

# **Integral Ecology: Uniting Multiple Perspectives on the Natural World**

**by Sean Esbjorn-Hargens and Michael Zimmerman  
Integral Books, Boston and London, 2009**

## **Review by Jan Inglis**

I was asked by the editors of the *Integral Review* to review the book *Integral Ecology*. While reading it I alternately felt impressed, stimulated, irritated, curious, skeptical, intrigued, and appreciative. Through this review, I will offer an overview of the structure of the book and elaborate on some of the book's main themes, offering some commentary, inquiries, and alternative views.

I will begin with a description of the book's intended audience and position my background as a reviewer in reference to those criteria. The authors say they are writing the book "as an advanced introduction to Integral Theory in general and Integral Ecology in particular" (p. 13), hoping this is beneficial for those new to integral applications and studies of ecology and to those who are long-term scholar-practitioners of integrative efforts. Since the mid 1980s, I was engaged in the environmental field, offering workshops on bioregionalism, conservation, despair and empowerment, sustainability indicators, and climate change. I was involved in two international projects focusing on community sustainability using participatory action research. In my search for a way to find meaning and respond to the growing challenges, I embraced many of the ecological perspectives and methods named in this book, from blaming modernity to eco feminism, deep ecology, and creation spirituality.

It was through the searching to understand how we had created these life-threatening issues and why we did not seem to be able to respond to meet their complexities that motivated me to study adult development. I studied the early works of Ken Wilber, Clare Graves (in the form of Spiral Dynamics) Robert Kegan, Bill Torbert, and Michael Commons. I am currently less familiar with the work of two other significant contributors, Kurt Fischer and Elliot Jaques but hope to learn more of their work. After 20 years of work as a practitioner and ten as a teacher of Integrative Body Psychotherapy for individuals, I have moved towards using integrative processes to assist us culturally to develop more reflective, transformational, and metasystematic responses to complex issues. This has taken the form of developmentally designed public deliberation or what I call *3D Democracy for Civic Interaction and Action* based on public issue analysis, behavioral science, and adult developmental theory. I have published several articles on the subject of climate change from an integral and developmental perspective. (Inglis, 2007, 2008a, 2008b)



## Structure of the Book

I will describe the structure and basic content of the book indicating a few general comments with further critique offered in a later section. The writing of this book was motivated from the authors seeing a need for a textbook on integral ecology. Through the book's ambitious 800 pages, the authors attempt to cover philosophical, theoretical, and pragmatic territory. It has an extensive bibliography offering 1,750 sources from ecological and environmental literature, in-depth footnoting, and definitions of 200 perspectives on the natural world. There is a forward by Marc Bekoff, who indicates an appreciation for the authors' inclusion of animal subjectivity in their analysis of science and ecology. The introduction offers a background of the authors' motivations and their definitions for *integral* and *ecology*.

Part One introduces Ken Wilber's Integral Theory, which forms the theoretical basis for Integral Ecology. It offers chapters on the objective and interobjective perspectives they see commonly taken in environmental endeavors and the subjective and intersubjective perspectives that they see as usually lacking and therefore problematic. They differentiate between NATURE (the Kosmos, or Great Nest of Being, championed by "post rational romantics") Nature (studied by natural and some social science: the Great Web of Life, championed by "rational materialists") and nature (the empirical-sensory world: the Great Biosphere championed by the "pre-rational environmentalists"). They have described at length the confusion that can occur when developmental progressions are not considered and can lead to the romanticism about going back to a simpler pre-rational pre modern state attempting to find solutions to our current ecological issues. To further clarify the principles of Integral Ecology, they offer an in-depth critique of deep ecology and a response to Stan Rowe's critique of Ken Wilber's view of humanity's place in nature. There is a chapter on quadrants and holons, and two chapters on how they view development as occurring with a focus on natural and social science, and individual and community domains.

Part Two describes the Who, What, and Why of ecological phenomena. It uses the Wilber AQAL (all quadrants, all levels) map for "understanding the relationships between *who* is perceiving nature (epistemology), *how* the perceiver uses different methods, techniques, and practices to disclose nature (methodology), and *what* is being perceived (ontology)" (p. 158). Based on a footnote, this also includes the influences of *when* and *where*. Further sub categorization occurs by describing how these fit into four terrains, twelve niches, eight eco-selves, and eight modes of ecological inquiry. The latter presents a platform for "integral research."

