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*Evolutionary Intelligences for the Human Hive*    MARYLYN HAMILTON



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MARILYN HAMILTON

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of the integral generation.*



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## MESHING INTELLIGENCE: ENABLING ORDER AND CREATIVITY IN THE HUMAN HIVE

*The whole fabric of honeybee society depends on communication — on an innate ability to send and receive messages, to encode and decode information. . . . Bees use chemical, tactile, auditory and . . . visual messages.*

— Gould and Gould, 1988, p. 47

*It may be, as philosopher Andy Clark has suggested, that our minds are a kludge (or bricolage) of different kinds of intelligence: some intelligent abilities arise out of decentralized and parallel processes, others from centralized and sequential ones.*

— De Landa, 1995

### WHAT IS MESHWORKING?

In her quest for sustainable communities, Ann Dale has long recognized that our systems of governance are fractured by solitudes, silos and stovepipes (2001). So if we are to create a view of city life that is whole and integral, how do we begin to reframe our fragmented, reductionistic, mechanistic, linear view of the city into one that is whole, integrated, natural and flowing? This chapter describes how meshworking enables whole-system capacities in the human hive.

Several years ago, I borrowed the term “meshwork” to describe the work that I do. As noted in earlier chapters, meshworking in the city integrates enabling hierarchies and self-organizing webs of relationships by aligning different capacities, functions and locations so they can be of service to a purpose and each other.

## MERGING THE SILOS

Research into sustainable community infrastructure by Ann Dale, Canada Research Chair on Sustainable Community Development, is a powerful example of how to merge silos by meshing hierarchies. Dale has networked together a progression of hierarchies, intentionally creating a cross-disciplinary research team from academic, NFP, private sector and public sector hierarchies. She has designed e-dialogues where participants represent hierarchies within specialized city infrastructures: energy, waste management, transportation, land use planning and governance. Within a structured online dialogue platform, Dale has catalyzed connections within sectors and across widespread geographies by inviting participants to share their views of leading-edge practices, barriers to progress and solutions to sustainability challenges. She has also made visible observed and potential connections between sectors by archiving the e-dialogues and by documenting over 20 best-practice case studies. (Check out some of Ann's work at <http://www.sustainableinfrastructure.crcresearch.org/>)

Meshworking creates the information highway that makes possible the design and implementation of highly sensitive vital signs monitors that create the feedback loops for attaining a dynamic but stable state of well-being.

Happily for the city, new integrating functionality and capacity is emerging through integral practitioners who I call meshworkers. Like honeybees that are so cosmopolitan, they can live in a myriad of environments and adapt distinctive forms of dialects and hive intelligences. Meshworkers cross the old boundaries, merge the silos and create the space for meshing perspectives.

By attracting the best from two operating systems — one that self-organizes, and the other that can replicate hierarchical structures — meshworking creates second-tier structures that flex and flow. In strict terms, the brain scientists use meshworks in relation to self-organizing neural nets and hierarchies in relation to reinforcing levels of hierarchical operations. It appears that that the brain builds itself by laying down large synaptic highways that become the scaffold of communication corridors from which secondary and tertiary corridors emerge, until a vast “hairnet of axons” covers the brain. Once this hairnet is in place, we have a brain that is able to self-organize an infinite number of connections, thoughts, ideas, innovations and learnings while at the same time behave and direct behaviour in dependable, learned ways.

Some researchers even relate key synaptic connections in the brain, modulated by the major neurotransmitters like serotonin, dopamine, choline, noradrenalin, to sets of values that allow for regulated

brain/body function. These values appear themselves to be modifiable, based on life conditions. The appearance of this modern brain science evidence of intelligence-based values seems to vindicate Clare Graves' (2004) proposition that intelligences are triggered in the brain by dissonance (i.e., constraints) in the environment. It appears that it is the brain's very capability of reorganizing itself and releasing new potentials that allows for the emergence of new values systems. In other words, if the brain lacked its self-organizing capacity, it would be restricted from emerging new capacities. At the same time, if it lacked hierarchical capacity, it would not have the sorting and selection mechanisms that allow it to make survival choices.

What an amazing combination of qualities our brain demonstrates: an organism capable of forever reinventing itself by meshing neural nets and an organism that is able to sort and choose amongst options by producing useful hierarchies.

Moreover, it appears that meshworks link heterogeneous capacities or entities, and hierarchies link homogenous elements or functions. But as values systems emerge, a level of complexity develops where our brains meshwork hierarchies (e.g., connect organ systems like heart, lung, liver) and make hierarchies out of meshworks (e.g., the circadian sequences of the [Chinese] meridian energy system). It is this two-way combination of enabling hierarchal meshes and meshing hierarchies that lies at the heart of my use of the term "meshworking."

Is it possible that the application of meshworking is not limited to brain function? Perhaps it offers a powerful explanation of how communities and cities function? Because communities and cities are emergents and artefacts of human life, what if we considered them to be outcomes of the brains that have created them? What if communities simply reflect the capacity to meshwork hierarchies and to make hierarchies of meshworks? This might be the key to understanding how cities are working and evolving.

