



October 8, 2019

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From Findhorn Beehive to Vancouver Human Hive: How Evo & Eco Evolve Gaia's Reflective Organ

Introduction

Think Global, Act Local – who in this room has heard this expression before? Most of us. Can you even remember the first time you heard this and where you were? It's not quite a moonshot but it is fundamental to the worldview that embraces the whole earth as one ecology and care for the relationship that human actions have on the local environment.

For sure, when I first heard it, I was somewhere in the vicinity of Vancouver. And it is a pleasure to be back in Vancouver - a city that was part of my "home" region for more than 30 years. In the last 2 years I have taken a (road less travelled) back to the "home" of my ancestors. Scotland.

Scotland is a fascinating place. Land of many philosophers, pioneers and poets. Scotland has spawned many Canadian explorers and has been a founding nation of international entrepreneurs and enterprises without whom Canada would not have emerged in all its dignities and disasters.

Scotland is also the birthplace of the man who coined that phrase, Think Global, Act Local – in 1890 – Patrick Geddes, the inspirator of City Planning, Sociology, community engagement, city revitalization +++

Geddes lived in Edinburgh. I visit there often, because it is close to where I live now – the ecovillage of Findhorn.

How many of you know of Findhorn Ecovillage Scotland? How many of you have been there? How many of you have it on your bucket list??

Objective

Today I want to share some discoveries that I have taken from Findhorn's Beehives back to Vancouver's Human Hive to reframe and reflect on the new paradigm of the city that I have been flirting with for 2 decades. I want to talk about how the journey from Vancouver to Findhorn and back again has called on 2 major intelligences of the Human Hive – namely Evolutionary Intelligence and Ecological Intelligence – and how these are informing and reflecting my belief that cities are critical to Thinking Globally and Acting Locally – in fact I have

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come to believe cities have been evolved by Gaia herself as her Reflective Organs with the capacity to think and act both globally and locally.

Prep/Background

Are any of you CBC Radio listeners? I was brought up on CBC Radio. So, when I lived in BC, I often tuned into CBC Radio – when I was driving my car. About 10? Years ago, I was on the way to the airport to deliver a lecture in Dallas, Texas (don't ask :-0 – I was listening to Anna-Marie Tremonte interviewing James Lovelock – author of the Gaia Hypothesis. They had just recounted the many travails that humans have inflicted on Gaia. Anna-Marie was going to clinch the Lovelock interview with the question, “I guess you don't have a very high opinion of humans?” “On the contrary”, he countered. “Humans are Gaia's Reflective Organs”. His clarity and decisiveness shocked me to the core (made the hair stand up on the back of my neck). I had to pull over to the side of the road. Because what he said immediately translated in my mind to “Cities are GRO and individual humans are the cells in this organ – and our organizations are organelles in it.” Moreover, our cities taken as an interconnected network around the globe are Gaia's Reflective Organ system”.

Proposition

Let me tell you how the beehive and the human hive have led me to that conclusion.

As I have come to know Geddes, I have discovered we have many things in common – including a deep empathy with the natural environment and an admiration for the honey bee. Cities – like beehives - evolve through a cosmology of elements converging and diverging and reforming themselves. Cities emerge through progressive levels of complexity that build on the holarchies of people aligning around homes and hearths (hive queen); then through organizations and communities (specialized roles and functions); and finally, through economies and governance (to achieve objective of 40 lb of honey per year for survival, connection with environment and regeneration).

Maps of Care, Codes of Love

In my journey from Vancouver to Findhorn and back again, I have learned from observing the bees in our ecovillage that each of these levels of complexity can be located on 5 Maps for the 4 roles in the hive and the 4 Voices of the city in terms of Quadrants and Levels. We start with [Integral City Map 1](#). Next , in both the beehive and the human hive, these levels of complexity can be nested into Holarchies of engagement and belonging. This I call [Integral City Map 2](#).



When we shapeshift these maps to reveal capacities, organizing systems and spiritual energies (into [Maps 3](#), [4](#) and [5](#)) we see realities in the beehive and human hive that are co-existing and co-arising. Thus, each map offers an opportunity to reflect on the scale and potentials for evolutionary and ecological change in our human hives. At each level of city system and sub-system we are called to reinvent the capacity and thereby encourage the evolution of the whole city.

One of the ways we can do that is by living what I call the Master Code of Care. For the first time in history we are able to make decisions in our cities that recognize that we must Care for our selves, Care for each Other, Care for our Places and Care for our Planet. When we remember these Cares, we can align decision sets with the evolutionary direction of Life.

