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An Integral Permaculture

I've practiced and taught permaculture, at times intensively, for most of the last fifteen years. In that time my perspective on permaculture has changed and evolved, as has permaculture itself. If at times in this chapter I am critical of elements of permaculture, it is not to be negative or to lessen the importance of the discipline, but to examine the points of pain and disappointment that have led me to new understandings and new directions. The same should be true for the movement itself, and I'm writing here with this in mind.

Permaculture was my portal into the world of sustainability and environmentalism. Before I encountered permaculture and the realization that the planet (and humanity with it) was heading for trouble, I lived with a kind of optimism, a sense of acceptance and a general, if ignorant, ease about the world I lived in. Permaculture changed all that. I can remember the first time I heard the word, oblivious to the fact that this one little utterance would radically change my view of the world and define my existence for at least the next twenty years. I was tree planting with a crew of mostly fringe dwellers, alternative folks and other students in remote, mountain wilderness in Western Canada. Simon, a soft spoken fellow with long hair and an eagle feather held in place with a thin leather headband, introduced me to the fateful word. We sat on a log and ate lunch out of dusty rucksacks. I told him about my impending trip to see my father in Australia. He told me I should look into a Tasmanian called Bill Mollison who taught a way of sustainable living called 'permaculture'. He explained the Willing Workers on Organic Farms (WWOOF) network- living by volunteering on other people's organic farms for food and board, and his encounters with permaculture in the Pacific north-west. At that point I don't think I really understood what permaculture was, but it settled in the back of my mind as an environmental curiosity, a talisman as exotic as the fellow who introduced me to it.

I realize now with reflection, that the story of my experience in permaculture is essentially my journey through that environmental portal to a world of somewhat painful awakening and increasing sensitivity to the environmental and social disaster

humanity was perpetrating. After that, I undertook a long, determined and often difficult attempt to make permaculture work as a method of sustainable living. Finally, there was a gradual spiralling back around to a renewed acceptance and appreciation for the society I was born to, our time in history and the wide world with all its foibles and wonders, ugliness and beauty, sustainability and unsustainability.

From Sensitivity to Integration

I'm telling the story here, because I think this renewed acceptance of the world has led to a much more effective approach to sustainability and a renewed appreciation and passion for permaculture. I think of it as the shift from *sensitivity* to *integration*: from the heartfelt despair, anxiety and sometimes anger inherent in environmental awareness to a more full appreciation and confidence in the holistic intelligence at work in our evolving universe and the ways we can work through this towards real and sustainable futures. The rest of this chapter is spent on an exploration of this shift and the nature of what I term an *integral* approach. This is largely based on the work of American philosopher Ken Wilber.

Making the shift allowed me to see that much of my past activity was driven by anxiety and despair, an unrealistic approach to changing the world, and a kind of guilt born of participating in what I thought of as a destructive society. My growing sensitivity generated a lot of turmoil and energy. It was like a rising storm, and I realise now that I was exposed with little shelter and few beacons to safety. Despite the trials and the dangers, it was an essential process. I think it's a process many others are going through and will go through: an increasingly common cultural pattern as the sustainability challenges mount. It is worth bringing awareness to this process and to making it safer and easier for others to negotiate. From where I stand now, this aspect of *people care* is every bit as essential as growing food, designing properties and re-localising economies.

Tagari Farm

When I arrived in north Queensland Australia, I found a copy of the *Permaculture Designers Manual* by this fellow Bill Mollison on my father's bookshelf. It was fascinating. I was interested in design as I'd studied architecture after my

undergraduate degree in literature, but the conventional design disciplines paled in comparison to sustainable design using wind and water, earth, plants and animals. I found a weekend introductory course and shortly after that I drove down the east coast of Australia to Tyalgum in northern New South Wales for my foundation ten-day Permaculture Design Certificate course at the Permaculture Institute with Bill Mollison himself.

At Tagari Farm Bill indoctrinated some 50 of us into permaculture through a ten day process of story, vision, knowledge and ecological understanding, passion, humour and genius that I've never encountered since. Not only that, but the amazing people I met on the PDC inspired me and made me feel like I'd found my community and my life's work. I was hooked. The day on patterns in particular gripped me in a way that I couldn't quite describe. I was going to be a permaculturist. A few months later I arrived back at the Permaculture Institute determined to take up a licence to do a sustainable forestry project as a participant in what was loosely described as the Tagari share farm.

Tagari Farm was an interesting and exciting place. Bill would draw amazing folks from all over the world. Waves of permaculture design course participants would wash in and out, and over time a small group of people assembled to take up licences on the share farm. I say assembled, because beyond an explanation of the share farm concept in the course or the occasional loose invitation, there was very little supporting structure for actually joining the share farm or getting a licence. One simply had to make one's way as best one could. Despite the obstacles and lack of support, the group that was to form our period of experimentation at the Permaculture Institute's Tagari Farm, took shape. Up to a dozen of us were developing projects in market gardening, tropical fruits, fowls, rabbits, aquaculture, earth works, permaculture training, design, forestry, tree crops, bamboo, tours, education and publishing.

The Tyranny of Structurelessness

In retrospect, this experiment couldn't have ended in anything but failure. Although most of us lived nearby, off the farm, the social dimension to our lives there was intense and our project coordination dysfunctional. There was an implied

understanding that all we needed to make permaculture work was our shared ethics, principles, practices and a rugged commitment to earth care. This belief was held up as an almost magical elixir for organizational development. This strategy proved woefully inadequate and things degenerated badly over time. Attempts by some of us to organize ourselves and to create some structures and processes were not supported. We suffered from the 'tyranny of structurelessness': a rejection of all structure in social affairs because the existing structures in our society were seen to be controlling and destructive.

I can remember one quite funny, but at the time quite terrifying, episode where a few of us gathered around Bill's kitchen table to put forward a proposal from some of the share farm licensees. A dark look crept over his face as he read it, and with the full force of his personality (which for anyone who has felt it, will, I think, be counted as one of their more memorable experiences), proceeded to challenge our initiative as an attempt to take over the functions of the Permaculture Institute. Function, or a lack of it, was exactly why we were there, but there was obviously no arguing the point, so we retracted the submission, opened a bottle of port and listen to Bill tell us stories until late into the night.

