

WHEN IS A TREE NOT A RESOURCE?

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Although this journal mainly considers the study of cellulosic materials as sources of structural wood, fibers, chemicals, energy, and products such as paper, it would be short-sighted to view all trees as existing in order to meet such needs. An individual tree may have multiple roles, from a human perspective. The point of this essay is that different groups of trees ought to be managed in one of four ways – as crops, as natural habitat, as an awe-inspiring heritage, as in the case of national parks, and as dear friends in our yards and along our boulevards.

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TREES AND DREAMERS

Trees hold a special place in the popular imagination. Maybe it's because the lifespan of an individual tree can rival and often exceed our own. Maybe it is due to their persistence in reaching continually toward the sky without complaint. Few people admit to feeling sad when a lawnmower cuts down a dandelion or a blade of grass. But the absence of a tree, felled by lightning or a chainsaw, can weigh upon the heart of one who has grown up in its presence.

Some attribute a spiritual beauty to trees. As Joyce Kilmer wrote, "I think that I shall never see a poem as lovely as a tree; a tree whose hungry mouth is prest; against the Earth's sweet flowing breast; a tree that looks at God all day; and lifts her leafy arms to pray; a tree that may in summer wear; a nest of robins in her hair; upon whose bosom snow has lain; who intimately lives with rain; poems are made by fools like me; but only God can make a tree."

Others may be nostalgic for a simpler time. A visit to a national park sometimes can make both us and our problems feel small, awed by the sheer grandeur of nature. The white pines of Acadia Park in Maine and the redwood trees of the Pacific Northwest can remind us of our humble place in the natural order of the world.

TREES AS A CROP

According to my dictionary, a resource is something that is "available to be used." Since the dawn of civilization humans have become adept at the planting of crops, which can be thought of as a way to make ensure that food, as well as fibers for cloth, will be available at the time of harvest. The planters also learned of opportunities to select seeds from the more delicious fruits or the more productive fiber-bearing plants, such as cotton.

Presently, most of the food that we eat comes from intensively planted and fertilized fields. Not surprisingly, there have been recent trends towards increasing dependence on plantation forests, especially in the tropics, as a source of fiber for pulp and paper. Tropical plantations can offer a favorable combination of fiber uniformity and high rate of production per acre.

TREES AS HABITAT

Though plantation forests appear to be well suited to meet many of our needs for cellulosic materials, there are some needs that they do not fulfill. First and foremost is the need for biodiversity. From a strictly utilitarian sense, biodiversity can be viewed as a kind of safety net, a buffer of self-regulating biomass that contains a rich pool of genes, capable of responding to a wide range of climactic and environmental stresses, including fires and floods. Natural forests also can be a delight to visit, for instance, when we hunt, fish, and collect wild berries – returning to our pre-civilized roots as hunter-gatherers.

FARM ANIMAL, SHOW ANIMAL, WILD ANIMAL, AND PET

In many respects, the previous sections of this essay describe incompatible roles for the respective trees. A management style well suited for trees in a natural habitat (by analogy to the wild animal) is unlikely to be ideal for implementation in an intensively harvested forest (by analogy to the farm animal). A management style well suited for a national park (by analogy to a show animal) is unlikely to be ideal for implementation in the subdivision where you live (by analogy to the pet animal). The argument is sometimes heard that intensive forestry, using only a fraction of the available land, can make it possible to preserve natural areas, having a rich biodiversity. Others are fearful that modified species in an intensively managed forest may have potential to invade so-called natural areas. Conversely, hardy trees from the natural forest may act like “weeds,” invading and disrupting the uniformity of monoculture stands. Issues such as these suggest that well-planned management practices, rather than merely a hopeful attitude, is most likely to help meet our future needs for trees.

Trees will remain prominent in people’s imaginations. We will look upon their grandeur, their beauty, their utility, and their integration into a natural web of life. We will need to employ different kinds of management styles to make the optimum usage of this natural resource. And yes, some forests deserve to be considered as part of our national heritage or as our friends; those trees may be placed off limits, *i.e.* not considered as a “resource” for materials, chemicals, or fuels. But they can be a resource for our spiritual well-being and the health of our natural environment.