Part Three briefly covers application, exploring our differing views of being "one with nature," and different assumptions of what constitutes an ecological "crisis." It promotes the need for "transformative" practices or "integral nature mysticism" through using our interaction with and inhabitation of the natural world to support deeper interior awareness. They offer some guidelines for application based on the Who, What, How categories and several project summaries.

Part Four presents three case studies including community development in el Salvador by Gail Hochachka, natural resource conflicts in Hawai'i by Brain Tissot, and environmental activism in

Canada's Great Bear Rainforest by Darcy Riddell. The case studies were not developed as research projects but offer anecdotal descriptions of long-term engagement with communities dealing with complex ecological issues. They model the AQAL method for observing and discriminating the multiple aspects that make up this complexity. This includes descriptions of the impact that detailed observations and reflections as well as having a language to communicate them can have on people and projects. The book concludes with the authors promoting the strengths and advantages of Integral Ecology, reviewing the basic principles such as: including interiority, not being reductionistic, and emphasizing spirit as both Immanent and transcendent. They also indicate their intention to be responsive to feedback and criticism by revising and rearranging their work in an attempt to continue searching for better ways to define and communicate the Integral Ecology approach "in service of a better tomorrow for all beings of this amazing blue-green planet" (p. 488).

The book is well organized, and offers an impressively bountiful smorgasbord of resources and considerations, woven together with ecological subject matter. The intent to be thorough and useful to the challenging issues facing our and other species is deeply expressed. Their attempt to provide resources for both those new to Integral Theory and ecology, as well as the advanced student, creates a challenge that they have attenuated by including both narrative as well as more in-depth footnotes.

Although they offered definitions to indicate how they were using various terms, I found that these were often vague and inconsistent and when attempting to track significant and repetitively used words such as *perceptions*, *cognitive*, or *interior* I got lost in the shifting interpretations. I would predict that for those primarily interested in the field of ecology, the amount of discourse on definitions and categorizations specifically based on the AQAL model might be off-putting without the added motivation of prior interest in AQAL specifically or in the field of adult development in general. If so, they could possibly skip to the end of the book, to see if there was resonance with the applications described in the case studies, then return to the who, how, and what analyses with more context. Despite its statement that Integral Ecology "places an equal emphasis on theory and praxis" (p. 339), I found the book to be vast in conceptualization and weak in application.

## Specific Critiques

I will now write in more depth about several key areas: the focus on interiority, the Wilber model of Integral theory (with which I am assuming the reader has familiarity), research, and application.

### The Importance Placed on Interiority

The first chapter, and a major theme of the book, is on the "return of interiority" which the authors see as having been reduced to the exteriors when the "moderns threw out the spiritual baby with the premodern bathwater, and with it went interior perspectives" (p. 21). They believe most ecologists exclude the importance of interiors and therefore Integral Ecology is especially focused on creating a return to the appreciation of the interiors as they believe therein lies our motivation to treat the natural world in healthier ways. Therefore they prescribe personal

practices to support the individual development of the interior although it is unclear how they see this development becoming integrated and transferred to systemic responses to ecological issues. They seem to assume an overly simplified causal connection: that if we feel connected with nature then we would not knowingly damage it. However, I see many people feeling very connected to nature but having a difficulty in sorting out which of the matrix of competing choices we face everyday may create the least harm now or in the future.

The authors define interiority as the “capacity for opening a perspective or clearing” (p. 41). They refer to this capacity as not exclusive to humans but more readily articulated by humans, allowing for us to be self-reflexive, to alter how we think and act, and question “origin, constitution, and purpose” (p. 41). The vague definition of interiority, along with the attempt to span all species with the term, leads to a blurring of the tremendous significance of the developmental step of self-reflexivity. The capacity to see that one has perspectives, as do others, and that these impact how we and others act, allows us to move from formal thought to postformal thought. That move enables us to see and respond to complex relations and thus act systemically. Feelings, values, and behaviors of individuals and the collective are all occurring simultaneously and reciprocally. Repetitive focus on the “interior” as the driver of development artificially suggests a separation between these aspects in ways that they are not.