I have observed similar struggles with structurelessness in many environmental projects and sustainability experiments over the ensuing years. Inevitably the lack of effective organization leads to breakdown in the group and ends in chronic dysfunction or complete failure. I liken this to trying to operate your body without any bones. The end of our few years at the Permaculture Institute was punctuated by the tragic suicide of one of our number. Almost all of us left shortly after that devastating event. Previous and subsequent groups suffered more or less the same fate. What was Tagari Farm now stands overgrown, empty and abandoned to this day. In my view, all the good effort and resources put into earth care were largely undone by a failure of people care. A project meant to be a leading example of permaculture practice suffered the ignominy and irony of being unsustainable by virtue of not developing its own stated second ethic.

The Burn-Out Mill

Thus began my process of facing up to the unhelpful myths and dogmas of permaculture. Rather than rejecting permaculture outright or, alternatively, hiding these truths, I wanted to explore what it would take to get permaculture theory to translate into effective practice at the community level. Could it be used to demonstrate a sustainable way of living? Was it possible for the theory to translate into reality? Could the claims, especially the more grandiose claims made by some in permaculture, be supported? Could we live up to these expectations? Could it be used to transform our society in practical and enduring ways? Were we fooling ourselves?

I think it is fair to say that our critics have keyed in on this lack of effective practical demonstration: initial enthusiasm and over-exposure all too often giving way to unsustainable outcomes. Despite the large number of permaculture adherents, in the wealthy Western countries at least, where permaculture is *the* designated sustainability strategy, successful practical demonstrations beyond the of the level of the family property are relatively rare. The ones that do persist are often short lived, sometimes only cosmetic variations on mainstream living, or obviously unsustainable. Many entering permaculture are underwhelmed when they go looking for the examples to meet their expectations. Then there is the grim battle in chronic dysfunction to make permaculture projects work though unsustainable means. This is another unfortunate pattern in environmental and sustainability work in general and permaculture in particular. I call it the 'burn out mill'. Whether we acknowledge it or not, we are famous for it: individuals burning out to prop up something that just isn't sustainable in-and-of-itself. Or, using wave after wave of people recently indoctrinated, motivated more often by despair than by hope, to work in permaculture projects where their energy is consumed and their expectations go unmet. These people then either return to conventional life or, ignoring a dissonance between theory and practice, perpetuate the myths in their own permaculture work.

I'm pointing out these negative aspects of permaculture, not because I think all permaculturists practice them, or that initially they can entirely be avoided, but because they are elements of our discipline that lack integrity. We should

acknowledge them and reform them if we are to make a more effective contribution to sustainable transition. The end cannot justify the means. We cannot, on an ongoing basis, demonstrate sustainability in unsustainable ways, interpret this as success and expect to be taken seriously. Here, I do need to pay tribute to those practitioners who do have the enduring functional examples and to acknowledge all their hard work and commitment to getting it right.

Permaforest

In spite of my experiences at Tagari Farm, or perhaps because of them, I embarked on a permaculture project to integrate earth care more fully with people care and to try and resolve some of the other challenges I had encountered in my early attempts at practicing permaculture. In an initial partnership with another Tagari participant, Gary Cowan, we located a suitable property. The sustainable forestry enterprise started at Tagari Farm became a successful little tree planting and reforestation contracting company. In short order I re-formed it into Permaforest Trading Trust which funded its slightly younger twin, a charitable sustainability education organization called Permaforest Trust. This dual trust structure, a trading trust and a charitable trust, is straight out of Chapter 14 of the Designers Manual. Bill Mollison gave me a copy of the Permaculture Institute's trust deed to use as the basis for Permaforest Trust's deed. I am the Trustee of both trusts and manage them by their deeds, which mandate trading and sustainability education respectively. My tree planting contracting business grew and funded the Permaforest Trust. It became the owner of the 170 acres of undeveloped farm land and forest we had located. The land was at Barkers Vale in NSW, half an hour west of Wollumbin (Mt Warning), on the lush and rugged sub tropical volcanic back slopes of the old shield volcano's caldera.

In 1998 Permaforest Trust began to use the funds gifted to it by Permaforest Trading Trust to establish a permaculture education centre and demonstration farm on the land. This centre was referred to as Permaforest Trust. The idea was to create an educational community- a residential centre where people could live together temporarily and learn permaculture through modelling sustainable rural living. At first the number of participants was quite small but as we built the accommodation and

common areas and planted gardens and trees, the numbers grew. Eventually we built up to an average population of about 20 students, managers and visitors living and working at the centre. After much hard work and persistence, based in large part on an integral perspective, we managed to create a stable and functional centre where we demonstrated a reasonable attempt at permaculture community living. Our resource use was much lower than most Australians, our permaculture practices were moderately productive and were having a beneficial effect on the land. In the end, I think, it was actually much better than that, and we did manage to achieve something quite special and unique in the way we practiced permaculture, particularly with regard to people care and the community dimension.

There were two reasons why we ended the experiment at this point. Firstly, after a period it was very difficult to improve sustainability indicators. We were remaining dependent on the goods and services of a consumptive and energy-rich economy. Secondly, the energy and resources required to facilitate the human dimensions of the project made it unsustainable for those of us managing it. My experience is that this is something of a pattern and as such I couldn't see that it was a recommendable strategy to scale up. In its own way it was another unsustainable attempt at modelling sustainability. This is not necessarily a bad thing if recognized, and it may be that this paradox holds an important clue for developing more effective perspectives on sustainability into the future. That is, it may be more effective to look at sustainability as a process rather than a destination: an ever-receding goal at the edge of endeavour.

The period of experimentation with the educational community at Permaforest Farm lasted roughly a decade - from 1997 to 2007. Initially it was my home and that of a few other committed participants, but as the numbers grew and the centre took shape, so did the challenges. Earth care, in all its various manifestations - gardening, other elements of permaculture design, organic agriculture, sustainable forestry and bush regeneration primarily, while not without problems, was not our main challenge. The recurring limitations to learning and living permaculture were the people. While I tried to put a special emphasis on people care strategies based on my experience at Tagari farm, I still managed to seriously underestimate the magnitude of this challenge. It wasn't until I developed a more integral approach using strategies for

the ‘inner landscapes’ of *self* and *culture* to the same degree that my permaculture training had taught me to focus on strategies and techniques for the ‘outer landscape’ of *nature*, that we really started to make progress.