### **WHO IS MESHWORKING?**

Meshworking seems to entail both an art and a science. It is tempting to associate the creativity of art with self-organizing systems and the explanatory science with organizing hierarchies. But the practice of meshworking involves both

## INTEGRATING THE PERSPECTIVE

The multi-year dialogue process of Imagine BC, directed by Joanna Ashworth, Executive Director of Simon Fraser University's Morris Wosk Dialogue Center, has been designed to mesh hierarchies by integrating perspectives across a whole province. Ashworth has been able to network a progression of hierarchies — in this case from across British Columbia — to envision the province in 30 years. The five-year process has linked thought leaders from diverse backgrounds around three focused attractor themes: environment/economy, learning/culture, and health/community. For each theme (and year), three separate face-to-face dialogues, which are also broadcast on CBC Radio, attract different stakeholders: about 15 to 20 thought leaders, policy-makers and the public.

Likewise at four regional levels, like Abbotsford in the Fraser Valley, the dialogue process is adapted to capture local voices, stakeholders and perspectives. Thus across the province, the dialogic process of Imagine BC is intentionally meshing hierarchies and using hierarchies to create new self-organizing meshes around the themes and amongst the participants and through the feedback loops. (See Imagine BC's website at <http://www.sfu.ca/dialogue/imaginebc/>)

simultaneously and in the process generates new connections that in turn enable new capacities and/or new values to emerge.

Meshworking is noticeable in my work when I act as an intentional catalyst. Interestingly, in the brain sciences, it is recognized that catalytic function directs a flow of energy-matter through a system so it shifts from one steady state to another. Much of my work involves using information to redirect energy-matter; for example, introducing the work of one person to another whom they have never met, so together they can combine resources and produce something that neither would be able to do on their own. Or achieving consciousness development in individuals and groups in training processes designed to discover complex integral paradigms (like Spiral Dynamics integral, Integral Life Practice or Integral City practices, workshops and inquiries; or assisting clients to reframe linear processes and analyses into systemic, evolutionary perspectives).

Check the sidebars to meet meshworkers, some of whom are meshing existing hierarchies and others who are creating new hierarchies of existing meshes.

### WHY IS MESHWORKING IMPORTANT?

Manuel De Landa (2005) says that “humanity finds it much easier to think in terms of articulated homogeneities rather than articulated heterogeneities.” But he believes it is the latter that hold the secret for a better future. De Landa muses, “Perhaps we can learn from birds — and why not even rocks? — the secrets of non-homogenous thinking.”

## MESHING THE INTELLIGENCES

In Halifax, Nova Scotia, Mary Morrissey, co-founder of the Prior Learning Assessment Center (PLAC), is using hierarchies to create new meshes, by building on an appreciative portfolio development process for capturing individual learning. One of the unexpected outcomes of this life changing experience is that a number of individuals in several small communities have noticed they have made connections beyond the individual level at the community development level. Their self-organizing process has led them to inquire, Why couldn't the prior learning recognition be adapted to community learning? What would happen if we adapted this to the scale of recognizing community capacities for the purpose of developing new opportunities?

Morrissey responded to this self-organizing challenge by meshing hierarchies. She organized a conference and invited stakeholders in community

development from across the community and across Canada. Essentially she brought together in one room representatives of a whole community system (from education, health, private, public [federal, provincial, city], NFP, international). She created a process where participants could explore: what is working for PLAC; what to consider when changing scales; how to energize self-organizing systems; how to springboard from existing hierarchies. Morrissey also mixed the media for the discovery process, combining inquiry, graphic facilitation, PowerPoint content and face-to-face dialogue. Thus she is creating the conditions to emerge community learning from individual learning, by building on the structured hierarchical pattern that has worked for (homogenous) individuals to bridge into self-organizing clusters of heterogeneous community organizations. (You can find PLAC information at [www.placentre.ns.ca](http://www.placentre.ns.ca))

These few (sidebar) examples of meshworking illustrate that the practice can originate from the bottom of a system or the top of a system. In both cases, as the process matures, meshworking catalyzes a shift in the system, so that new capacities emerge and the system reorganizes itself into something more internally resonant and externally coherent with life conditions.

An enormous value of meshworking is that it does not remain in the realms of the objective and interobjective space. Rather, it boldly calls forth the capacities that lie in the subjective and intersubjective zones of the city. These are the domains of intention, purpose and culture. Until we can give equal weighting to these capacities, we will never achieve the vibrant promise of an Integral City.

In a recent Integral City teleconference on meshworking, participants recognized the paradox of meshworking. It requires an understanding of boundaries that contain whole systems, along with simultaneous acceptance of the interconnection of all the systems within the larger systems.

