PREFACE: EVOLUTIONARY REFLECTIONS

Honeybees are at the top of their evolutionary tree, whereas humans are the most highly evolved species on our branch.

— Gould and Gould, 1988 p. x

All things are global, indeed cosmic, for all things are connected, and the memory of all things extends to all places and to all times. This is the concept of the in-formed universe, the view of the world that will hallmark science and society in the coming decades.

— Laszlo, 2004, p. 153

A META-FRAMEWORK FOR THE CITY AS A WHOLE SYSTEM

Why is it time to provide a meta-framework for looking at the city as if it were a whole system?

In 100 years cities may, like beehives, be classified as just one of two kinds: wild or designed. Wild cities will be like the cities most of us know today — mostly unplanned, self-organizing, ever-evolving, suboptimal habitats of swarming humanity. But will designed cities be more than the cities that are starting to emerge from the deserts of United Arab Emirates or flicker as CAD/CAMs on the computer screens of developers, architects, engineers and visionaries? Artfully crafted, functionally aligned, technologically advanced and culturally and socially hollow? Or will we have to transcend and include what we assume are the design elements for creating optimal human living environments? Will we need to invite into the design space the very cultural and social people who will occupy the design and so should be the primary co-creators of the city?

How old is the oldest city? Depending on how you define a city, it would appear that the oldest cities date from 3000 to 5000 BCE (Andranonovich & Riposa, 1993; Braudel, 1987; Trager, 1979) and are located in the Middle East (Byblos, Hebron, Damascus). What do we know about some of the lost cities of mankind? The cities from the Mayan culture, Pacific Islands, even the fabled Atlantis (Diamond, 2005; Wright, 2004)? What can we learn about the nature of cities from the nature of man? If the nature of man is self-organizing, evolutionary, developmental, complex, adaptive and co-constructed with his environment, then how does the city reflect this nature holographically (Graves, 2003; Miller, 1978)?

Wild or tame, lost or found, self-organizing or designed, the functionality of the city may have become more of a danger than a service to mankind. We have created megalopolises in excess of 20 million people that are not only impossible to manage or sustain, but that have become massive heat-generating sinks that are changing global climate and sucking up resources at such a rate that they are decimating the ecology in which they are situated (United Nations Human Settlements, 2005; Wackernagel & Rees, 1996).

THE NEW SCIENCE OF HUMAN CITIES

At this stage of human existence, where is the new science of human cities? Where are the successors to the great urban development pioneers? Who has taken up the mantle of Patrick Geddes, Lewis Mumford or Jane Jacobs (Jacobs, 1970, 1992, 1994, 2001, 2004; Meller, 1990; Mumford, 1946, 1970)? Why do we seem to know more about the collective lives of ants, bees and termites than we do of the collective needs of our own species (Johnson, 2004)? Are cities simply physical artifacts of human existence? Or aesthetic expressions of human consciousness? Or giant experiments of calamitous trials and errors and dynamical change that can only be interpreted and analyzed with limited insight? How can cities tell us what we want to know most about human emergence, environmental sustainability and global well-being?

What role do cities have to play in closing the gap between the connected and the unconnected parts of the world that Tom Barnett (2005) so clearly identifies in *The Pentagon's New Map*? How will cities continue to change in the world that is emerging under Thomas Friedman's technologically sensitive gaze (2005)? How

will cities develop sufficient resilience to thrive in the face of Thomas Homer-Dixon's converging tectonic stresses of over-population, energy scarcity, environmental damage, climate change and economic instability (2006)?

INTEGRATING MULTIPLE DISCIPLINES AND SCIENCES

How can we integrate the multiple disciplines and sciences to reframe the city as a whole system? I*ntegral* C*ity*, as well as my organization of the same name, tries to wrestle with all these questions by offering a meta-framework for looking at the city as a whole system that optimizes the life of the human species and adds value to the life of our planet. The human species lies at the apex of our evolutionary branch of vertebrates. We are the humans conscious of our consciousness — thus we are not only H*omo sapiens* but H*omo sapiens sapiens*.

The city is the most concentrated form of habitat created by and for H*omo sapiens sapiens*. To explore it within the context of whole and living systems, I use the beehive as proxy from the species that lies at the apex of invertebrate evolution, namely, the honeybee (A*pis mellifera*). On the deepest level of complexity, I apply an integral meta-map that reveals, correlates and integrates more insights about the city than any framework we have developed before. While the beehive creates a kind of parable, the integral meta-map deepens the space by which we can understand the intelligence of the human hive.