An Integral Approach

If I had not come across the integral framework created by Ken Wilber, it is unlikely that the Permaforest project would have reached such a satisfying conclusion. Wilber’s work helped me understand a whole range of challenges in my permaculture work from a new perspective and to solve them in novel and effective ways. Before we can move on to the practical examples of how an integral orientation helped us meet the challenges at Permaforest Trust, we’ll have to spend some time on a thumbnail sketch of some relevant aspects of Integral Theory. I realize that a brief treatment of some seemingly academic aspects of integral theory may initially seem overly technical and unnecessarily abstract, but I would ask the reader to persevere. Alternatively, you may skip to the summary at the end of this section, or read it knowing that initially a comprehensive understanding is not necessary. I’m including it here because I think some readers will want a basic understanding in assessing its usefulness. While the theory may appear quite abstract initially, it becomes much more concrete as it is unpacked and related to practical situations. I’m outlining the framework here as a very effective practical tool. The interested reader may wish to consult some of Wilber’s works cited in the reference section.

David Holmgren, co-founder of the permaculture concept, mentions in his writings that permaculture is part of the *postmodern* cultural emergence. With its foundation in the new, more holistic systems sciences, including ecology and systems ecology, its counter culture adherents, radical self-reliance, questioning of industrial institutions and processes - especially green revolution agriculture- as well as its sensitive ethics, permaculture can be counted as one of the most influential grass roots initiatives of this period. The *modern* industrial era started to emerge some 400 years before the postmodern, the *traditional* agricultural period had its beginnings up to 10 000 years before that, while the *original* period of human history

had its beginnings some hundreds of thousands of years before that, indicating that the pace of cultural development is speeding up over time.

Only 40 years into the postmodern period, it is thought by some that the post-post-modern, or 'integral' era is now emerging. Among many other things, postmodern culture can be credited with sensitising us to the diversity of natural elements, their interconnectedness and our own dependence on these life systems, but like the material gains of the economic industrialism of the modern period before it, this ecological and social sensitivity is limited in its capacity for sustaining the human project. At this time in history, personal, cultural, ecological and social dynamics are accelerating and new challenges requiring new ways of looking at the world are already upon us.

The Pattern That Connects

Integral Theory, because it is a philosophy that can include a place for everything, and because it is comprehensive enough to entirely reject nothing, is often referred to as 'the pattern that connects', giving it a strong association to permaculture through its own relationship with pattern understanding. A postmodern view sensitises us to the interconnected diversity of elements in the natural world, but it is an *integral* orientation that is critical for identifying the patterns that shape these parts into coherent designs, again demonstrating a resonance with permaculture as a design discipline. Permaculture aspires to a more integral approach through the recognition that sustainability practice must contain ethics as well as design techniques. That is, it must work with values which reside in the *inner* landscapes of human experience as well as the material *outer* landscapes of natural ecologies and human economies. Despite these similarities, permaculture has not yet emerged as a fully integral discipline. I think the aspects of Integral Theory outlined below can contribute to a more fully integral permaculture and that this is an interesting, and in my case, very helpful direction to head with the practice of sustainability.

Holons

Integral Theory starts with the now widely-held systemic or 'design thinking' understanding that everything is both a part and a whole at the same time, or a

‘holon’. Whole atoms are parts of whole molecules, which are parts of whole cells, which are in turn parts of whole organs, which are parts of whole organisms in the ongoing structuring of more complex forms. This view of nature as a kind of nested hierarchy or ‘holarcy’ is now common in the ecological and systems sciences, contributing an essential understanding to general eco-literacy.

Here, Integral Theory adds the view that just as partness and wholeness are limited perspectives on one integrated part/whole, so too is its status as either a material object or an aware subject. In fact, any holon is an integrated occurrence with four main aspects or *perspectives*: partness (*individual*), wholeness (*collective*), objectiveness (*exterior*) and subjectiveness (*interior*). (See Figure 1).

Different cultures hold views that reality is either inner experience or outer objects, fundamentally material or ultimately spiritual; basically just matter or essentially mind. The integral view is that it is both, and that combined with the view that things are also parts and wholes these four aspects are just different perspectives on one thing. These four aspects are often referred to as the four *quadrants* of a holon. Add to the concept of the four-quadrant holon the idea that more complex forms evolve in a dynamic fashion through the integration of less complex forms and we have the bones of an integral view: parts and wholes; insides and outsides; developmental evolution.

I-Space

If we look at the intersection of the *interior* perspective (subjective inner aspect) and the *individual* perspective (part aspect) of a person we could call this the ‘self’- one’s own subjective experience or awareness, and all of the related thoughts, emotions and sensations that manifest there. In permaculture there is a nascent recognition of this perspective as Zone 00.

We-Space

If we look at the *interior* perspective (subjective inner aspect) of the *collective* perspective (whole or community aspect) we get ‘culture’- a group’s shared interiorities like ethics and values. In permaculture this perspective is honoured by the ethic of ‘people care’.

Eco-Space

Where we look at the *exterior* perspective (objective outer aspect) of the *individual* perspective (part aspect) we get a view of the characteristics and behaviours of that individual element of nature; where we look at the *exterior* perspective (objective outer aspect) of the *collective* perspective (whole or community aspect) we get a natural systems perspective represented by both ecologies and economies. In permaculture this perspective is honoured by the ethic of 'earth care' and the main principles and practices of sustainable design in agriculture and the built environment.

For the purposes of this discussion we can place both quadrants in the right hand half under the name 'nature' (see Figure 1). *Self*, *culture* and *nature* are called the 'Big Three' in Integral Theory. In my permaculture work I often refer to them as 'I-space', 'we-space' and 'eco-space'. These are the three major domains of human experience and therefore it is essential to include each of these perspectives in any initiative. Just this one seemingly simple realization provided essential and powerful strategies for some of the most serious challenges we faced at Permaforest Trust, as we will see.

