

CONNECTIONS BETWEEN THE UNCONNECTED

Boundary Layer: Exploring the Genius Between Worlds

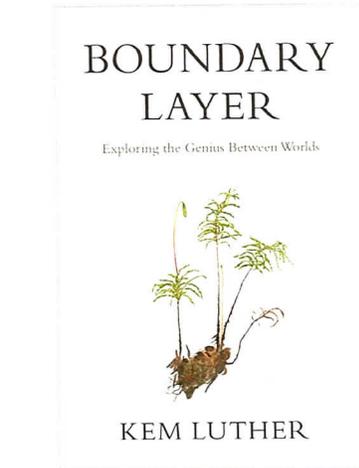
Kem Luther, Corvallis: Oregon State University Press, 2016, 186 pages.

Reviewed by CHERYL HENDRICKSON

The attractive book with the moss watercolour on the cover caught my eye in the new AJJ office. The back cover promised an “exhilarating mix of natural history, botanical exploration and philosophical speculation” of interest to, among others, botanists like me. Intrigued, I picked it up thinking, perhaps *Boundary Layer* will give me a fresh perspective on the way I do botanical surveys and reclamation work in Alberta.

It does not, but that doesn't mean I didn't enjoy parts of this book. The “boundary layer” as a concept is first revealed as a physics phenomenon. As a metaphor, it is expanded to include the layer of diminutive mosses, lichens, and fungi (collectively referred to as non-vascular plants) that occupy the boundary between earthly and atmospheric strata. Then Luther looks at the in-between places of ecosystems at different scales, for example, the rare ecosystem on BC's West Coast that lives between active and stable dunes. Finally, he applies the metaphor to the undefined place between the humanities and science that Luther says, “is my own deepest rift.” Boundary layer is a construct that ties these otherwise unconnected topics together.

To fill this rift, philosophical speculation makes about a



quarter of the book. We understand why, when Luther reveals in the epilogue that he is a graduate of philosophy at the University of Chicago. So if you enjoy the larger sweep of thought about the origins of ecology, or of the definition of wilderness and the ramifications this has had on past and current policy – to name two examples – you may find these sections and chapters thought provoking. If, for a feet-on-the-ground practitioner like me, you are not, or if you fill the rift in other ways, such as with art or spirituality, there will be a chunk of this book that will be skimmed or passed over.

Luther does take a naturalist's look at the mosses, fungi and lichens that occupy the terrestrial boundary layer, and it is a good introduction to these often overlooked plants. In these

chapters there are meta-facts that are engaging and read-aloud worthy. For example, 90 percent of forest plants are estimated to have secretive, below-ground fungal partnerships that are essential for some plants (such as orchids), and for others, gives them access to increased nutrients and contributes to their success.

While Luther correctly identifies the paucity of specialists able to identify mosses, his list of practitioners only includes academics and their students. There are moss specialists working in Alberta who are not connected with any university, and there is a surge of enthusiasm to learn to identify mosses and lichens among some professional and amateur botanists.

Besides saying there are not enough trained specialists to identify non-vascular plants, Luther also mentions the difficulty that single-year baseline surveys pose for fungi, which do not all produce identifiable mushrooms annually, but might only do so every five years or more. As well, he raises the difficulty in understanding and categorizing a symbiotic organism such as lichen, the result of a partnership between fungi and algae, where the fungal partner provides structure for the alga, and the alga photosynthesizes and provides food for the fungus. The two organisms combined express not as either, but as a new organism: lichen. Both the timing of surveys and botanic complexities underscore why efforts to survey pre-development communities to reduce environmental impacts, or protect rare species, are so imperfect. It poses the question, as James Kay pointed out in this journal 20 years ago: do we only count wildlife that are attractive and easy to see?

