ANATURE DISCOURSES:
META-PARADIGMS IN LANDSCAPE ARCHITECTURE

PERRON, P. RICHARD, PhD
University of Manitoba, Winnipeg, Manitoba, Canada

1   ABSTRACT

Landscape architecture is about finding new ways to understand and to deal with the complex problems in everyday environments, problems that often result from human actions, needs and desires. Integral Ecology provides us with ways to look at problems of landscape architecture differently, more broadly and systematically and may possibly influence our own approaches towards integrated design theory. Integral ecology questions what we mean by nature, recognizing that we are not always talking about the same thing when we talk about nature.

Integral ecology is a metatheoretical approach to theories of nature. It is about thinking about how we think about nature (ontological in the sense of what constitutes knowledge about nature, epistemological in the sense of uncovering our relationship to specific kinds of knowledge, and methodological in terms of how we go about using different forms of knowledge). Its goal is to unite, coordinate, and mutually enrich knowledge generated from different disciplines and approaches. In their seminal text on integral ecology, Esbjörn-Hargens and Zimmerman have identified over 200 different perspectives on the natural world. These perspectives, range from deeply established disciplinary approaches to very spiritual approaches to the nature of being. Integral ecology is a framework that seeks to "sort through these many approaches and connect them in pragmatic a way that honors their unique insights on their own terms." In this project the studio serves as the setting for sorting through perspectives on nature, by considering what it means to connect them in pragmatic ways for landscape architecture, by considering how perspectives may be operationalized in modeling, mapping and developed into design intentions. Investigations involve using three selected perspectives on nature as part of the directed design inquiry.

1.1   Keywords

Landscape ecology, studio, perspectives on nature

2   INTRODUCTION

In 2014, students of landscape architecture at the University of Manitoba worked on a studio that turned to Integral Ecology and specifically the book Integral Ecology: Uniting Multiple Perspectives on the Natural World by Sean Esbjörn-Hargens and Michael E. Zimmerman, as a strategy for understanding the range of thinking that might influence landscape architecture thinking. Integral Ecology is described as "the mixed methods (i.e., qualitative and quantitative) study of the subjective and objective aspects of organisms in relationship to their intersubjective and interobjective environments at multiple levels of depth and complexity." Landscape architects already use many of these perspectives for deriving meaning about the world. Integral Ecology provides a prism for uncovering the range of "ways of thinking" about nature.

3   A RESEARCH BASED STUDIO

In the studio 15 students were interested in how different perspectives on nature begin to influence design approach and design thinking. The studio was seen as the vehicle for research and follows from the approach to research method described in *Rigour and Complexity in Educational Research: Conceptualizing the Bricolage* by Kincheloe and Berry. "In this process bricoleurs act upon the concept that theory is not an explanation of the world – it is more an explanation of our relation to the world." More specifically the studio would be used to uncover how perspectives on nature begin to work within meaning-making processes that influence design. The studio was conducted in three stages. Each stage is summarized below along with examples of work and observations regarding outcomes of each stage of the investigation.

3.1   Sorting through and connecting perspectives on nature

The studio is the final studio in a Masters of Landscape Architecture degree. Fifteen students took part in the studio. The students were first asked to choose three of the perspectives on nature, to research and describe each perspective. The topics or perspectives would be based upon the student's own landscape architecture research interests and were developed as written essays. From a research perspective, would students converge on specific perspectives on nature?

In the second part of this phase of the studio students were asked to visualize (through 3D fabricated modeling) the integration of the three perspectives that they had chosen.

3.1.1   Observations

A much wider range of topics were chosen than was originally anticipated by the instructor. The topics are listed below where each point represents a student's choices. Rather than a convergence on specific topics there was almost no overlap in the topics chosen.