I use whole-systems thinking to consider the city in the context of the "informed" and ever-forming environment that is the existential ground for defining its economic and social capacity. In thinking about sustainability as a theory and praxis, I find the need to go beyond mere superficial sustainability to consider the implications of emergence. I assume that the human condition is a never-ending quest, involving continuous adaptation and change. I also assume that the city might be like a hologram, and even a fractal of human systems. A hologram is a three-dimensional representation of an entity produced by bouncing laser light off a photographic plate (Laszlo, 2004, p. 72). A fractal is a repeated non-linear pattern that recurs, at infinite scales in nature, arising from the following of simple rules embedded in the nature of the fractal entity; examples include coastlines, cloud formations, trees, villages, bodies, behaviors, hives and cities.

I use a four-quadrant, multilevel integral framework to look at the city's unique capacities and qualities. The key perspectives of this integral framework

are represented in all the languages of the world as the first, second and third person voices of I, We/You, It and Its; in other words, the massively entangled mind, heart, body and spirit that experiences life as subjectively, intersubjectively, objectively and interobjectively.

This book assumes that city structures and infrastructures arise from and connect to the natural systems of global ecology. But, I want to explore the dynamics of the city's internal human ecology, in addition to the external global ecology. (So I see myself in the tradition of Geddes and Mumford, both of whom demanded the contribution and engagement of the individual and the collective for the vitality of urban life.) My research shows me that effective city leadership requires an understanding of the dynamics of individual and group human development — that it must embrace the intelligences of mind, heart and spirit and not just the physical body (Hamilton, 1999). Leaders everywhere need such understanding to provide appropriate leadership that is effectively matched to the people being led and/or their environmental conditions.

Contemplating the bees that replenish the pollen banks that support their hives, I think of the city as a human hive within the context of energetic flex and flow — not separate from global energy systems, but an integral part of them. So in that respect, I borrow the mantle of Wendell Berry who so poetically articulates the deep connections between culture and agriculture (Berry, 1977). Cities, like beehives, are urban energetic nodes linked within a global energetic body, which we experience biophysically, psychologically, culturally and socially.

Regrettably, in cities we thought we had tamed, we have evolved to a point where fragmentation and separation have created disconnected silos amongst sectors that ought naturally to function as value-adding systems to the whole city system. To our great risk, loss and danger, we have lost sight of the massively entangled interconnections amongst these systems. So a new form of wildness has emerged that seems unmanageable. This book proposes that we reframe and redesign cities with evolutionary intelligences that integrate the ever-shifting patterns of workplaces, education systems and healthcare systems for the well-being of all. It ponders how we might do this naturally, with solutions that flex, flow and change as people and the city mature. Harking back to Geddes (Meller, 1990), it considers that families, parents, communities and cultural systems all play integral roles in creating the conditions for cities to thrive.

Finally, with deep respect for the brilliant systemic insights of the city by the late Jane Jacobs (1970, 1992, 1994, 2001, 2004), the book considers cities to be full of diversity, full of collectives and full of communities, all of whose members are capable of learning how to adapt and more effectively align their energies and directions to produce a coherent, whole, evolving life experience for all citizens. But we speculate that the quality of life for any given people in any given community goes through natural cycles. The ups and downs of these dance-like cycles cast light on how we can create dynamic conditions for the quality of life in the whole city, rather than an ever-elusive steady state.

The subject of the city is attracting a growing number of authors writing about the city they consider to be vital — the Ecocities, Ecovillages, Creative City, Mongrel City. Others are writing about the aspects and functions of the city — Renewable Energy, Transportation (and its antithesis, Sprawl), Green Building, Planning for the Unplanned. Still others are writing about processes and resources for the city — Sustainable Communities, Sustainable Cities, The Natural Step. Each of these voices and perspectives is important to the discourse about the city; each reflects the insights, wisdom and science of vital niches in the city. But none offers us a big enough framework to hold all the frameworks of human systems at the level of complexity of the city.

I*ntegral Cit*y proposes an integral framework as a scaffold to transcend and include the models of the city that emerged from the traditional, modern and postmodern urban eras. As an experiment in applying this integral framework, this book touches only lightly on the massive literature on urban studies from those eras. The review that would recalibrate that literature is a future assignment.

Here I have tried to sketch out how this integral framework can hold the quickly multiplying horizontal postmodern discourses of the city and add to them the vertical, diagonal and relational contexts that make up the Integral City. I propose that the value of the city does not derive just from the survival value to the egocentric individual, nor just to any belonging value of an ethnocentric collective or collectives, nor even just to the ecocentric sustainability value of the region or nation. This meta-framework integrates the multiple disciplines, sciences and arts to reframe the city as if it were a whole worldcentric system that supports the evolution of human consciousness, collaboration and capacity while adding value to Kosmocentric life on planet Earth.

Each chapter explores some aspect of wholeness related to the city and is structured to provide a narrative, sidebar examples of how and/or who is applying the wholeness principles discussed and three simple rules that capture the principles and finishes with three questions for continuing inquiry about the Integral City. Altogether they build an argument and approach for deepening the inner and outer intelligences of the human hive — for practising wholeness in the Integral City.