Mark Edwards spent much time responding to his own question regarding the exaggerated focus on the interior aspects, asking why Wilber consigns “the Right Hand exteriors to the flatland world of shallowness while portraying the Left Hand interiors as the bastion of qualitative depth” (2003, n.p.). He cited much research that indicated how development occurs in a broader context and concluded “This incapacity to deal adequately with social theories that take their lead from the exteriors seriously limits Integral theory's potential to develop a comprehensive and integrated social theory of its own” (2003, n.p.). Thus, in such cases, what one attempts to describe as differences in quadrants is being confused with differences in complexity. Behavioral development theory (e.g., Piaget’s work in general; Commons, Trudeau, Stein, Richards, & Krause, 1998) establishes that the ability of a human to respond to single events and things (“exteriors”) develops before the more complex ability of noticing and attending to interconnected and underlying dynamics such as the feelings and values associated with events and things. Therefore focusing on the “return of interiority” as the main solution for ecological issues does not take into account this developmental hierarchy and does not indicate the methodology for how it supports the transition towards the more complex nature of systems thinking. That transition is a necessity for adequate responses to the complexity of ecological issues.

## **Does Integral = Wilber?**

“Does Integral = Wilber?” was the topic of a panel discussion at the first Integral Theory conference held at JKF University in California in August 2008. This was not a question I assumed I would focus on when agreeing to do this book review and preferred not to be distracted from conveying kudos I would like to bestow on the authors for their energy and commitment in taking on this mammoth writing. Also it seems that blogs and forums over the years have already been investing much time in this debate and many are weary of it. However, since most of this book is spent describing and promoting the Wilber model underlying the

concept of Integral Ecology, it is difficult to do a review of the book without it including a response to the Wilber model.

When AQAL was introduced it offered a ‘heads up’ examination of things entangled in a heap. Like a freeze frame in a movie, AQAL has given us a very useful way of stopping the complexity of movement and interactions and observing, analyzing and creating a precise checklist of what is involved: what is present, and what is missing. However, this is not the movie. Even if more and more freeze frames are considered, they do not equate to the complex dynamic interactions that make the movie of life. As Wilber has said several times, AQAL offers a map not the territory. Nevertheless, the static AQAL map is often used to make assumptions about how to work with the dynamic territory. This is partly why I perceive that Integral Ecology has such difficulty moving from observation to application, as it does not have a process to engage and advance the complex dynamic interactions of humans dealing with ecological issues. I will expand on this point in the section on application, below.

We need to get clear on the question of one or more integral theories and how to distinguish them. A footnote states:

Let us be clear: Integral Theory does not present itself as the only possible integral theory. It is, however, one of the few contenders at a genuinely meta-paradigmatic level. We are aware that at least some of our truth claims will eventually be proven false, but we have done our best to investigate them. (p. 552)

This differentiation, responsiveness to input, and commitment to integrity are welcome to see. Since other views on what constitutes integral theory do exist, it would be helpful to move beyond just the use of capital letters to differentiate this model, but refer to it as Wilber’s Integral Theory. As there are so many people who have been impacted by the work of Ken Wilber, this would give credit where credit is due as well as consider the natural defenses that occur whenever people with different views and experiences are disregarded. Otherwise, those who feel they are working integrally but not within this model may feel the need to seek out another term.

The tendency toward and destructiveness of territoriality between schools of thought is well named “...scholars, practitioners, and activists build fences between approaches when we are in even more need to build bridges. The result is a fragmented field of approaches that are pitted against one another” (p. 158). There is a gap between the sensitivity named above and this absolutist statement in the next paragraph: “Integral Ecology provides a framework capable of organizing and integrating the myriad perspectives and their multiple fields into a complex, multidimensional, postdisciplinary approach that defines and provides solutions for environmental problems. The AQAL approach is the only organizing framework currently available that can honor this radical multiplicity” (p. 158). This, along with another sweeping statement, “Yet until now, people have not had access to a robust theoretical model that organizes and integrates various disciplines and methods, and generates comprehensive solutions” (p. 5), does little to build bridges or open up generative discourse with peers. Such peers may not fully embrace the AQAL model and may see other approaches as offering robust theory, capable of organizing and integrating multiple perspectives. If these statements were

