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Book Review

Mapes, L. 2017 Witness Tree: Seasons of Change with a Century-Old Oak Bloomsbury Publishing New York, NY 224 pp. ISBN 978-1-63286-253-2.

Handling Editor: Wendy Chen

Intended for a broad-based audience interested in gaining a deeper, first-person appreciation and understanding of the prominence of trees in our forested landscapes, *Witness Tree* is a deeply-researched resource produced by renowned author and environmental ambassador, Lynda Mapes. This 224-page hardcover book is informative, enlightening and perhaps most powerful of all, is written from such a deep introspective place that it almost immediately transports the reader into the world of the author. This work is written in a manner that is engaging to a casual reader, and surely gripping to any tree enthusiast.

In the 'Introduction', the author outlines a deep connection to trees and to the land through details about her childhood that involve both the feelings of admiration and feelings of appreciation from the practical goods that trees provided. She also explains what a "witness tree" is:

"In the eighteenth century, surveyors used so-called witness trees as landmarks to lay out the metes and bounds of new landscapes. My modern-day witness tree would likewise be a living marker from which to understand our past, interpret our perplexing present, and regard our future." (p.7)

The body of the book details how Mapes decided that a century-old red oak that measured 83.5' in height, featured a crown spread of 60' and trunk diameter of 32" would be the witness tree that she would study for her time as a Bullard Scholar at Harvard Forest in Petersham, MA:

"Sprouted from an acorn there by that [stone] wall, the [red] oak was a cultural tree, and a historical artifact. Left, rather than cut, it was a witness to all the changes that had come over this landscape." (p.17, 18)

"A tree this big, in this spot, has seen it all, from our changing relationship with nature in our urbanized industrialized, and digital lives, to the altered clockwork of nature. Like the witness trees surveyors used in the eighteenth century to mark metes and bounds of new landscapes, this tree could by my marker and narrator a living timeline of cultural and ecological change." (p.18)

From climbing the tree – with the assistance of professional arborists – to detailing its anatomy, to discussing how water moves within a woody plant, Mapes outlines observations and facts with critical detail.

Throughout the book, Mapes takes great strides to detail the specialists she encountered during her year-long stay at Harvard Forest. From Dr. Andrew Richardson, a Canadian who was performing climate modelling and investigating seasonal change using imagery technology,

to Audrey Barker Plotkin, a senior scientist and field research manager, to Dr. David Orwig, a senior ecologist. Mapes details spending substantial amounts of time in the field with Dr. John O'Keefe, a biologist and graduate of the University of Massachusetts. She details how for 25 years he has regularly walked sections of forest taking detailed seasonal field notes. It was based on O'Keefe's suggestion on one of these field walks that she chose the red oak as her witness tree.

Mapes explains that phenology relates to the study of the "timing of biological phenomena in nature and their relationship with the earth's environment, particularly the climate." (p.131) She recounts that the longest continuous phenological record may be the flowering cherries of Kyoto, Japan (A.D. 705). Other earlier recordings also included the timing of grape harvest in France, commencing in 1370, and observations of the unfurling of spring that were recorded by Robert Marsham in Norfolk, England in 1736 that continued through 1958 by members of his family. In detailing this rich tradition, she not only contextualizes the long-term observations made at Harvard Forest by O'Keefe and other scientists, but places a much-needed emphasis on this practice. From nutrient cycling, to water purification, to leaf flush, forests compose a critical component in the natural world. And Mapes highlights how firsthand observation of these attributes can be an important piece of educating others:

"It felt like a lesson, a personal reckoning and ethical awakening from a human-centered or anthropocentric view, to simply grasp the reality of where we truly stand on this earth. We are not separate from nature, we are of it, and in it, and we need an ethical framework to match. We need a tree culture, a nourishing mutualism that embeds us in creation, working with one another in collaboration with nature to sustain us in our common home. From such a perspective, solutions can emerge. Without it, they likely will not." (p.204)

In speaking of people of ages past, who lived on farms and near forests, Mapes writes, "Whatever was going on in nature, it mattered – a sensitivity and focus lost for many of us today" (p. 135). Readers of this book owe the author a debt for reminding us just how much the signs and wonders of nature should matter in this present time.

Declaration of Competing Interest

I would like to declare that there is no conflict of interest associated with the formal Book Review that I have recently submitted to Urban Forestry & Urban Greening.

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