- Political Ecology/Socialist Ecology/ Architectural Phenomenology
- Terrapsychology/ Catastrophe Theory/Humanistic Geography
- Reconciliation Ecology/ Biophilia/ Ecological Hermeneutics
- Sustainable Architecture/Bioregionalism/Industrial Ecology
- Agroecology/Restoration Ecology/ Horticultural Therapy
- Environmental Ethics/Permaculture/Animal Rights
- Yoga Ecology/Sensory Ecology/Diva Gardening
- Urban Ecology/Place Studies/Design Ecology
- Acoustic Ecology/Ecological Psychology/ Architectural Phenomenology
- Invasion Ecology/Environmental Aesthetics/Cultural Landscape Studies
- Biomimicry/Music Ecology/Clinical Ecology
- Spriritual Ecology/Deep Ecology/Sacred Geography
- Ecological Hermeneutics/ Ecological Modernization/Animism
- Goetheian Science/Plant Neurobiology/Eco-linguistics
- Chaotic Ecology/Ecosemiotics/Ecological Phenomenology

The modeling of the integration of perspectives brought about a number of realizations specific to the students' understanding and emphasis. Topics were often grouped around related interests, where specific ideas would dominate the form. The models began to reveal how different areas of knowledge would easily lend themselves to modeling, while other areas could only be represented through metaphor

or with respect to specifics of the area of knowledge.

Figure 1. 3d Print Model by Frank Choi: environmental ethics/animal rights/permaculture. Metaphorical representation of integrated living systems.

Figure 2. Model by Carmela Bul-Lalayao: terrapsychology/human geography/catastrophe theory. Discs relate to a wide range of cultural archetypes, whereas model form and deliberate lack of stability influenced by catastrophe theory.

3.2   How perspectives may be operationalized through mapping

Students were asked to "find" a site for the investigation of design inquiry that would include and allow for design investigations working from the three perspectives on nature. The sites were to be of a large scale, consistent with projects that may be considered "landscape urbanism" projects, and students were asked to consider the notion of liminal spaces, i.e., spaces that are often contested or neglected. Much of the work in the second phase began with geographic information systems (GIS) analysis and

then considered in terms of actor network theory. What actors are operating on the site, how do they assemble, how do they interact? How do the perspectives on nature bring agency to the design thinking? This analysis was compiled into using a range of "eidetic imaging" techniques.

3.2.1   Observations

The introduction of actor-network theory into the project allowed students to consider a wide range of "actors" within the landscape. Whereas design projects often begin by privileging the agencies of human actors in articulating design problems, actor network theory places an equal emphasis on non-human, living and non-living, actors. This may be about the agencies of other species, of different forms of matter, and even the agencies of techniques (i.e., mapping, modeling, simulating…), or in the case of the studio, the agencies of the selected perspectives on nature. In this way the perspectives on nature were used to set limits or parameters on the design discussion. So for example, a perspective such as plant neurobiology might privilege the agencies of plants, i.e., plant behavior and responses to material and phenomena; whereas spiritual ecology may be focused upon developing individual understanding from systems of traditional knowledge rooted in place. In each case the site mapping and site selection would be based upon careful considerations of agencies that emerge from the selected perspectives. What clearly emerges in this phase of the work is that one's perspective on nature can serve to limit the scope of the problem (breadth of the investigation) in exchange for increasing the focused complexity of the problem (depth of the investigation). As one begins to integrate the perspectives, combining actors of different types and allowing for the intermingling of different agencies, there arises the potential for greater confusion, and greater creativity. For some students this would be overwhelming, causing them to privilege one perspective over another, while others understood this as an opportunity for greater experimentation with the meanings derived from intersecting priorities.
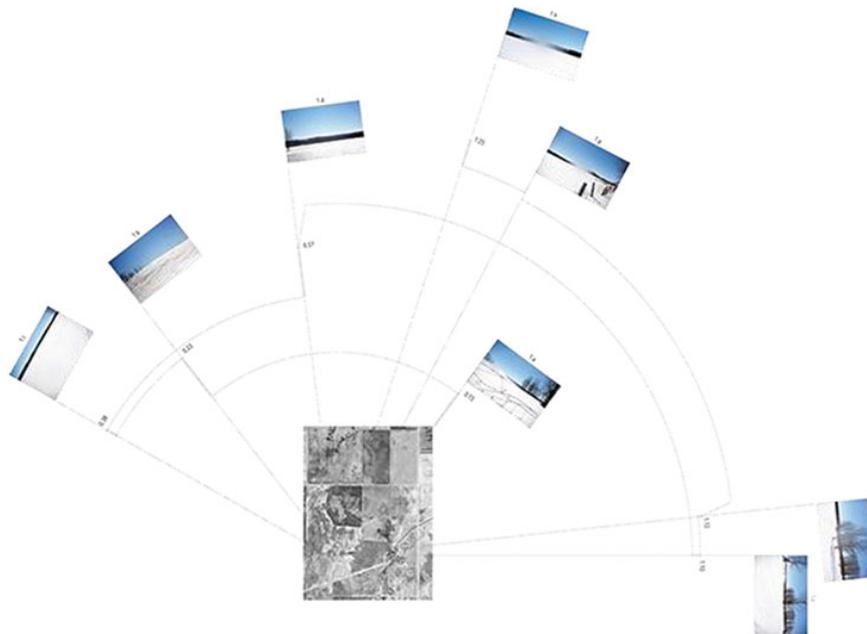