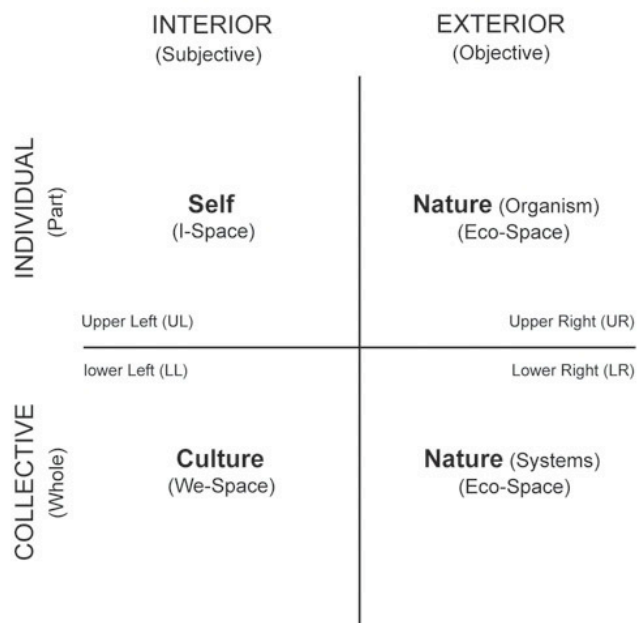


Figure 1. The four quadrants of a holon. After Wilber

Body, Mind and Spirit

The *evolutionary* aspect of Integral Theory translates into the view that everything develops in stages, and that each new stage both transcends (goes beyond) and includes (is actually built from) the elements of the level before. Permaculture tells us that careful observation of any natural process will reveal a pulsing dynamic of identifiable *stages* of development, whether in the growth of a plant, the implementation of a design or the succession of an ecological system. For instance, we can identify the ecological succession of a forest ecology from pioneer stage, to early secondary, late secondary and finally to the mature stage. What is important here is that it is impossible to exclude or reject anything from the previous levels of development without destroying the whole. The whole is *made up of* all previous stages. Pioneer species are embodied in the soil fertility of the later stages. It would be impossible to skip this stage or to remove it from the process. The trick is to understand how pioneering processes work and when and how to use them. In permaculture for instance, we use the principle of accelerating succession through the pioneer stage or alternatively maintaining a system in its productive pioneering phase. The idea is to work with pioneer dynamics and to make the pioneer stage as functional as possible in service of the whole process. This understanding of stages is a core eco-literacy in permaculture, but in integral work the principle is used more widely; this evolutionary dynamic is translated from eco-space into we-space and I-space.

If we take the evolutionary unfolding from a big picture perspective, it can look something like this: where conditions in the realm of matter (the physiosphere) are favourable, life can arise; where conditions are favourable in the realm of life (the biosphere) mind can arise; where conditions are favourable in the domain of mind (the noosphere) then spirit can arise (the theosphere). In short, the process of evolution goes from *matter* to *body* to *mind* to *spirit*. If this is true, then we have a way to integrate the material worldview of the modern west with the more spiritual world views held historically in the east. Mind and matter are not opposites, but two aspects of one evolutionary continuum.

If we step away from the big picture and look at an individual human being, we can look at the evidence that people go through a process of growth and development. Stages of personal development have been identified by a number of researchers including Abraham Maslow, Robert Kegan, Jean Piaget, Susan Cook-Greuter and Jane Loevinger to name just a few. They may be looking at different aspects of development and have different names for their stages, but the one commonality is that they have all identified a process of growth much like the general one outlined above, where each new stage *transcends* but also *includes* the previous stages. The simplest set of personal development stages is from *body* (emotion centred awareness) to *mind* (mental/rational centred awareness) to *spirit* (more compassionate transpersonal awareness). Understanding this progress in human development helps us understand the importance of integrating the wisdom of the body with the intellect of the mind in order to gain a wider, transpersonal level of awareness that can support a more integrated, dynamic view of reality.

Altitude

Similarly, theorists such as Jean Gebser, Clare Graves and Don Beck have identified stages of development in *culture*. At this point I'm going to simplify and generalize this work for the permaculture context based on my own experience. For practical purposes we will discuss four cultural stages. I'll name them using the colour scheme from the Integral framework referred to as *stages* or *levels* of 'altitude'. Altitude is a general marker of development that may be used for correlative levels in culture (collective) and the self (individual). See Figure 2 for a diagram of correlates in each quadrant. Each cultural level or altitude is characterized by a core set of values and by an increasing capacity for inclusion. Values are simply what the people at this stage of development collectively hold to be most important; inclusion is the capacity to include others in one's sphere of care. Each level of altitude also leads to a definitive worldview that shapes how its members see the world. Most people can intuitively sense levels of cultural development if they are presented using some commonly recognizable traits, which is how I'll introduce them here. Altitude, as

mentioned above, also functions as short hand for levels of individual development. I will attempt to introduce cultural and personal levels of altitude concurrently below.

Amber

Amber cultural groups value belonging through order. They are often absolutist and patriarchal, with strong hierarchical social structures. Individuals expressing amber altitude will have strong community and family values and mythic religious beliefs. This value set is often expressed politically through groups promoting family values and traditional morals. Older children who have mastered and enforce household or community structures are expressing an amber orientation. Amber cultures transcend earlier cultures and can be seen as an evolutionary step that allowed for their aggregation in the development of complex civilizations in the agricultural period. The sphere of care is wider than anything that came before, but still limited to a nation, club, team or other identifiable group thought of as 'my people'. I'll use the term 'traditional' when referring to communities and individuals oriented around this level or stage. The members of this level of altitude amount to about 25 percent of the Western world. Amber worldview started to emerged about 10 000 years ago.

Orange

At the Orange level of altitude people value individual rights, achievement and performance. Economic material gain is often identified as the way to generate the greatest good. Rational, scientific understandings of the world are most highly regarded. Orange typically emerges for the individual around late high school or early adulthood. Orange cultures transcend Amber cultures in that their wider ethics of productive economy create a market that can include more people within their system of organization. Orange is seen as the worldview of the enlightenment and subsequent period of rapid industrialization in the West. I use the term 'modern' when referring to this level of altitude. The members of this level of altitude amount to approximately 40 percent of the Western world. Orange perspectives started to emerge en mass about 400 years ago.

