Silviculture
LA4782 Evolving Issues in Environmental Design

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History

Forests have played a central role in the development of human civilization. They have provided timber, fuel, food, forage, shelter, and a host of minor forest products such as bark, baskets, dyes, and beeswax. Since their earliest days, humans have depended upon this bounty. However, over the course of the last several millennia, rising population densities have made overexploitation and degradation of forests around the world increasingly common. As civilizations blossomed and forests dwindled, forest management techniques have been needed to regulate exploitation and improve the forest’s productivity. Eventually, unbridled exploitation has given way to more structured silvicultural practices, although in many regions of the world this transition has yet to occur. Recently, however, demands on the forests have changed because of advances in knowledge, technology, communication, and transportation. Increasing demands at broader spatial and temporal scales have challenged our ability to manage forests.

What is Silviculture?

Silviculture is the theory and practice of controlling forest establishment, composition, structure, and growth. The existence of predefined goals for the remaining or future stand distinguishes the practice of silviculture from simple exploitative manipulation. Nonetheless, forest manipulations range across a continuum from simple exploitation (for example, removing a few or many trees without any consideration of impacts) to the cultivation and tending of stands. While the origins of silviculture may be found in exploitative forest manipulations, increased demands on forests caused a shift to more cultivation-oriented management and the advent of modern silviculture.