Figure 3. Cinemetrics study Kaleigh Lysenko: plant neurobiology, ecolinguistics, delicate empiricism (Goethean Science). The use of cinemetric drawing attempts to approach the moment between perception and action.
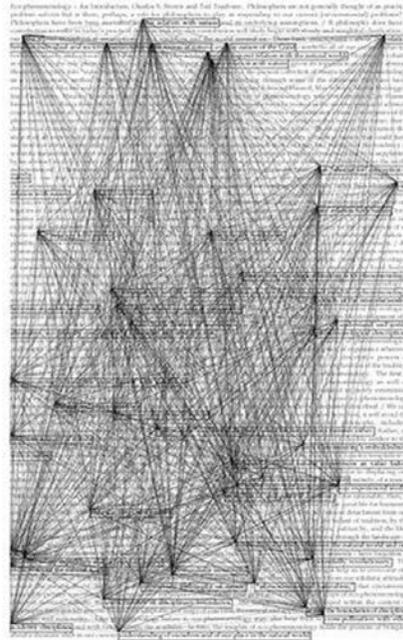
Figure 4. Word map and edited text by Kari Zahariuk: Ecological phenomenology, chaos theory, ecosemiotics. Series of ecosemitic mapping studies.
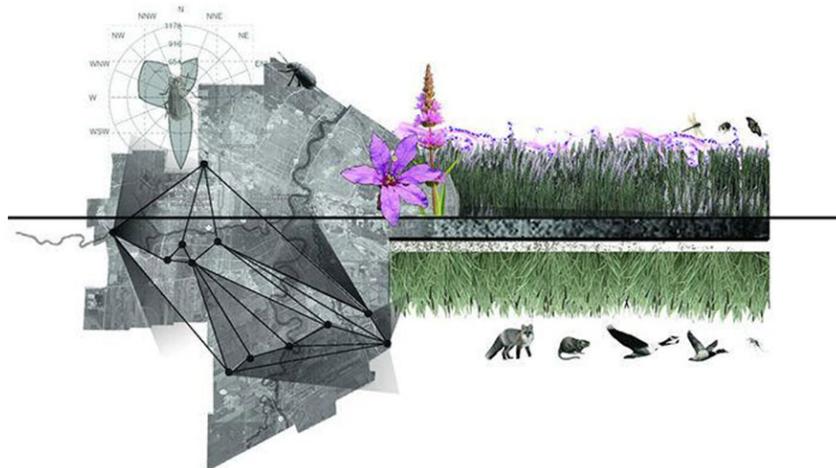

Figure 5. Collage by Stephanie Kirkland: invasion ecology/environmental aesthetics/cultural landscape studies. Increasing complexity with intersecting interests. Understanding the spread of purple loosestrife as cultural phenomena, and the result of an aesthetic preference.

