable marshlands, which spread diseases such as malaria. Rains washed away the unprotected earth and greatly altered coastlines, in some cases, pushing them many miles farther out to sea.</p>		<h3>AWARENESS</h3>		<p>Clearing for agricultural needs and for heat was a necessity for long-term survival in Roman times, though there is a debate as to whether the Romans understood the implications of deforestation. Forests were also under government regulations and protected for future resources. Unfortunately, these attempts may have been too little too late.</p>	