preceded with a qualification such as “Based on our research, we believe...” it would feel less like planting a flag and marking territory and more like owning a viewpoint and being open to its pros and cons being considered amongst other approaches. I truly feel the authors’ intent includes one of generosity, not competition, and is humbly articulated in several places in the book, but may sit in unresolved tension with another intent: that is,, that of promoting their model. Possibly these statements were meant to provide assurance for those already embracing the AQAL model that they were indeed on a really good bus that could provide hope and direction amidst the overwhelming ecological issues, but this promotion became overzealous in calling it the best and only bus.

## **Text Book or Promotion**

Further promotion of the Wilber model is found in the promises of what ‘interior’ development might create for individuals and the planet. The altitude (previously referred to as level of development) called turquoise is described: “Having experienced this [Divinity] firsthand, turquoise-integral can also help generate conditions in which violence does not occur, in which species do not become extinct, and in which terrestrial life forms can prosper in a way that both sustains span and encourages depth” (p. 140). Another statement of lofty ambition arrived as a small enclosure with my copy of the Integral Ecology book, from Integral Life.<sup>1</sup>

An Integral life is total freedom to be who you already are. A life where peace and passion come alive. Providing a place for everything in your life. Better relationships, sex, career and health. More effectiveness, more purpose. Less confusion, less fear. In order to be. And to become. Welcome to Integral Life. Where growth enthusiasts make sense of everything.

Wow, this is a very different experience than how peers and I describe our experiences as we move along our developmental progressions: seeing, and therefore needing to sort out, more and more complex material that arises within us, between us and amongst our groups and organizations. There are periods of vulnerability, uncertainty, and isolation that push the deeper questions and deeper integration. The above statements can create an illusion that higher development means easier.

An Integral Model, that supports an Integral Life, through an Integral Life Practice (body, mind, shadow, and spirit modules) to manifest in the application of Integral Ecology could certainly provide a draw for those wanting a structure to help them make sense of the challenges we face, with a community of others, motivated to grow, learn and make a difference in the world. These are hefty promises especially for a “text book” and it seems necessary for the sake of integrity then to back them up with sound interdisciplinary research. Otherwise, they are left in the realm of promotion and wishful thinking.

---

<sup>1</sup> This quote was taken from a 3.5 “x 5” enclosure accompanying the book from Integral Life [www.integralLife.com](http://www.integralLife.com)

## What Qualifies as Research, and How Do We Use It?

The authors offer a chapter to describe their chosen form of research, Integral research, which is based on Wilber's Integral Methodological Pluralism "a collection of practices and injunctions guided by intuitions that 'everyone is partially right!' and that everyone brings forth and discloses a different and partial facet of reality" (p. 42). Integral research has been formed in part to respond to the long-term divide between qualitative and quantitative research. The authors, citing the mixed methods work of Johnson and Onwuegbuzie, Creswell, and Brewer and Hunter, see the Integral research bridging this divide as well as matching the four quadrants and eight modes of inquiry. The description of what Integral research entails is very expansive but the definitions do not reflect a level of methodological sophistication that characterizes many sciences. Much of the popularity of Wilber's Integral Model has been ascribed to the fact that it was accessible compared to other material couched in academic and scientific terms. Should the academic and research community seek methods of making their information less sophisticated, more accessible and application oriented? Can research be accessible and still meet the rigor for which it is intended? Can making it accessible be other than oversimplifying it and dumbing it down to meet the layperson's level of experience and degree of commitment? Do we want accessibility at the price of veracity? A new Integral Research Center has been developed presumably with the purpose of dealing with such questions and supporting the field of Integral Ecology. It is reassuring to see that it will be working with two experienced researchers: Theo Dawson of Developmental Testing Service and Susanne Cook-Greuter of Cook-Greuter and Associates. As the authors say, "Reading, studying, and even memorizing Integral Theory's maps and diagrams will not in and of themselves generate integral thinking or integral awareness, actions, or solutions. Such awareness requires considerable effort and developmental achievement..." (p. 62). Yet they also state, "We can deduce the level of consciousness at which people operate by observing their behavior and what sorts of phenomena they encounter" (p. 121). I am hoping that the "considerable effort" can replace this more vague "deducing" and be defined and supported by the quality of research planned for the Integral Research Center, as it seems vague at this point.

