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The Learning Garden: Ecology, Teaching, and Transformation. V. Gaylie. New York: Peter Lang, 2009.

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As teacher educators and lifelong environmentalists, we come to *The Learning Garden* from North American and Australian perspectives in science and social studies education, professional learning, and sustainability education. Gaylie's book situates preservice teacher learning in a garden, and the goal of the narrative style employed throughout the book is to be both informational and inspirational. The book is successful on both counts.

Like many teachers, we have had a tendency to see ourselves as controllers of both the relationship and knowledge passed between us and our students. Gaylie shows that by changing the context of our learning spaces, teachers can learn to cede this control and learn with their students: a significant change to the traditional relationship between teachers and students. She emphasizes that through stopping and slowing down, "A garden has the power to translate complex theory into practice" (p. 38). Further, drawing on the students' wisdom and that of the land itself means that theoretical understandings about learning can be aired and interwoven into the fabric of the learning community.

Narratives in *The Learning Garden* are based on philosophies of outdoor and experiential learning where students can engage "hands, heart and head" (p. 12). This particular project began with a weedy, disused piece of land at the edge of the Okanagan campus of the University of British Columbia, and a stewardship committee of teacher education students who took a course in environmental education and engaged in the work of collective decision-making to decide how to nurture the land. Gaylie draws on questions asked earlier by Wendell Berry such as, "What is here? What will nature permit us to

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do here? What will nature help us do here?" (p. 42). Through their work in the garden, several generations of teacher education students have learned lessons of inclusion and equality as evidenced by one of Gaylie's students who drew important connections: "Social justice, environmental justice and empathy are concepts that in order to be taught must also be practiced" (p. 120). While learning about traditional growing practices and nature, students in the garden "learn through process" in a continual interplay between abstract and concrete knowledge that is open to many metaphors. As a result, they have cultivated adaptive capabilities for developing knowledge, new attitudes, and willingness to engage locally in environmental issues.

Lest we think that Gaylie has solved perennial teacher education issues of creating meaningful learning experiences for her preservice teachers, readers are cautioned that this is complex work: transformation has no recipe. And in challenging conceptions of teaching and learning, fears and anxieties will probably surface. At the heart of the project of the learning garden is a critique of colonial discourses of human subjugation of the land. Teaching out of perspectives in traditional ecological knowledge and wisdom, developing a respect for the land's capacity, and the cultural importance of plants and animals are all an important part of the garden as a teaching space. Readers of Gaylie's book may share Lila Watson's (Gough, 1999/2000) view of an appropriate relationship: "If you have come to help me you're wasting your time. But if you've come because your liberation is bound up with mine, then let's work together" (p. 115). Watson, an Aboriginal educator and activist, argues that Aboriginals have much to teach other Australians about how to approach the land respectfully and that government and communities need to realize that the relationship between people and the land cannot be based on a postcolonial desire to help one's poor neighbors through a sense of guilt. Rather, the relationship must be built out of a desire to place Aboriginal people as co-writers of our shared future and to be seen as people who have wisdom that should be shared: decolonizing hearts and minds is an important project for us as educators (Battiste, 2004).

Working in the learning garden with her preservice teachers to empower them as environmental educators, Gaylie adopts three metaphors for learning in the garden: garden as environment, garden as community, and garden as transformation. As environment the garden is both physical space and experiential learning process. Through responsible land management, a focus on ecological justice, and risk-taking, both land and learning are transformed. Through mindful engagement with the high desert environment of the Okanagan region in British Columbia, learners continually weigh the ecological effects of human actions and come to understand learning as an interactive process. Learning to become teachers, they develop new perspectives on the teacher's role in the learning process. As a focus for teacher education, environmental perspectives in the learning garden thus provide a context for the kinds of inquiry we wish to offer our students in teacher education programs.

As community, the learning garden is another kind of context where students come to realize the need to adapt their notions of teaching and learning in order to give voice to the land and the community. Stewardship involves sharing local knowledge of the land, which is handed between and among learners and community members, from earlier to future generations, inspiring a "logic of the gift" where world views expand to include the natural environment as a living entity.

Physical transformation of the garden is a metaphor for learner transformation during the learning process, where practical conditions, decision-making, and interpretations enable students to make important connections and recontextualize the process of becoming a teacher. Learning through process encourages and develops awareness of the continual interplay between abstract and concrete knowledge.

In each of these metaphors are material and virtual reminders of the need for slowness, simplicity, mindfulness, collectivity, and attention to contexts for learning in teacher education that create and foster opportunities for engaging hands, heart, and head. And as teacher educators, we need to seek ways to foster both in-school and out-of-school experiences that not only develop "action competence" (Jensen & Schnack, 2006), but also figure saliently in environmentally committed people's memories (Chawla, 1999). With over 80% of Canadians (Statistics Canada, 2009) and over 90% of Australians living in urban environments (UNICEF, 2007, cited in Malone, 2007), which Malone calls growing up in "McMansion Land," *The Learning Garden* highlights a means by which educators can offer encouragement and focus for their students to engage with a natural environment while still living in urban surroundings.

In addition, in an era where they are swamped by bad news on the environment and bombarded by emotive images in all forms of media, Stomfay-Stitz and Wheeler (2008) argue that our children are at an environmental crossroads. It is up to us as adults to determine how we empower them to be best equipped to deal with the flood of negative information and images. Jensen and Schnack (2006) assert that the dominant discourse in environmental education has been "scientism," where children have been given as much information as possible about the seriousness and extent of environmental problems, but we are warned that too much information can cause paralysis rather than the intended positive change. Gaylie, through her explorations in the learning garden, provides not only a practical means by which educators can help empower their students to be more proactive in caring for their world, but more important, a means by which we can keep the flame of hope alive in the hearts of our children.

Gaylie shows us that through the common space of a garden we can enable significant change in our teacher education students and their teachers in a gentle, dignified way. Despite the fears and doubts of some of her students at the beginning of their time working in the garden, over time the slow pace of negotiation and dialogue with fellow students and teachers lessened anxiety. Seemingly echoing Cilliers' (2006) concern that learning and thinking require "a certain slowness," teachers can bring about changes in attitude and behavior among their students by giving them time to adapt to a new learning environment alongside the means to navigate the myriad thoughts and feelings experienced through projects such as the learning goal for environmental educators, and Gaylie's work demonstrates that by having the courage to abandon

traditional methods of teaching that are so often governed by time restraints and results-driven pedagogy, it is possible to achieve the transformative results that we seek. Murdoch (2006) claims that the highest level of the learning process is the ability of the teacher to enable generalizations to be transferred beyond the classroom, and Gaylie's learning garden highlights a means by which this generalizability can be achieved, where a deeper awareness of the wider environmental issues facing humanity and the desire to do something about them can be fostered. Gaylie offers only minor guidance on practical matters though: her main contribution in this work is a philosophy of teaching and learning as manifest in the garden as learning space.

The Learning Garden beckons us as teacher educators to rediscover the wonders of nature and the wonder of learning. Although written in the context of a university campus in North America, the book crosses boundaries, making it relevant not only for academics and teachers, but for anyone interested in a Deweyan perspective of experiential learning where deeper connections with life itself can be made. The simplicity of Gaylie's project and the accessible nature of the book will enable its adoption by those in educational settings and anyone else interested in the learning potential of a garden space.

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