Teleconference participants related their experiences of creating life conditions and holding space long enough for leaders to let go of old ways of doing things so they could create an entirely new approach. This process of dismantling the old so that innovation can emerge often takes a long time (years). It literally entails the rearrangement of the brain, body, relationships, expectations and paradigms. The facilitation of this act of rearranging often requires the use of non-verbal processes (like art, music, dance and other expressive arts) to access collective wisdom and tap into new ways of knowing. One meshworker suggested that this feels like a shift from entropy, where the loss of energy from a system causes it to wind down, to syntropy, where the release of energy from the disintegrating old structure, enables the creation of entirely new patterns.

We have noted above that the both/and approach of meshworking essentially revalues and recalibrates hierarchies. (This is a process of evolving complexity, into what some now call a holarchy — or a hierarchy of hierarchies.) Instead of denigrating hierarchies as outdated organizational forms, meshworking recognizes that healthy hierarchies under-gird all natural systems. In these hierarchies, the multidirectional flow of information, energy and matter is enabled for the well-being of the whole. At the same time, meshworking makes possible the newness that can be injected into a system through self-organizing processes. Through this ever-evolving meshwork emerge transformation, transcendence and transmutation of consciousness, behaviors, cultures and societies.

### **MESHWORKING ENABLES EMERGENCE IN THE HUMAN HIVE**

Let us summarize the value of meshworking in the human hive and anticipate our needs for the Integral Vital Signs Monitor we discuss in the next chapter.

#### **Research**

- Meshworkers can help ordinary citizens to voice the change direction they value with an explicit awareness of the assets, values and capacities they experience as their reality in a changing world.

- Meshworkers can facilitate the mapping, analyses, comparisons and discussions for reconciliation and agreed direction amongst citizens, elected officials, staff and experts.
- Meshworkers can observe the expression of the different change states and ensure that these are considered in designing change processes.
- Meshworkers can catalyze the discussions amongst different sectors and different levels of authority in those sectors.

## Planning

- Meshworkers can integrate intentions of social planning, land use (hard asset) planning and the integration of community education and health-care development.
- Meshworkers can use integral maps as checklists to design balanced change in all the quadrants, levels, scales, holons and structures, preventing abilities to change because of blindnesses and/or blocks.
- Meshworkers are skilled at moving from one scale to another, integrating the fractal patterns that bring resonance, cohesion and emergence of new capacities.

## Management

Meshworkers use the common language Integral City metamaps in order to:

- Open up options on managing conflict, allowing meshworkers to facilitate discussion amongst multiple voices when all can be heard and valued.
- Facilitate policy change across all three levels of government as well as bioregionally and globally. This allows for the potential of pooling funding and resources.
- Translate between multiple interests of many community stakeholders who would benefit from an integrated framework.

Three simple rules for applying integral city principles from this chapter:

1. Catalyze fractal connections within the human hive.
2. Build communication bridges across silos, stovepipes and solitudes.
3. Enable meshes and hierarchies that transform, transcend and transmute capacities.

- Develop mapping strategies for: strategic planning; analyzing group differences; developing communities of professional city management practice; threats; weaknesses; opportunities.
- Ensure multiple perspectives at various scales are taken into consideration amongst diverse groups of people.
- Explore the richness of community in the context of villagizing the globe because it discloses the dynamics below the surface expressions of values.

## CONCLUSION

Meshworkers depend on the relational strength of subjective and intersubjective capacities in the city. They use imagination, courage and powers of attraction. They articulate intelligent designs from the meshing of the diversities in people whose differences and uniquenesses can divide cities into heaps and messes of unarticulated heterogeneities. In so doing they release and reorganize the intelligences that are currently blocked by silos of what De Landa calls articulated homogeneities (2006).

The great contribution of meshworkers may turn out to be their talents of releasing simplicity on the other side of complexity. But, as they do so, they will quickly discover that in order for meshworking to remain effective, meshworkers need feedback and feed-forward tools like Integral Vital Signs Monitors. So that is where we will turn as our last consideration of how to create deeper space for the human hive.

## QUESTIONS

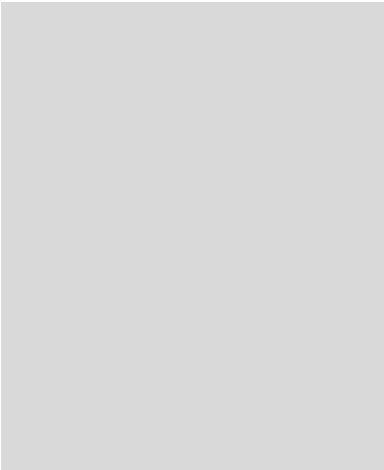
1. How do we recognize a natural and life-giving hierarchy?
2. How do we enable self-organizing creativity that transcends and includes our evolutionary cultural history?
3. How do we become the best translators in the universe so we can build bridges across the memes, silos and intelligences?



## ABOUT THE AUTHOR

*Integral City*

*Evolutionary Intelligences for the Human Hive*



**Dr. Marilyn Hamilton** is a “meshworker” and founder of Integral City, creating conditions for the emergence of healthy ecologies in people systems. She has over 25 years of international experience catalyzing community and organizational change and has written numerous books.

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