BACKGROUND

I've been part of an educational team at Royal Botanic Gardens Melbourne (RBGM) in Australia for a number of years now. RBGM Education offers forty different programs for students from preschool, elementary/primary, middle and secondary school levels. We also work with adults from vocational and higher education settings who are training to be horticulturists, qualified childcare practitioners, and early childhood and elementary/primary/secondary school teachers.

Our team facilitates learning experiences in a wide range of subjects, such as organic gardening, water conservation, food, climate change, and indigenous culture. This work has brought me closer to nature in a way I could not have imagined previously. While we are the ones called "teachers" in this place, it is Nature who is the real teacher.

This might be considered an odd setting for Body-Mind Centering, but I find that BMC and other somatic educational principles inform my pedagogy at RBGM. I draw on these principles to understand the responses of students to being in nature, and to guide me in supporting new possibilities for them. In this essay I will share some of my observations as well as the questions that evoke in me regarding the future of learning and of the role of nature and somatic experience in education.

SHADOW & LIGHT

It has been fascinating to notice how being in nature reveals some of our Western culture's preferences and norms around learning and communication. Some children and adults can come to a RBGM outdoor education session and talk their way through the entire experience. There is nothing wrong with this per se. However, it does point to a preference for particular modes of learning: talking, reading, writing, and thinking, all of which are logosentric, or focused on the written or spoken word. These logosentric modes of learning and expression are essential in contemporary education (sometimes referred to as traditional education (Rathunde, 2009), but I would suggest that they have become privileged over other ways of learning. In both children and adults I sometimes notice an imbalance in their ability to balance sensory-motor input and output. This imbalance is characterized by fragmented attention and an inability to focus.

By contrast, in a nature-based setting, one of the ways we learn is through quieting parts of our higher brain, especially the neocortex. The neocortex is the part of the brain associated with advanced cognitive functions: thinking, imagination, interpretation, analysis, and reading. For example, it has been suggested that the neocortex seeks孔雀 or feeds on particular forms of stimulation such as the spoken/ written word (texts) and particular types of visual imagery (Sicchi cites Tolja, 2009). This quieting of the neocortex allows our senses and proprioceptors, i.e., aspects of our lower brain, to open gently to what surrounds us—smells, colors, birdsong, insect chirps and rustles, the feel of a light breeze, sunlight, shadows, the earth underfoot, and more. We become more sensitive to our surroundings and to our place within them.

This quieting of the neocortex can sometimes be difficult for people to achieve. When I ask a group of children (or adults) to stand still in a grove of trees, to stop talking and to close their eyes, I often notice uncomfortable looks here and there, a sense of irritation, or whispered comments about moving on to the next thing. It's as though the mind is searching for, even craving, stimulation from the next big attraction. For others, it is a relief to have a recuperative moment, as is shown in the smiles and the softening of their faces.

FINDING SENSORY-MOTOR BALANCE

In addition to supporting balance between the higher brain and the lower brain, being in nature can also help reestablish balance in the sensory-motor nervous system. The student who talks his way through a whole nature-based class experience, or the executive whose ear is glued to his cellular telephone as he moves through the day—both are 'motoring' through the learning journey. Constant talking is an example of over-activity in the motor nervous system, and it overrides most other sensory inputs. Those sensory inputs—the surrounding sights, smells, colors, sounds, etc.—are still present, but they remain unnoticed.

In its vibrant multiplicity, however, Nature asks us to use all of our senses (as well as our motor system) to fully take in what surrounds us. Nature expresses as multiplicity, and our portals for receiving this communication are also many; thus the natural world is the original "multi-sensory learning" environment. We can allow, and even invite, the natural world to touch us—our bodies, our senses, and our body-mind—and we can learn from this direct experience. Nature can bring our fragmented attention into an integrated and balanced present. Psychologists call this Attention Restoration Theory, or ART (Kaplan, 1995 cited in Rathunde, 2009: 76).

Modern psychology is rediscovering what once was our normal state of being. Before modern technology became ubiquitous, before we lived in cities, commuting from home to office in sealed-off cars, buses or trains, our survival as a species depended on our ability to sense our environment and to respond appropriately. Even now in indigenous cultures, people's lives depend on their ability to come to silence-stillness to deeply listen, and take in what surrounds us at every level, through every channel; to respond sensitively with respect, care, and awe; and to communicate in some way with the life forms and biosphere in which they live. In addition to other non-Western cultures, these skills remain part of a child's education, integrated with, rather than subsumed under, talking as the primary means of inquiry and learning (Merriam, 2007). This regard, or love, for Nature, which scientists call Biophilia (Wilson & Kellert, 1993), is basic to our evolutionary development.

Yet today, many of us no longer let Nature in. Perhaps in contemporary urbanized cultures this trait, essential to our ancestors' survival, is becoming vestigial. Perhaps we are seeing for the first time in history the emergence of a generational amnesia regarding Nature. As each successive generation becomes further estranged from nature, their memories of it become more remote, abstract and peripheral (Lov, 2008).

If this is a movement away from nature, if we are becoming "de-natured," then what are we moving towards? And what does that mean for our species? A look at how we fill time that might otherwise have been spent in nature reveals our fascination and preoccupation with our digital devices, which stimulate our senses even as they narrow our focus. We may notice the emergence of terms such as "techno-hypnosis" or "techno-addiction" to describe this shift in the years to come.

DISEMBODIED FUTURES?

One of my teaching colleagues tells the story of working in the RBGM Children's Garden and observing a boy quietly sitting in a focused way under a towering eucalyptus tree for an extended period of time. She was impressed by this child's sense of repose and sensitivity to his surroundings. On closer observation, it became apparent that the child was in fact playing a Nintendo DS or Gameboy.
My purpose here is not to condemn a child’s enjoyment of computer gaming devices but to ask where we, as human beings, are directing an ever-increasing amount of our energies, attention, and desire?