3.3   How perspectives may be operationalized as design intentions.

In the final stage of the studio students were asked to "operationalize" the perspectives on nature and develop design ideas for the "sites" that emerged in phase two. This meant the development of design intentions that were influenced by the perspectives, students were encouraged to, where possible, use all three perspectives in an integrated fashion. Where appropriate the design intentions would begin at a large/regional scale, and then move into meso (middle) scale design proposal. Detailed design development was not a requirement of the studio. Design solutions were strongly influenced by the perspectives, with a large range of integrated approaches to the design processes.

3.3.1   Observations

The final projects could be characterized into three types. The greatest tendency was for the work to be dominated by a singular Perspective on Nature. Perspectives were abandoned in the final design for a variety of reasons, including questions of scale (the macro/meso scale may not be the best fit for certain types of investigation), enfoldment (some practices are more relevant and comprehensive and accessible than others), and difficulties with enactment (certain perspectives lend themselves to design practices that have already been acquired by the designer).
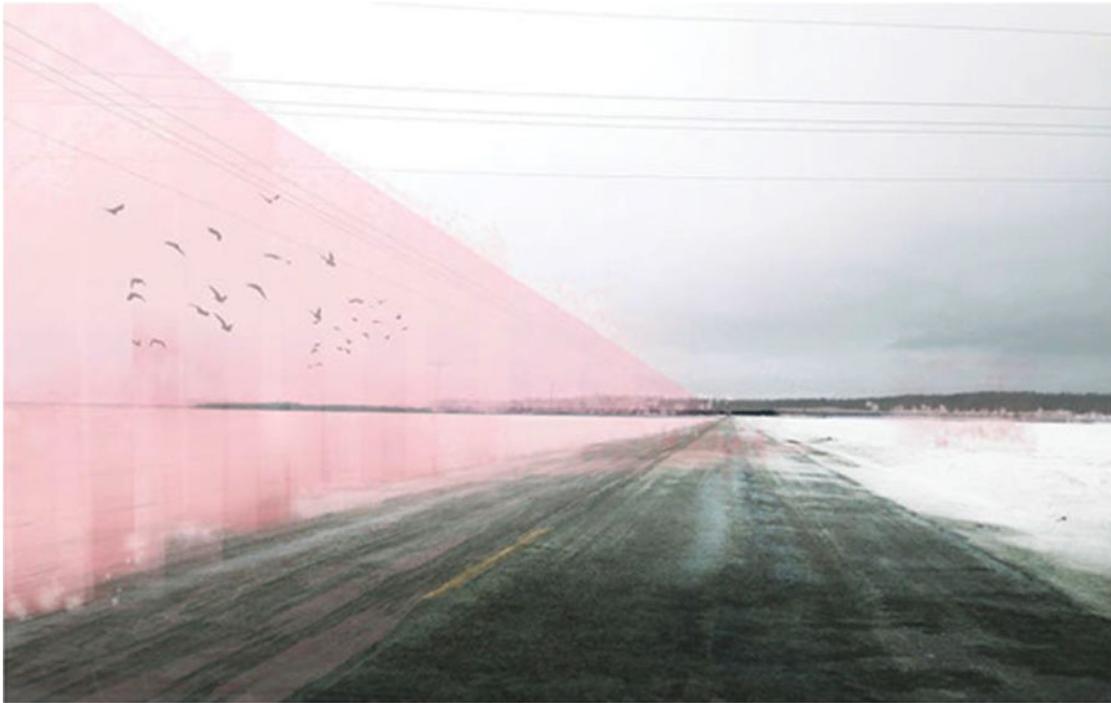

Figure 6. Rendering and edited text by Kaleigh Lysenko: plant neurobiology, ecolinguistics, delicate empiricism. The final project would focus upon delicate empiricism (Goethean Science). The effect of distance inspired a gesture in the landscape that could be seen from far away.