## Approaches to Research in Adult Development

How easily research can be misapplied, especially in the field of development, is noted in chapter 7, on page 229. A graph, called Important Lines of Development, relates vertical lines and theorists under these headings: Cognitive (Piaget/Aurobindo), Self identity (Loevinger/Cook-Greuter), Environmental Identity, and Sphere of Moral Concern. The "cognitive line" does not identify that it is also using terms associated with the research of Commons & Richards (metasystematic, paradigmatic, and cross paradigmatic), as well as those by Wilber (vision logic). It also misplaces the sequence of the Commons & Richards stages.<sup>2</sup>

---

<sup>2</sup> With Integral Ecology indicating that it is thorough in its inclusion of relevant material, I was surprised to see only a brief mention in a footnote of the Model of Hierarchical Complexity (MHC). MHC, developed by Commons et al. is a quantitative behavioral developmental theory for examining the non-linear activity of constructing the universal patterns of evolution, development, and stage transitions (Commons, 2008). Through the studies of Dawson-Tunik (2006) the consistency with which it accounts for stages of development, when compared with other instruments designed to score development in specific domains, has been validated. I appreciate the MHC model as it offers a value-free way of

This error and the implications of it were identified in an article published in *Integral Review* (Ross, 2008a). The article was highlighted in the speech regarding the necessity of accurate use of developmental research by Susanne Cook-Greuter at the Integral Theory conference in August of 2008. Raising this again, I hope will not be seen as desire to be nit picky about a single error, as we can all make errors, but to act as a reminder, to us all including myself, of what we are playing with when using scientifically obtained developmental data and making inferences from it regarding human behavior. To aid in that intention I quote the call for accountability voiced by Zachary Stein (2008), a senior analyst for the Developmental Testing Service and a doctoral student in philosophy and cognitive development at Harvard School of Education. In an article called *Myth Busting & Metric Making: Refashioning the Discourse about Development in the Integral Community* he says:

Rich descriptions and explanations of how development unfolds are produced and consumed (especially in the Integral Community) with very little attention to the methods, models, and metrics that make them possible. We love the knowledge, but could care less about how it was made. So the myth of the given rears its head.

What if were we to jettison this myth and adopt a properly post-metaphysical approach to developmental assessment and theory? Things would be different. For example, the issues surrounding the making and refining of developmental metrics (those things which disclose the data) would take primacy over the presentation of various stage models and narratives. We would turn away from the stories describing development and towards the making of the metrics that justify these stories. This kind of intra-disciplinary self-reflection represents a level of methodological sophistication that characterizes many sciences and is especially important for those aiming to generate useable knowledge

The FDA is good example of a quality control agency that mediates between researchers and the lifeworld by bringing attention to the methods and claims being made in the laboratory. If we were to thoroughly dislodge the myth of the given in developmental studies and choose to adopt an epistemologically responsible approach to building and using developmental metrics we could learn from agencies like the FDA. Not any theory and its concomitant interventions should reach the market. We need to be concerned first about what justifies the approach and then about how exciting or revolutionary it is. Right now we are mainly concerned with the latter. How many peer-reviewed empirical studies are published confirming the efficacy and validity of Spiral Dynamics; not stories about its use or antidotes [sic] of success, but studies on the validity of its basic constructs and measures? Answer: next to none. But how popular is this approach? Answer: It is one of the most popular approaches out there and its language is ubiquitous. But this is not just about Spiral Dynamics, comparable criticisms could be leveled at other approaches. In general, we need to refashion the discourse about which developmental approaches are best. (Stein, 2008, n.p.)

---

understanding and measuring the hierarchical complexity of tasks and skills that are involved in effectively responding to the ecological issues that challenge us. A full description of the Model of Hierarchical Complexity and its application is available in *World Futures: The Journal of General Evolution* 2008. Special issue: Postformal Thought and Hierarchical Complexity. Volume 64.

---

Stein's article co-authored with Katie Heikkinen in this current issue of *Integral Review* further develops this call with explicit discussion of how to recognize and apply more rigor.