Green

Green values sensitivity and diversity. It can include multiple perspectives on reality. People in Green are often sensitive to social injustice, animal rights and ecological destruction. Their sensitivity makes them good communicators and their values are often expressed in postmodern academic concepts such as the deconstruction of power, relativism and contextual approaches to knowledge and understanding. Green's sphere of care is wider than Orange in that it can care for all people regardless of whether they are customers or trading partners. It is fully world-centric in orientation and will manifest as lifestyle choices like vegetarianism as a response to the imperative to care for animals. Green sensitivities inform postmodern perspectives from environmentalism and deep ecology, fair trade and anti-globalization activism, to collaborative online communities and the design of advanced communications architectures like the world wide web. Green altitude fosters the worldview that I have referred to as 'postmodern'. The members of this level of altitude currently represent about 20-25 percent of the population of the Western world. Green, postmodern perspectives emerged as a general world view only some 40 years ago

Teal

While all the altitudes so far represent a developmental advance (and of course inclusion) on the level before them, at the Integral level of altitude there is a major change in the nature of development. The altitudes from original to postmodern are all exclusive worldviews. That is, if you ask, say, a *modern* executive of an export wood chipping company at Orange attitude if they think that a post modern Green initiative to save the forest is responsible, they will say no it is not. Alternatively Green activists will not condone wood chipping as responsible. A traditional farmer or original inhabitant will have their own different interpretation of the common good in this instance. In fact none of the first tier altitudes related here will accept the values of the others as fundamentally legitimate.

At the *integral*/Teal level of altitude the entire holarchy of nested development - from original to traditional (which transcends but includes original) to modern (which transcends but includes the previous two) to postmodern (which transcends but includes the previous three) - is seen as an integrated whole. From an integral

perspective, you can't remove modern values of productivity and exchange from society any more than you could remove your lungs or your kidneys from your body. At an integral altitude, all worldviews are accepted as valid. The way forward is not to pick one at the exclusion of the others, but to integrate and balance the different ways of seeing the world for the best overall outcome. The way to work with this practically is to encourage healthy and appropriate expressions of each world view where they are found. Like a Green postmodern approach, a Teal integral perspective accepts diversity, but it goes farther and recognizes patterns and order in diversity necessary for unitive health. By virtue of its pattern oriented, more comprehensive view, an integral perspective can generate an inclusive, compassionate capacity for all previous altitudes, marking it as a *second tier* altitude. Because of their more exclusive nature, the first three altitudes- Amber, Orange and Green- are referred to as *first tier* altitudes. Members of a second tier, integral altitude represent roughly 2-3 percent of the Western world, with some evidence of a more substantial demographic trend in this direction. An integral world view is only now emerging as a widespread set of perspectives in the Western world.

In summary we now have the three domains of *Self/I-space*, *Culture/we-space* and *Nature/eco-space* (based on the quadrants) as well as four levels: *Amber/traditional*, *Orange/modern*, *Green/postmodern* and *Teal/integral* (based on altitudes) to work with as we explore an integral permaculture. Technically the foundation Integral framework developed by Ken Wilber contains five elements: *quadrants* and *levels*, which we have covered here, and *states*, *lines* and *types*, which we do not have time for in this short chapter. The interested reader should see *A Theory of Everything* by Ken Wilber for a more comprehensive introduction.

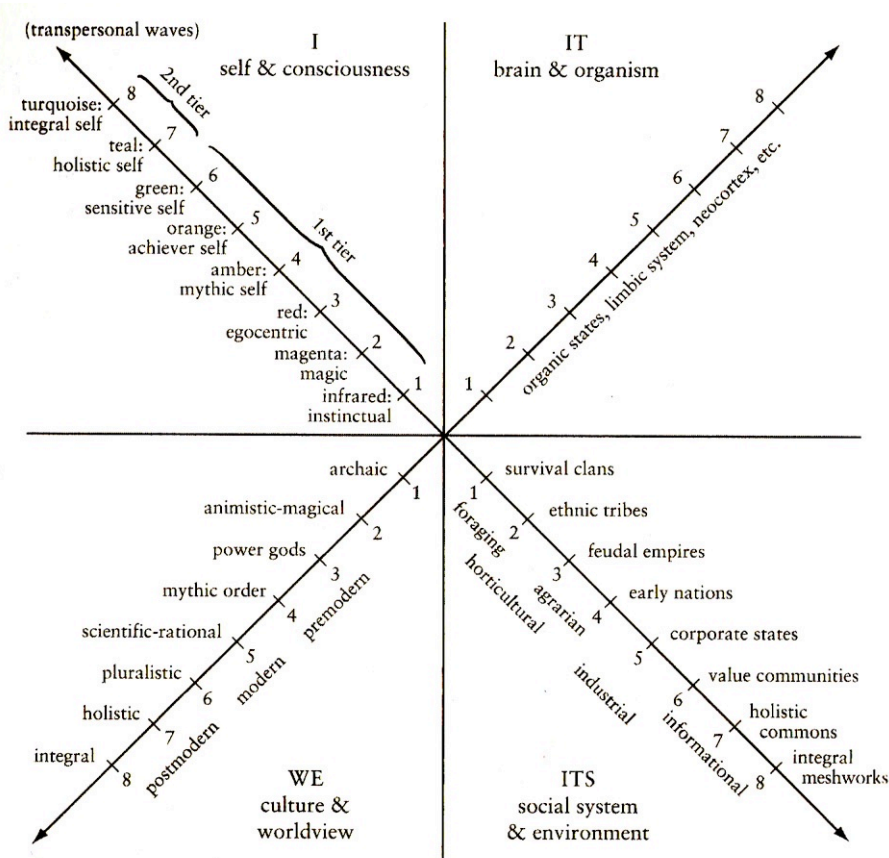


Figure 2, from Wilber *Quadrant diagram showing levels*

An Integral Permaculture

Now that we have a background in some of the basic elements of integral theory we can take a brief tour through some of the ways that it assisted our permaculture practice at Permaforest Trust. It is fair to say that as the project grew in scope and in numbers so did the challenges. For a while they seemed insurmountable and there was a great deal of confusion as to why our permaculture ideals and practices were leading to such dysfunctional outcomes. One by one though, we put in place strategies based on a more integral perspective that lead to real results and tangible improvements.