This anecdote suggests that many of us are content to continue to reduce the bandwidth of our experience to what happens mostly in front of a large or small screen: finger strokes and taps, tracking with the eyes, electrically wiring the ears with recorded and digitized sounds, feeding the brain with incessant images, consuming content, communicating across vast distances in space synchronously and asynchronously; all while the psycho-spatially oblivious to our immediate surroundings, our immediate present. The virtual world becomes more “real” than the world in which we live. This trend is obvious on public transportation, where one can see a large percentage of people with digital devices fully deployed, in their own private worlds communicating with others elsewhere whilst in public communal space. Technophiles hail this digital-natural world convergence as progress:

As the functionality of the Internet increases, this trend points towards a convergence between the natural world [and] its digital counterpart, as social interactions, information systems, transactions and sensory systems are replicated on the Internet. (Hajkowicz & Moody, 2010:13)

Some see this transfer of interactions to the digital world as progress, but we can also see what is lost. Both the child under the tree or the teen or adult “plugged in” on the subway have lost touch with their immediate surroundings.

And on the subway or bus, we can also notice a new ethos developing in relationship to others: the sense that one’s somatic felt presence in shared collective space is to be avoided or retreated from as quickly as possible. Another aspect of human experience—shared public space—becomes quietly and anonymously disembodied.

**SOMATIC & ECOLOGICAL FUTURES**

In contrast to the general cultural trends, we somatic practitioners are deeply attuned to our senses. Our way of understanding the world and ourselves is through our first-person experience of our own bodies. We witness Nature in ourselves and can access its restorative power in any given moment, much as those who are not somatically trained can do by being in a garden or in the woods.

If the trends to de-nature human experience and relationships discussed above continue unquestioned, traditional jobs in somatics or ecology (whether social or environmental ecology) may become irrelevant. However, if this generational amnesia with the natural world continues, somatic practitioners may be uniquely positioned to help people reclaim the lost connection to organic life. Our “weakeness” may become strength and may become the pathways for helping others connect to the natural world.

I believe that this work has already begun. In Australia, as elsewhere, we are seeing the rise of new movements towards embodied ecological experience running counter to the retreat and estrangement from nature that has been well described by Richard Louv (2008) and others. For example, the “kitchen garden movement” has swept through schools in Australia and other countries. This movement has even reached the U.S. White House, as First Lady Michelle Obama has planted a vegetable garden for her family on the grounds. Gardening is a form of embodiment and of connection with nature that should not be underestimated. The rise of organic gardening, permaculture, community gardening plots, farmers’ markets, and community supported agriculture programs, as well as the ongoing popularity of traditional botanical institutions such as the one in which I work, are all testaments to the longing for reconnection with the natural world.

Just as a tiny seed can lie dormant for years, but when given what it needs—earth, sun, water—it springs to life and can grow into a mighty tree, so, too, may the knowing that we are in the somatic world have about our relationship to ourselves and to nature spring to life when called on, so that we may help future generations remember and re-cultivate a more healthy relationship with the natural world.

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**Bibliography**


**Workshop Delivered by Llewellyn Wishart**

*At The 25th BMCA Conference, Denison University, Granville, Ohio, June 4, 2010*

**Bridging Inner and Outer Ecology: Body-Mind Centering® and Somatic Applications in Environmental and Nature-Based Education**

This workshop sprang from the proposition that work needs to be done to bridge the gap between the world of somatics and the world of mainstream natural science and ecological education. Each can learn from the other. Somatics sometimes loses sight of the important teachings of nature and natural systems by continually advocating self-system inquiry a preoccupation with inner embodiment and internal reference points. In some cases this may foster a largely anthropocentric perception. On the other hand, those working in the fields of the natural sciences, systems theory, environmental education, sustainability, etc., sometimes only recognize and observe nature outside of themselves, leading to a disembodied perspective. The philosophy of Deep Ecology (Nelson, 1995) attempts to bridge this divide in somatic practice, and this workshop will explore this significant potential.

**Modalities Engaged**

- Bio-psycho-social learning approaches
- Body-Mind Centering® applications to environmental and nature-based education
- Elements of sustainability education, deep ecology, mindfulness, indigenous perspectives and affordability theory

**Synopsis**

1. Introductions/Circle of Welcome and Traditions of Welcome & Paying Respects to Country (Australian Indigenous)
2. Introducing Somatic Practices to Children & Adults in Nature-Based Learning
4. Discussion/Reflection/Evaluation

**The Workshop Journey**

**Pond Meeting Place & Assemblation**

- Welcome and paying respects to all life forms that live and have lived in this place
- Opening the senses and the end points of the body
- Exploring varied orientations to space in this natural setting
- Responding to the surrounding landscape by exploring affordances in the surrounding environment: how does this place influence your activity and exploration?

**Grasslands Walk**

- Walking engaging all one’s somatic tissues (muscles, bones, joints, ligaments), peripheral nervous system and sympathetic nerve pathways; opening to one’s surroundings while walking

**Forest/Woods**

Vibration/Resonance – Cellular Consciousness – Yielding perception

We took time to establish what could be termed phenomenological congruence between self and the surrounding life forms – in this instance, I invited participants to feel the resonance of the trees, by touching them, leaning against them, opening and observing our senses to a subtle level of receptivity and communication – perhaps embodying Biophilia? Participants were encouraged to breathe with the surrounding trees and animals.

**Walk of Return & Completion**

The very moment we arrived back at our rendezvous point for our car ride home the heavens opened with a wondrous rain shower – perfect conclusion to a deeply satisfying journey.

**Reference**