When we see the havoc that humans have created on Earth our cities tend to be heaped with special blame because they accumulate and concentrate so much wealth. In Book 3 of the Integral City series, I note the veritable vortex of VUCA threats that we have created as we have drawn down on the planetary layers of resources.

When we plot these threats on a cosmology of the evolution of the Universe it looks something like this.

Integral City frames its view of the world through these evolutionary developmental lenses, seeing that individuals and collectives all traverse lifecycles of maturing that produce capacities and intelligences at every scale of human system from individual to family/team, organization, sector, community and the city. The patterns that these different scales exhibit consciously and culturally reveal the fractalness that Evolution Biologist Elisabet Sahtouris has noticed through the biological and systems perspective. Thus, the five sets of intelligences that cities, as living systems, have evolved keep them alive, connected to their environments (sustainable) and regenerating. The five sets I name are Contexting, Individual, Collective, Strategic and Evolutionary Intelligences

By contrast, when we look at recent city discourses through the lenses of *Sustainable Development Goals* (UN), *Scale* (G. West) or *Urban Crisis* (R. Florida) we can read excellent analyses of indicators, infrastructures and environmental degradation. But we are hard pressed to find how these authors imagine the vital contributions of consciousness and culture to solving complex problems let alone relating them within a context of evolutionary development. In short, these core frameworks do NOT include a developmental dimension.

With an evolutionary “spin”, Integral City proposes that every scale of human system from individual to family/team, organization, sector, community and the city are not developmentally “flat” or “steady state” but emerge and change and shapeshift in all their

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internal and external contexts over time. As a result of this understanding the evolutionary dynamic and its impact on the quality of life in cities, we can open up to ever more complexity and possibilities for the human hive – rather than contracting or shrinking away from such change.

Are Cities Evolving as Gaia’s Reflective Organs?

In early March I had an opportunity to explore the question, “Are Cities Evolving as Gaia’s Reflective Organs?” My audience was an erudite gathering of the online 3 Horizons University (H3uni for short).

I explored the case for the evolution of cities, not as a bane on the Earth, but as a necessary stage of maturing capacity of Gaia’s living system. I shared my evidence from science, thought experiments and practices, inspired from my Integral City Book Series

Macro and Micro Science

I pointed to my early learning in sustainability and ecology that was shaped by the first publications of Bill Rees’ Ecofootprint and Richard Register’s Ecocity. And my curiosity long piqued by James Lovelock, author of the Gaia Hypothesis – that the Earth is a living system. By contrast Elisabet Sahtouris, Evolution Biologist speaks to the micro scale of life on Earth and how the qualities of living systems at all scales reveal self-same patterns or fractals.

Elisabet wrote in the Foreword to the new edition (upcoming) of *Integral City: Evolutionary Intelligences for the Human Hive*, sharing an experience that we have had in common.

Looking down on Earth’s surface from an airplane, whether by day or night, our cities look remarkably like nucleated cells, with their obvious nuclear ‘downtown’ hubs, scattered smaller concentrations of buildings like cell organelles, flowing transport systems, extensions into the surround like the pseudopods of amoebae... I realized that cities were indeed living entities, and now undergoing a rapid evolution comparable to the origins of the nucleated cells they so resemble.

Lovelock imagines that Gaia is evolving for herself a “Reflective Organ” through the evolution of human beings. Sahtouris observes that the process of maturing the human species is passing through early stages of consumption and competition. She points out that as our species matures it will recognize that both these stages consume too much energy (i.e. they cost too much in terms of the relationship of the input of energy to the output of sustainable and resilient results). Sahtouris contends that we are waking up to the energetic equation that collaboration costs much less energy than conflict, wars and pillaging resources. Collaboration is the evolutionarily intelligent behaviour to enact.

Intriguingly when we look at the scale of life on this planet, we notice that cities as human systems are in the center of the space between self and planet. As we look around the world it appears that our cities may be emerging a We-Space or Human Hive Mind – that is, a higher-

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consciousness stage of being/acting/relating/cocreating as a group (or group of groups). Perhaps this is the next stage of evolution for human systems? Certainly, our Integral City Community of Practice is being invited to help individual cities evolve by working directly with a variety of emergent “We-fields.”

