The Art of Silviculture

An exerpt from *Finding the Forest,* a new book by Peter P. Bundy

The art and science of silviculture is, first of all, an understanding of the complex natural processes by which forests grow, mature and decay. Some call this forest ecology. Certainly foresters, before we can prescribe plans or treatments for some desired future condition, need to observe how nature works. Silviculture, however, does not stop at observational ecology. It takes an active hand in shaping the forest of the future. We participate in the process and influence the course of events. We experiment.

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Some of the things we try don't work very well. Then we try other things until we find some course of action that provides greater benefits to more people and to the health of the forest as a whole. This is the basis of stewardship. It is both an art and a science.

In traditional forestry circles I hear a good deal about the scientific part of this equation. What is the current annual increment (the growth rate) of red pine? How much calcium does the root system of aspen uptake and where is it stored? What is the ratio of red oak advance regeneration height growth to seedling height growth? These are important questions, and the pursuit of answers is worth the time-consuming measurements and calculations. Often, however, this occurs in the more rarefied arena of research, where regression equations and statistical significance are the measures of success. Many scientific studies, however, are limited by the questions that are asked. If we don't ask the right questions, the answers may be meaningless.

Here is where the artist is sorely needed in forestry. The artist sees the landscape in a different light and asks different, more difficult questions. The artist has the vision to see possibilities for the future forest. It is the artist who is able to synthesize past information in new ways, to experiment with different techniques of growing and tending trees and to offer new solutions to old problems.

In tending our forests, we need the artistic vision at least as much as the scientific one, perhaps more. We need it more not because it is more important than the scientific view, but because, in forestry it has largely been neglected. We need to encourage foresters to try new solutions, to ask more questions, in short, to be more creative.

The artist notices shapes and patterns in the landscape and tries to make sense of them. The artist merely observes and is able to pause and watch and synthesize.

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What happened to the acorns that fell from these trees last fall? Why are these red oak seedlings so numerous in this small cove when there are none 100 yards to the north? Where did the blister rust disease enter this tree and why didn't it affect its neighboring pine?

The art and science of silviculture offers a method to integrate the artistic and scientific worlds, to integrate the subjective with the objective. Through integration we reach for new solutions for the future forests of our planet.

From Finding the Forest *by Peter P. Bundy, 1999. Bundy runs Masconomo Forestry, a consulting company that was recently assessed by FSC for certification as a resource manager, 101 West Main St., Crosby, MN, 56441; 218-546-7626*