We-Space Strategies

One of our first realizations was that we really only considered it permaculture if it was earth care. Our attention was almost exclusively focused on creating outcomes

in eco-space. Care of people, we-space, was almost always seen as something secondary. I don't think we were unique in this. It is not at all common in my experience to find permaculture projects that explicitly put people first. Although people care is the stated second ethic of permaculture, and even though we were initially conscious of the importance of the community dimension to our project, initially anyway, it always came second. It was only after realizing that it needed to be at least equal to eco-space practices that we started to see improvements. After this realization we developed a detailed community handbook that spelled out our values and expectations. We sent it to people before they came and asked them to voluntarily commit to the system. We put in place management and support team systems to encourage adherence to the community system and we scaled back on eco-space activity to support more we-space activity.

I-Space Strategies

A natural follow on from re-prioritizing we-space, was the realization that individuals needed significant support as well. Initially most of us managing and participating in the project were firmly rooted in a sensitive, post modern/green worldview. This has common challenges like 'endless meetings' where consensual decision making included much discussion and dialogue about feelings and interpersonal dynamics. But it also had more serious dimensions. The realities of restrictions on personal freedom inherent in community living often caused ongoing psychological and emotional trauma, even among the most well-meaning and passionate of participants.

Personal freedom is a hidden form of wealth or resource use in postmodern culture. Only very wealthy industrially based societies like our own can support so many people with so much autonomy. When it is taken away or, in our case, voluntarily given up, even by people with strong ideals of low resource, community living, it can cause significant resentment, rebellion, anger and depression. Putting in place strategies to support the healthy transition to a more ecologically sustainable lifestyle was the most taxing of all the dynamics we had to deal with. We did manage to develop strategies for managing and supporting these personal transitions, but in the end, given our isolated rural setting and minimal resources, we could not sustain this

effort. Management was constantly in danger of burning out through using their own energy and personal resources to support the participants' I-space challenges. It is essentially why we ended our experiment of modelling a rural permaculture educational community. To this day, I see I-space challenges as one of the most significant aspect of transitioning to a sustainable future.

At this juncture it may look like an integral perspective was not enough, but I look at it somewhat differently. Firstly, while an integral approach has proved very effective, it is not a cure all. And, secondly, if we didn't develop an awareness of the importance of I-space, we might have burned out before we could successfully conclude that phase of the work of Permaforest Trust and move on to more viable undertakings. An integral perspective was critical in avoiding collapse by allowing us to see our limits in the I-space dimension. In a more general sense this may be a very important integral perspective on the dynamics of global sustainability transition. Trauma and healing modalities as well as personal growth and development practices may become some of our most powerful strategies in sustainability.

The Tyranny of Structurelessness- Using Healthy Amber

Another aspect of the project's participants being generally oriented in a Green/postmodern worldview was an overt regard for non-hierarchical social structures. This extended to a disregard and a general dislike and distrust of structured social arrangements in general. This is an understandable reaction to the oppressive dominator hierarchies at work in modern society. They are rightly seen as unhealthy and unsustainable in their pathological form, but removing all structure as a reaction can lead to equally poor outcomes that become a tyranny in themselves - a tyranny of structurelessness. I've already related the dysfunction caused by a lack of structure at Tagari Farm. Similarly, for us this structurelessness lead to a confusing morass of unfinished tasks, unmet commitments, interpersonal dysfunction and personal dissatisfaction. A postmodern view allowed us to deconstruct unhealthy power structures, which is fine, but it didn't help us focus on how to put the parts back together in a functional way. At times it felt like we were compulsive deconstructors adrift in a decaying marsh of our own undifferentiated

deconstructions. The solution provided by an integral perspective was to get in touch with healthy Amber values of clear structure and organization in social relationships.

Having a community system and a handbook to support it, mentioned above, was helpful, but what really made it work was explaining it and practicing it in an acceptable way. We carefully and intentionally related that it was essential for the health of the community that people meet their community commitments, and that it was essentially unethical in a fair and equitable community system to let others down. Ultimately, and this was the hardest part, we had to enforce this structure. We had a procedure of positive support and motivation for people who struggled, but there was a limit after which people were asked to leave if they could not meet their commitments. There was no negativity attached to this, only a recognition that the situation need to be resolved for the wider good. This may have been our most successful integral intervention: things became substantially better after we established and enforced this community structure - it was like night and day. The level of functionality and the general well being it facilitated was, in my view, the reason visitors often commented that they felt there was something special going on at Permaforest Trust.

Poverty Consciousness- Using Healthy Orange

Another important dynamic having a negative effect on the project was a general 'poverty consciousness'. What I mean by this is that there was a general disdain for anything to do with money and commerce- poverty was seen as a kind of sustainability virtue. Often people wore a kind of faux Western poverty as a badge of honour. This seems to be endemic in the environmental line of development in postmodern circles, which I refer to as 'Deep Green'. I use this term in much the same way it is used in Deep Ecology: to denote a more meaningful depth of engagement in the topic. Other lines of postmodern development like internet technology, environmental policy making and the emerging green public relations field, seem to have less aversion to money, and it can be seen in others like social activism, fair trade, green politics and aid and development circles. In my view, this is another reaction to over-consumptive industrial economic processes that are seen to be so environmentally destructive. Again, it is understandable, but there is actually

nothing healthy about writing off productive economic patterns and commerce. We didn't focus on the business of environmental education as much as we should have in the beginning and it caused a lot of stress. There was, I have to say, an entitlement mentality when it came to education. This extended to us even though we were an independently funded, self-reliant, pioneering educational facility with few resources relative to government or corporate education programs. We were trying to model self-reliance and did not have any direct government support.

The answer to our economic stress was to get in touch with healthy Orange values of productive exchange and economy. We put together a business plan, budgeted effectively, marketed our product, made our fees clear, collected them and developed good value in our educational offering. We actually had good business skills, but we needed an integral framework to put us in touch with the importance of integrating them fully into the project. We also extended this ethic of productivity to our permaculture work and it helped us to hit new highs in organic food production and sales. As with introducing Amber inspired social structures, putting in place Orange structures around commercial processes and productivity systems led to some very subtle but definite peer pressure to diminish these activities. They just looked too 'conventional' and therefore unsustainable to anyone viewing from a first-tier perspective. Over time we learned to stand firmly at an integral level, and as we did, more and more participants started to see the benefits and to investigate an integral perspective for themselves.