The second type of projects were developed in ways that included all three perspectives, yet the resulting designs consisted of parts making up the whole, where the perspectives were evident in the solution but not necessarily integrated. In these cases the perspectives often co-exist on the site often for didactic reasons (complementary but separate). In other cases the perspectives might appear as devices in form generation rather than serving a clear purpose in and of themselves (ex. ideograms of cultural archetypes as pattern generators on site).
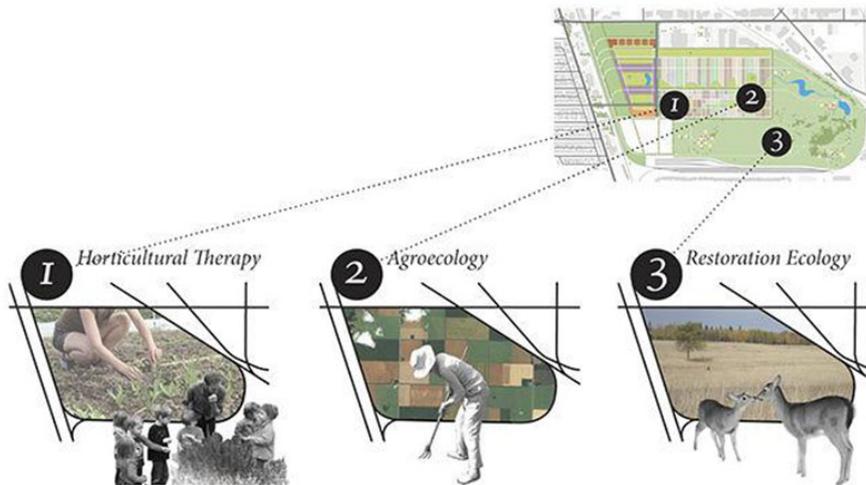
Figure 7. CAD/Photoshop collage and edited text by Nathan MacLoed. Agroecology is represented in the agricultural cycle contained on the site. Agricultural plots are proposed on the remnant concrete pads that were foundations for demolished livestock barns.

Figure 8. Rendering and edited text by Evan Gomez: urban ecology, design ecology, place studies. The design includes the integration of green corridors within existing urban neighbourhood.

In the third type of project the three perspectives were actively integrated. Only a few of the fifteen students were successful in integrating the three perspectives. (Although integration of the perspectives was desirable on the part of the instructor, it was not a requirement.) The flexibility in using perspectives was useful to begin to understand when and why designers take the paths that they do. In the third type of project the perspectives were usually kept "in play" because of their differences in emphasis and the relational meaning that emerged through their integration.

4   FINAL OBSERVATIONS

Integral Ecology provides a framework for landscape architects to develop an expanded view of nature and to critically examine their role as designers. The use of landscape ecology in a studio setting provides students with a broad palette through which they can develop their own design ideas. The meta-theoretical approach to design provides means for participants to uncover individual biases and begin to understand the role that landscape architects may take in multi-disciplinary design and planning studies. The use of meta-theory allows the participant a way to contextualize current practices, and situate them within a broader academic realm. The difficulty arises in that many of the perspectives on nature include complex academic discourses, deep spiritual practices, or contemporary world-views that may be difficult to access within a studio setting. The application of Integral Ecology in a studio setting may result in cursory overviews of the perspectives and lead to work based upon limited understanding of the different fields of knowledge. Integral Ecology provides a window into different ways of seeing nature and how our different relations to nature can influence the ways that we construct meaning.

Figure 3. Model by Gesa Gaertner: ecological psychology/architectural phenomenology/acoustic ecology. Sound room, with narrative of affordances inscribed on a recycled door.

5   REFERENCES

1. Barnett, Rod (2013) *Emergence in Landscape Architecture*. Abingdon: Routledge

2. Esbjörn-Hargens, S. and Zimmerman, M. E. (2009) *Intergral Ecology: Uniting Multiple Perspectives on the Natural World*. Boston: Integral Books.

3. Farias, Ignacio and Bender, Thomas eds. (2010) *Urban Assemblages: How Actor Network Theory Changes Urban Studies.* New York: Routledge.

4. Kincheloe, J. L. &Berry, K. S. (2004) *Rigour and Complexity in Educational Research: Conceptualizing the bricolage*, New York, Open University Press.

5. Latour, Bruno (2005) *Reassembling the Social: An Introduction to Actor Network Theory*. Oxford: Oxford University Press.