***Biomimicry*– Listening & Learning from Bees**

We have found that beyond the sciences of physics, biology, evolution and social systems, many insights accrue to the understanding of cities as “human hives” by studying the biomimicry lessons of the beehive. Effectively the bee hive prototypes the human hive – demonstrating the full set of 12 intelligences (as I have written in Book 1). To summarize the key points that *Apis Mellifera* offers us:

- *Apis Mellifera* as a species reflects Nature’s experiment for 100 million years – thus they are exponentially more mature as a species than humans.
- In their evolution of 100 Million years, bees have developed a “hive goal” to produce 20 kg / 40 lb of honey per year in order to survive. They use sophisticated forms of complexity, communication (not only their waggle dance but through chemical transfers) and course correction to create a “hive mind” that serves the simultaneous wellbeing of individuals and the collective of 50,000 bees in the hive.
- Honey bees have developed 4 Internal Roles and a 5th External Role to accomplish their intentions. The 4 Internal Roles of Forager-Producer, Diversity Generator, Resource Allocator and Inner Judge suggest a universal pattern that humans have also emerged. In our human hives we benefit from the contributions of 4 Voices working together: Citizens, Business/Innovators, Civic Managers and Third Sector. We are learning how to align them for sustainable and resilient outcomes.
- The 5th Role of the bee hive is external. It is called “Intergroup Competitor” and contributes to the advancement of hive resilience by ensuring the species does not eliminate competition but instead transcends and includes it so that the best hives survive to perpetuate the species.
- The bees have a purpose that encompasses their annual production targets and also serves their ecoregion by pollinating all the plants to ensure that their renewable energy resources will be available not just for this year but for next year. In this way bees align Placecaring & Placemaking on two scales – one for the hive itself, and the other for the eco-region with which they co-exist. This is a major lesson for cities to implement – namely to live the same double sustainability loop of not just accumulating wealth but returning it in circular economies to enable the wellbeing of the eco-region(s) that support them.

Although this cross-species learning may seem like a fanciful thought experiment, it becomes much more than a nice story, when we consider the dire consequences of the threat to the bee

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hives that we call Colony Collapse Disorder (CCD). Surely, this aspect of our biomimicry lesson from the bees, must give humans a warning that we pay attention to the Vortex of VUCA conditions that we now face. Because it seems that bees are experiencing an eerily similar pattern to the VUCA vortex that humans have created and is threatening their wellbeing as well as our own .

Findhorn

When we are imagining how to expand or deepen the wellbeing of the human hive, we can also learn from the real-life experiment of the Findhorn Ecovillage.

In Findhorn Ecovillage we describe our whole community purpose this way:

Co-Creating a Thriving and Loving World ...

As a conscious community, we strive to demonstrate a practical spirituality in harmony with nature and play our part to positively transform humanity and the earth.

Living under this banner gives me and Integral City fundamental encouragement that our purpose (to amplify and align evolutionary intelligences for the Human Hive as Gaia's Reflective Organ) resonates with the community that holds sacred the body, mind and spirit every day. With our Integral City ethos of the Master Code: to care for Self, Others, Place and Planet, we feel welcomed to be part of a community who holds "a positive vision for humanity and the Earth, a commitment to deep and practical spirituality and to true ecology – caring for each other and caring for our planet."

Because Integral City itself is a pioneer in re-shaping human habitats, it is a comfort and blessing to be in a community that recognizes, "We are a living, dynamic, practical experiment, building and seeking to demonstrate in physical form what is possible by working together as an intentional Community."

Just as Integral City's Map 5 reveals the power of the evolutionary and involutory flow as the Source and Re-Source of the city, we are inspired by Findhorn's embrace of Beauty, Goodness and Truth as a simple way of life. Inspired by one of their Canadian Co-Founders, Dorothy McLean, they avow, "We seek to create and hold spaces that are caring for the soul – places of beauty where we learn and practice the healing power of love. We seek to be visionary, vital, vibrant and viable on this Earth."

Findhorn has been inspired by 3 guiding Principles for living and working in community:

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1. **Deep Inner Listening**
2. **Work is Love in Action**
3. **Co-Creation with the Intelligences of Nature.**

In relating these principles to Integral City's conjecture that cities/towns/villages are Gaia's Reflective organs, we recognize that each level of complexity in our human hive is holographic – containing and/or mirroring in some way all the other levels (e.g. community can't exist without citizens; citizens exist in some aspect of community). Each is also fractal – reflecting the self-same patterns in all levels.

McIntosh Journey Home

One of the many advantages of living in Findhorn is that we have a continuous stream of leaders from the future who bring their world work to share with us and our guests – such as leaders from Extinction Rebellion, Ecocide/Earth Protectors, and Charles Eisenstein and Vandana Shiva.