Luther examines each boundary layer species or ecosystem through best known BC researchers. Some of their personal journeys as relayed by Luther are more engaging than

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others, like the Czech mycologists who chose not to return to their homeland in defiance of their government and stayed in Canada to build new careers in British Columbia. Or the lichenologist who overcame severe depression, now lives and studies in park-like seclusion, and says, “news to me is where the snowline on the mountain is today”. Both character sketches come as a welcome relief when my interest starts to fade with the less captivating

government employees and academics who carry the narrative for ecological-scale stories.

Although all of the people, species and ecosystems are in British Columbia, the processes described happen globally and shouldn't stop anyone anywhere from getting something out of this book, philosophically, historically or scientifically.

Ultimately, Luther opines that, “Unable to see the processes of nature

at work in our daily context we will stop recognizing these processes. Eventually we will stop valuing them.” The converse is also true: when we understand and recognize the processes of nature at work, we will value them and become engaged. **AJ**

Cheryl Hendrickson is a consulting biogeographer who lives in Alberta's boundary layer of foothills. She is a long-ago managing editor of AJ.

75 YEARS OF FIGHTING

Community Vitality: From Adaptation to Transformation

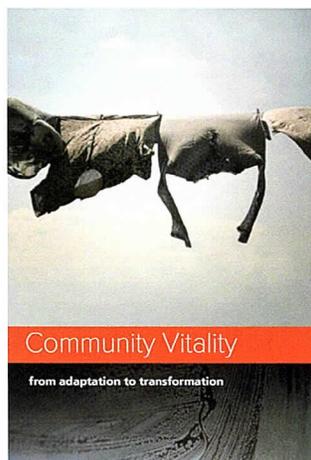
Ann Dale, Rebecca Foon, Yuill Herbert and Rob Newell

Reviewed by SALLY LERNER

AJ readers are familiar, perhaps to the point of saturation, with the discourse around sustainability. Community Vitality is a valuable addition to the conversation primarily because it explores the myriad connections among the environmental, social and governance aspects of sustainability.

“Vital communities are characterized by strong, active and inclusive relationships between residents, private sector, public sector and civil society organizations that work to foster individual and collective wellbeing. Vital communities are those that are able to cultivate and marshal these relationships in order to create, adapt and thrive in the changing world and thus improve well-being of citizens.”(7)

What makes the difference between surviving and thriving? In 2009, respected academic Dr. Ann Dale (Royal Roads University) asked her research team to explore the notion of community vitality, seen as a key concept underlying the question of why



“some communities are resilient, adaptive and innovative in the face of change and others are not?” (1). The aim of this accessible book is to “translate” such research into a straightforward yet sophisticated primer for anyone interested in that question.

Each community has its own unique set of values, problems and goals. Community Vitality offers a conceptual framework that allows people in very different places to begin discussing how to map their community's path to satisfying sustainable living. There is no cookie-cutter model here. One of the book's central points is the necessary role of ‘homegrown’ participatory governance in designing for and achieving community vitality.

“Part of the transition to new forms of governance is expanding the base of decision-makers to allow for ongoing discussion – essentially expanding what we define as government and

governance. This requires a move from traditional consultation to dialogues, where governments are mandated to educate people as well as solicit feedback on existing and new government policies and programs. Fundamental to expanded decision-contexts are principles of participation, both face-to-face and virtual.” (81)

To meet the varied ‘wellness’ needs of the elderly, children, youth and a variety of other groups, consideration must be given to creating the all-important social capital that underpins quality of life in any community. The evidence-based research summarized in many of the book's chapters calls attention to the need for integrated thinking that clarifies the links between the built environment, green spaces and human contact. For example, parks are (usually) good, but how can they be made more welcoming for parents and toddlers, for walkers seeking company or peaceful solitude? It is the answers to these kinds of questions that must come from all of the people who live in any particular community.

This compact, well-researched book suggests coherent ways of thinking about how to develop thriving sustainable communities as well as renovate existing ones. As such, it is a valuable contribution to the contemporary sustainability conversation. **AJ**

Sally Lerner is professor emerita at the Faculty of Environment, uWaterloo.

