

FOREWORD

WE READ IN fairy tales of trees with human faces, trees that can talk, and sometimes walk. This enchanted forest is the kind of place, I feel sure, that Peter Wohlleben inhabits. His deep understanding of the lives of trees, reached through decades of careful observation and study, reveals a world so astonishing that if you read his book, I believe that forests will become magical places for you, too.

One reason that many of us fail to understand trees is that they live on a different time scale than us. One of the oldest trees on Earth, a spruce in Sweden, is more than 9,500 years old. That's 115 times longer than the average human lifetime. Creatures with such a luxury of time on their hands can afford to take things at a leisurely pace. The electrical impulses that pass through the roots of trees, for example, move at the slow rate of one third of an inch per second. But why, you might ask, do trees pass electrical impulses through their tissues at all?

The answer is that trees need to communicate, and electrical impulses are just one of their many means of communication. Trees also use the senses of smell and taste for communication. If a giraffe starts eating an African acacia, the tree releases a chemical into the air that signals that a threat is at hand. As the chemical drifts through the air and reaches other trees, they "smell" it and are warned of the danger. Even before the giraffe reaches them, they begin producing toxic chemicals. Insect pests are dealt with slightly differently. The saliva of leaf-eating insects can be "tasted" by the leaf being eaten. In response, the tree sends out a chemical signal that attracts predators that feed on that particular leaf-eating insect. Life in the slow lane is clearly not always dull.

But the most astonishing thing about trees is how social they are. The trees in a forest care for each other, sometimes even going so far as to nourish the stump of a felled tree for centuries after it was cut down by feeding it sugars and other nutrients, and so keeping it alive. Only some stumps are thus nourished. Perhaps they are the parents of the trees that make up the forest of today. A tree's most important means of staying connected to other trees is a "wood wide web" of soil fungi that connects vegetation in an intimate network that allows the sharing of an enormous amount of information and goods. Scientific research aimed at understanding the astonishing abilities of this partnership between fungi and plant has only just begun.

The reason trees share food and communicate is that they need each other. It takes a forest to create a microclimate suitable for tree growth and sustenance. So it's not surprising that isolated trees have far shorter lives than those living connected together in forests. Perhaps the saddest plants of all are those we have enslaved in our agricultural systems. They seem to have lost the ability to communicate, and, as Wohlleben says, are thus rendered deaf and dumb. "Perhaps farmers can learn from the forests and breed a little more wildness back into their grain and potatoes," he advocates, "so that they'll be more talkative in the future."

Opening this book, you are about to enter a wonderland. Enjoy it.

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