In August I had the pleasure to learn from Scottish land rights activist, Alastair McIntosh. One of McIntosh's case studies evoked the impact of Acting Locally from the Land Reform initiative on the Isle of Eigg that transferred the ownership of the island from one individual to ownership and stewardship by the whole community. It is amazing and impressive that one of the outcomes of that seemingly small contained battle has translated into the reality that 3% of Scotland is now communally held. So, the Local Act has become a Global Thought (Meme) that is opening the door to new governance for eco/bioregions.

This appreciation of indigeneity mirrors well the inextricable intimacy that bees have to their land and eco-region. Alastair reminds us that Soil, Soul and Society reflect our capacities for life-giving relationships (as complex adaptive systems).

Another of McIntosh's case studies – the story of how community activism on the Isle of Harris, prevented a construction firm Redlands - now absorbed into LaFarge, the largest infrastructure construction company in the world – from levelling a mountain to quarry the stone for road building. This story also transcends the "Local Act" into the "Global Thought" – because the argument they won was based not just on a court battle but an ethical position that challenged LaFarge to the core, of living into its avowed position of doing no harm and supporting indigenous communities. In this case, the community effectively elevated that Local Act into a Spiritual argument for defending the land that belonged to a people who cared deeply for the land that supported them.

It is interesting that McIntosh's breakthroughs have happened on small islands – which often hold the qualities of a whole city. Like the honeybee hive, islands give us an image, a metaphor,



a reflection for wholeness in the city – that is often lost in our dynamic, super-energized, data-rich, tangle of connections.

The reason McIntosh's stories resonate so strongly with me, is that they seem to reflect the bees themselves as they live by this universal code of Care as a kind of hive mind. If we made all our decisions in the city through this lens of 4 Cares, for the first time in history our cities could reflect how a Human Hive Mind would embrace Placecaring and Placemaking from the bottoms, tops and middles of the 4 Voices to enable us to function/serve as the Reflective Organs Gaia has created us to be.

Beyond Scotland: Evidence for Big Bite & Conclusion

Now we have taken off a big bite considering the evidence of science, the provocation of thought experiments and the exploration of evolutionary maps.

Is it time to look around us and notice the emergence of Integral Cities through growing "Place" Practices ... from community to city to planet of cities to Integral City to Planet of Integral Cities? With just brief nods in three directions, let us consider these examples.

1. One of the first people who demonstrated for me the evolutionary patterns of city maturation was, Integral Geographer, Dr. Brian Eddy (the author of our cosmology map above). He mapped out urban development as in Figure below.

Evidence:

2. The second set of evidence comes from the emergence of city associations, that I have been tracking as Smart, Resilient, Eco and Integral cities as in Figure below.

Evidence (must include ECOcity in text and image):

3. Finally, the third set of evidence comes from Living Cities Russia who have nicely graphed the emergence of the Master Code in the diagram above. Not only that their Living Cities Association is committed to changing 1000 cities by 2030 using Integral city principles and processes – and since I have visited and them 3 times since they translated Book 1 in 2014 - I have seen strong evidence that they have already changed more than 300 of the cities.

Evidence:



Summary

My concluding comments are inspired by the Amsterdam Festival 2019 called “We Make the City”. From here I could conclude

The 4 voices of Amsterdammers Make the City

>The City Makes the Planet

>>The Planet evolves Integral Cities

>>> Integral Cities become a Super-Organism

=>Which in turn becomes Gaia’s Reflective Organ

For by reflectively practising the Master Code of Care not only as individuals but as collectives – especially in human hives - **humans become a super-organism of reflective Care for the Earth.**

When I tell the story of the “Evo” life of Findhorn it includes the planetary care of Geddes Thinking Globally. And when I re- story of the “Eco” life of Vancouver I notice how much Acting Locally has shaped the city of Vancouver to become one of the top 10 most livable cities of the world. Certainly, both storylines have shaped my sense of what it means to be Gaia’s Reflective Organ. Because a Spirit of Care is a necessary quality for any true capacity for Global Thinking and Reflection. And an Active Expression is a prerequisite for an Organ that can Act Locally and serve Gaia’s wellbeing. Perhaps, my journey has opened me up to recalibrating Geddes’ epithet beyond the global into cosmologist Jude Currivan’s more recent variation: **Think Cosmically, Feel Globally and Act Locally?** And with this a reminder that the Journey Home is eternally unfolding?

It is our job to grow, develop and evolve ourselves, not just as individual human hive organs, but as a collective system to provide Gaia a Reflective Organ System – an organ system who can share stories about a Planet of Integral Cities Who Care.

When will this happen? When Will Human Hives Become Planetary Meshwork of Gaia’s Reflective Organs? Whether it is 2119? 2519? 3019? we are on the evolutionary path to that miraculous emergence.

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