### **Application: Is there Proof in the Pudding?**

Based on the many promises made in the book of creating comprehensive solutions to ecological issues, readers may assume they will find the proof in the pudding. Even though a cook book may start with a large section on “know your ingredients,” offering lots of information and categories of different oils, vegetable, and flours, one expects that there will follow details of how to combine these ingredients and transform them into satisfying and substantive meals. With the Integral Ecology book, offering 340 pages of different categories and subcategories of almost every theory and theorist in the large field of ecology, plus reporting that Integral Ecology offered the only way of coordinating and integrating such different perspectives, one was led to expect a methodology for effective engagement and application. Disappointingly, there are only eleven pages that include a few bulleted points regarding guidelines, and a brief example of application to climate change and to recycling.

The guidelines, organized under the Who, What, and How format, indicate the need to be inclusive of many perspectives of people, methods, and research, to clarify confusions and seek common ground. These guidelines offer little more than the well-intended but simplistically designed techniques that have been used for decades in community development and public engagement. Working with ecological issues requires engaging the public who are both impacted and impacting these issues and who also hold valid and totally different perceptions as to what makes a good response. Knowing that there are different valid perspectives is an important step, repetitively covered in this book. However, indicating how to actively work in order to transform these differences — the necessary next developmental step for creating systemic responses — is disturbingly absent. For example, although the authors indicated that “Arguably the most pressing issue facing humanity is the predicted occurrence of global climate change” (p. 341), the only aspect they chose to mention under the heading *An Integral Approach to Climate Change* is a for-and-against debate occurring in the U.S. as to the validity of the existence of climate change. This plus the 24 questions used to explore the topic is included to model, yet again, that many perspectives are valid and need respect. This reliance on the “everyone is partially right” approach seems to indicate that the Integral Ecology bus has driven us right into the green swamp of relativism. It is an inadequate response to meet “the most pressing crisis facing humanity” which needs, as do all complex issues, further metacategorically designed process steps to move us out of such polarity and inertia into considered decisions leading to comprehensive actions.

After seeing the importance placed throughout the book on being sensitive to and including as many perspectives as possible, I began to wonder what really was their definition of “integral.” I went back to the beginning of the book where they quoted Wilber as saying “the word *integral* means comprehensive, inclusive, non marginalizing, embracing. Integral approaches to any field attempt to be exactly that: to include as many perspectives, styles, and methodologies as possible within a coherent view of the topic” (p. 5). So that is what the book has done: included, labeled, organized into many categories a rich list of ingredients i.e., a *horizontal* complexity.

Integral approaches to me are not just naming and appreciating multiple perspectives, styles, and methodologies but actively working with their differences, that is, engaging the *vertical* complexity in such a manner so the dissonance creates integration at a higher, more complex level. This active engagement to support the vertical complexity requires a developmentally designed process. Although the authors briefly indicated that practitioners of Integral Ecology would require a “meta-discourse” they spent no time in exploring what that might be. Possibly they are not aware of a whole new field that combines the fields of civic engagement, specifically that of deliberative democracy, with adult development and political development. The need for this field, and for a pedagogical approach that supports its application, has been articulated by Chilton (2003), Inglis (2007a), Rosenberg (2002, 2004), Ross (2007, 2008b-c, in press), and Ross and Commons (2008). It holds promise of providing the alchemical processes for integrally *activating and elevating* such ingredients as AQAL is integrally *observing and categorizing*.

Ecological issues require public interactions and actions to resolve them. Therefore we need processes to support these interactions, where the public can weigh out the costs and consequences of holding different perspectives, and taking different actions that support what they collectively consider to be most valuable. This fundamental basic practice is called public deliberation and can be designed to meet the developmental requirements for responding to complex issues. Further expansion of this assertion would require a separate article. Information on the research and methodology of such a process usable for addressing ecological issues, or any complex issues, is available at <http://global-arina.org/TIP.html>, which includes a bibliography. Had it been available for the communities described in the three case studies, it would be interesting to discover if this process might have complemented and potentially accelerated the work of addressing multiple needs and multiple perspectives discussed in the cases.

