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## Mayan Culture and Attitudes towards Sustainability

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Abstract: Agricultural methods and ecological approaches employed by the pre-colonial Mayans may provide valuable insights into forest management and viable alternatives for resource sustainability in the face of major deforestation across Central and South America. Using a combination of observation data collected from the modern indigenous inhabitants near Mixco in Guatemala and historical data, this study was able to create a holistic picture of how the Maya maintained their ecosystems. Surveys and observations were conducted in the field, over a period of twelve weeks across two years. Geographic and archaeological data for this area was provided by Guatemalan organizations such as the Universidad de San Carlos de Guatemala. Observations of current indigenous populations around Mixco showed that they adhered to traditional Mayan methods of agriculture, such as terrace construction and arboriculture. Rather than planting one cash crop as was done by the Spanish, indigenous peoples practice agroforestry, cultivating forests that would provide trees for construction material, wild plant foods, habitat for game, and medicinal herbs. The emphasis on biodiversity prevented deforestation and created a sustainable balance between human consumption and forest regrowth. Historical data provided by MayaSim showed that the Mayans successfully maintained their ecosystems from about 800BCE to 700CE. When the Mayans practiced natural resource conservation and cultivated a harmonious relationship with the forest around them, they were able to thrive and prosper alongside nature. Having lasted over a thousand years, the Mayan empire provides a valuable lesson in sustainability and human attitudes towards the environment.

Keywords: biodiversity, forestry, mayan, sustainability

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