The Heart Circle - Using Healthy Green

At this stage we were well aware that although we had manifestations of some unhealthy Green patterns, we did not want to give away Green perspectives altogether. After one gains some perspective on Green values and patterns there can be a bit of a tendency to develop an allergy to them and to the Green level of altitude in general. This is typical of first tier development. When one develops to the next perspective it is inhabited exclusively, with little room for previous values or views. It is a bit like the pattern of reformed smokers who becomes extremely critical of their friends who continue to smoke.

We became conscious of nurturing our Green strengths, diminishing the pathologies and integrating with values and practices native to other altitudes. Practicing sustainability became a bit like practicing Traditional Chinese Medicine - we worked to balance and integrate all of the energies and dynamics of our system for enduring health.

One of the most important Green processes we developed was the Heart Circle. This is a process modified from Rainbow Gatherings. All participants sit in a circle and take turns speaking. One person talks at a time only and everyone listens until they are done. It is a sacred, intentional space where people can speak their truth and speak from the heart. Commentary can be extremely personal and deeply critical. It is a very powerful and intense interpersonal space, full of emotional depth, deep honesty, sensitivity, great joy and equally great sorrow, anger and sometimes immense ecstasy. By developing this space and intentionally containing this energy we could honour the depth and beauty of being Green in a healthy way that allowed us to integrate it into our lives without this powerful energy dominating all of our other process.

Conclusion

I would like to emphasize here that the integral framework is a map only, and a simple one at that. Reality, the territory it tries to describe, is infinitely complex, ultimately mysterious and if we are honest only partially knowable. A good map, though, can be very helpful in navigating a real terrain.

Using even the few insights from a basic integral perspective related here was enormously helpful in our work during the ten years Permaforest Trust experimented as a rural permaculture educational community. The Integral framework continues to inform my understanding and work within permaculture, Permaforest Trust and sustainability more generally. There was a time when the pathologies, dogmas and difficulties of 'making permaculture work' in a Green milieu almost caused me to give it away altogether. Now, I can see the strengths of permaculture more clearly and I am more effective at working through its weaknesses.

An integral perspective allows me to see my world in a similar way. I am comfortable with it again. Not through ignorance, but through understanding. It doesn't have to be rejected, I don't have to live outside of it to have an ethical existence, it doesn't have to fought, it is not going to fall in a screaming heap and I don't have to fix it. It is beautiful because it is what it is and it cannot be anything other. Its current dynamics are obviously unsustainable, but I now have a faith in the patterns of systemic adaptation, organization and change. There is a source of order and evolution at work in our world and there is great power in working *with* this process. This is not a naive or passive faith. It is, indeed, a clear awareness, a critical call to action, but it is not by fighting the various parts of our greater *Self* that we will persevere. Our greatest hope lies with the compassion to harmonize the great depth and span of reality using the principles and patterns of Natural organization.

An integral permaculture must use its strength for identifying natural patterns and principles in the 'environment' and apply them to the 'environments' of *self* and *culture* as well as *nature*. We must use our insights more comprehensively by recognizing and integrating the many worldviews held by the planet's many peoples. And, we must have the compassion to embrace all of our world, while having the wisdom to eliminate its pathologies wherever we find them. While an integral permaculture may not be about spirit, it does make room for genuine spiritual practice, allowing the integration of this very important and powerful aspect of human and cultural development. Becoming skilful in combining these elements is a great step forward in facilitating the enduring health of our civilization.

Few disciplines have permaculture's practical foundation in learning and using natural patterns and principles. Fewer still have integrated foundations in ethics, people care and earth care. Also, permaculture has a unique capacity for facilitating local community self reliance in food, energy and other critical commodities during sustained periods of resource decline. If our perspective about approaching bio-physical limits to growth and impending energy descent is correct, then a more fully integral permaculture- one that can combine the strengths of the various sectors of our communities, support individuals in personal transition *and* offer viable alternatives in agriculture and local economy- will become critically important. In a future of declining *outer* material growth there is an opportunity and a likelihood of an

increasing alternative trend in towards *inner*, personal and spiritual growth. An integral permaculture can become a vehicle where providing us with what we need becomes a way of realizing the potential for who we can more fully become.

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DEVELOPING A LOWER-RIGHT TYPOLOGY AS AN INTEGRAL SUSTAINABILITY LANGUAGE

Tim Winton

ABSTRACT This article introduces an experimental typology and its application to the horizontal development of Integral Sustainability. The typology, PatternDynamics™, is derived from observations and experiences of natural and social systems and the study of scientific, ecological, and economic systems disciplines. It is composed of a set of graphic symbols representing natural organizing principles, or recurrent dynamic patterns of relationships, important for sustaining ecological and economic health in the Lower-Right quadrant. Developing a sustainability pattern language creates three strategic opportunities: 1) it extends a now commonplace set of objective systemic insights (Lower Right) to facilitate a less common but essential set of mutual understandings in the Lower-Left quadrant; 2) a graphically-based pattern language provides the opportunity to communicate sustainability perspectives as neutral visual symbols containing different levels of meaning for different levels of altitude, giving an integral initiative a novel means of enfolding, accepting, and enacting intra-level meaning; and 3) it facilitates sustainability leadership by providing a strategy for communicating and coordinating sustainability from an integral perspective. Climate change is discussed using Integral Theory and PatternDynamics™ as an example of how any topic within the greater context of sustainability may be approached more comprehensively using tailored AQAL methodologies and tools.

KEY WORDS: AQAL model; language; patterns; sustainability; types

In extreme times the entire universe becomes our foe; at such critical times, unity of mind and technique is essential—do not let your heart waver!