## Conclusion

Integral Ecology is a big book that I believe is twisting and turning, trying to grow up and out into the world through a confining, static model. As a resource book, it is very valuable because it includes descriptions and references to many authors and theories, and I will keep it on my bookshelf for that purpose. As a textbook, I would hope it would be offered with a range of other theoretical and well-researched material for students to consider without bias. For those already embracing the Wilber Integral Theory I assume it will be very helpful to furthering their understanding of that model and how observations and inquiry regarding the various perspectives of ecology can be seen through that lens. As for application, it offers a broad method for observing and including multiple perspectives but lacks a process for us to actively engage with each other and with the critical ecological issues of our time in order to build capacities for systemic social change.

## References

- Chilton S. (2005) Defining political development: 2<sup>nd</sup> Ed.  
<http://www.d.umn.edu/~schilton/Articles/DPD.html> Accessed May 5, 2009.

- Commons, M. L. (2008). Introduction to the Model of Hierarchical Complexity and its relationship to postformal action. *World Futures: The Journal of General Evolution*, 64(5-7), 305-320.
- Commons, M. L., Trudeau, E. J., Stein, S. A., Richards, F. A., & Krause, S. R. (1998). Hierarchical complexity of tasks shows the existence of developmental stages. *Developmental Review*, 18, 238-278.
- Edwards, M. (2003). The depth of the exteriors, Part 1: Wilber's flatland <http://www.integralworld.net/edwards12.html> Accessed April 15, 2009.
- Inglis, J. (2007a). Matching public interaction skills with desired outcomes. *International Journal of Public Participation* 1(2), 2-7.
- Inglis, J. (2007b). Reactivity to climate change. *Integral Review* 5, 277-278.
- Inglis, J. (2008a). How then do we choose to live? Facing the climate crisis and seeking the "meta response." *Integral Review* 6, 100-107.
- Inglis, J. (2008b). Evolving to address global climate change and the scale of public interactions. *World Futures: Journal of General Evolution*, 64(5-7), 498-502.
- Rosenberg, S. (2002). *The not so common sense*. New Haven, CT: Yale University Press.
- Rosenberg, S. (2004). *Reconstructing the concept of deliberative democracy*. University of California, Irvine: Centre for the Study of Democracy. Accessed December 22, 2004. <http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1031&context=csl>
- Ross, S. N. (2007). Effects of a structured public issues discourse method on the complexity of citizens' reasoning and local political development. Dissertation Abstracts International, B 68(02), UMI No. 3251492.
- Ross, S. N. (2008a) Using developmental theory: When not to play telephone games. *Integral Review* 6, 31-46
- Ross, S. N. (2008b). Meta-intelligence for analyses, decisions, policy, and action: The Integral Process for Working on Complex Issues. In M. Tovey (Ed.), *Collective intelligence: Creating a prosperous world at peace* (pp. 213-223). Oakton, VA: Earth Intelligence Network.
- Ross, S. N. (2008c). A future society functioning at the paradigmatic stage? *World Futures: The Journal of General Evolution*, 64(5-7), 554-562.
- Ross, S. N. & Commons, M. L. (2008). Applying hierarchical complexity to political development. *World Futures: The Journal of General Evolution*, 64(5-7), 480-497.
- Ross, S. N. (in press). Toward systemic societal entrepreneurship: Opportunities, theories, and methods. In J. A. Goldstein, J. K. Hazy, & J. Silberstein, (Eds.), *Liberating our "better angels": Social entrepreneurship, systems thinking, and complexity*. Mansfield, MA: ISCE.
- Stein, Z. (2008). Myth busting & metric making: Refashioning the discourse about development in the integral community. <http://integrallife.com/learn/deep-end/myth-busting-metric-making>. (Accessed April 16, 2009)

**Jan Inglis** has written for *Integral Review*, specifically in the area of climate crisis. She specializes in developmental and integral approaches to complex social issues. She is the director of the Integrative Learning Institute, which offers coaching, consulting, and training to individuals and organizations committed to comprehensive social change. Her background includes community development, adult education, psychotherapy, and art. She is a member of the National Coalition of Dialogue and Deliberation, and a board member of ARINA, Inc.  
Email: [janinglis@telus.net](mailto:janinglis@telus.net)