— *Morihei Ueshiba*

The central claim made by the evolutionary systems sciences is that, whatever the actual nature of these three great domains, they are all united, not necessarily by similar content, but because they all express the same general laws or *dynamic patterns*. [emphasis added]

— *Ken Wilber*

Perhaps the defining feature of our times is an underlying “anxiety of collapse” created by a clear-eyed view of unsustainable behavior, on the one hand, and on the other, the helplessness we experience as initiatives for change are swept aside by the forces of seemingly intractable global complexity (Diamond, 2005; Homer-Dixon, 2006; Tainter, 1988). This anxiety is not generated from a lack of understanding—a

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powerful minority understands the ecological realities and the challenges ahead all too well (Brown, 2006; Meadows et al., 2004)—and it is not from a lack of solutions. In fact, it is entirely possible that we understand our ecological situation well enough, as we have successfully tested enough environmental, technological, social, and economic initiatives to succeed (Holmgren, 2002; Odum & Odum, 2001). The problem is that these solutions are, for the most part, small in scale, uncoordinated, and unintegrated. After 40 years of environmentalism, policy traction is currently too small in light of the size of the problem (Shellenberger & Nordhaus, 2004). We shout for global action and relatively few people listen—even fewer act. The lack of change creates frustration, making it appear that our only option is to fight for our perspective (mostly by fighting other perspectives).

Our anxiety, then, is born of a fundamental failure to communicate, and it is reaching a fever pitch. In desperation we may resort to extreme positions, manipulation, or force to get large-scale action on sustainability, but this will ultimately be an unsustainable approach in itself, accelerating breakdown rather than coordinating action. Therefore, facilitating effective communication and widespread mutual understanding is now a critical strategy in sustainability.

What is missing is not more “exterior” technologies or more evidence about the nature of the exterior world, but a critical mass of “interior” agreement about how to proceed based on what we already know. One of the keystones to sustainability at this stage is the development of its cultural meaning. This is the essential prerequisite to widespread action, as sustainability is now as much a cultural phenomenon as an ecological one—it requires mass collaboration on a global scale. This in turn will require an evolution in communication, understanding, leadership, culture, and action. Will a unity of mind and technique allow us to facilitate enduring health and evolution? Or will we flounder, applying partial and fragmented approaches to complex challenges?

The Integral Approach

In this article I will review the Integral framework briefly, examine sustainability generally, and climate change specifically. Then I move on to explore some important features of integral typologies and to review the origin of contemporary pattern languages. Lastly, PatternDynamics™ is introduced and used to discuss climate change in order to build *cultural meaning* from an integral perspective.

Quadrants

The AQAL model, as developed by Ken Wilber and colleagues, provides us with a realistic foundation for integrated and coordinated planetary action in sustainability. The five elements of the framework (quadrants, levels, lines, states, and types) represent a comprehensive and therefore, at this stage, eminently useful means of developing strategies in sustainability. Quadrants are the foundation to an Integral approach. They represent “primordial perspectives” through which we experience the world. Figure 1 illustrates how the perspectives are generated using a simple matrix. The matrix integrates the primacy of *interior* (subjective) and *exterior* (objective) realities as well as *individual* and *collective* realities. Where the individual and the interior intersect is the “intentional,” subjective experience of the self, found in the Upper-Left (UL) quadrant. The individual and the exterior give us a “behavioral” perspective, with the material characteristics and activities of individual organisms in the Upper-Right (UR) quadrant. The interior of the collective represents

the cultural domain: shared perspectives of meaning, values, and beliefs are attributed to the Lower-Left (LL) quadrant. Exterior and collective domains intersect to form the social or systems perspective of ecologies and economies within the Lower-Right (LR) quadrant (Fig. 1).

In Integral Theory, the universe is often described as being fundamentally composed of *holons* (Koestler, 1969). A holon is defined as something that is simultaneously a whole in its own right and a part of larger systems. In addition to its simultaneous partness and wholeness, a holon also has both subjective and objective aspects. From atoms, to molecules, to cells, to organs, to organisms—everything in the universe (or more properly in integral terminology, the *Kosmos*) can be viewed through the four quadrants. In the domain of Integral Sustainability, the Integral framework includes standard ecological systems perspectives (LR), while not excluding or marginalizing less common behavioral perspectives (UR), cultural/intersubjective perspectives (LL), or experiential/subjective perspectives (UL).

The four-quadrant approach actively explores many critical perspectives not currently considered with the same weighting as LR ecological and economic concerns (Wilber, 1995). The Integral framework is, of course, ultimately only partial itself in relation to further developments in human understanding, but it appears to be a leading (and quite likely *the* leading) theoretical and practical approach inclusive enough to provide integrated solutions capable of avoiding the failures of current, more partial, and less coordinated attempts to foster sustainability (Esbjörn-Hargens & Zimmerman, 2009).

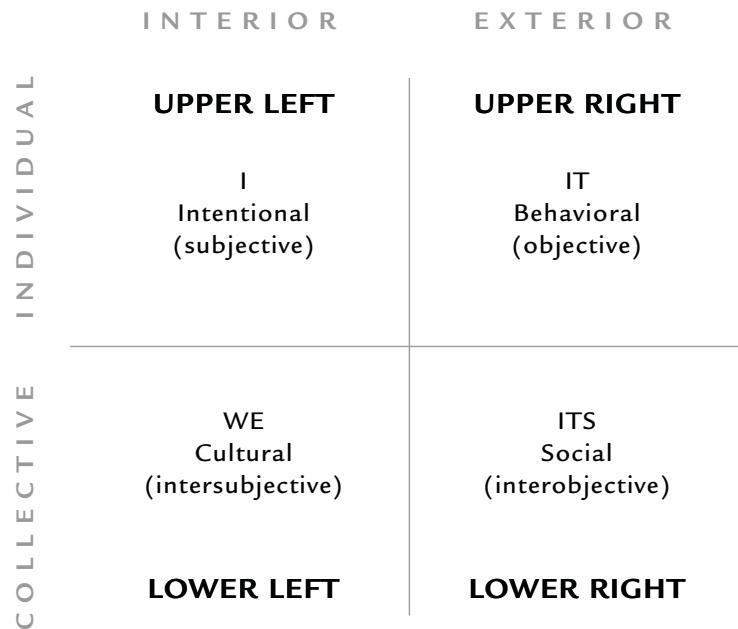


Figure 1. Diagram of the four quadrants. From Wilber (2000); used with permission.

Levels

Levels provide insight into the developmental, evolutionary aspects of sustainability. Developmental unfolding takes place in identifiable levels (also referred to as *stages* or *waves*) in each quadrant. For instance, we

could look at the big picture of evolutionary systems on planet earth (LR) from physical matter (physiosphere) to living ecologies (biosphere) to financial economies (noosphere). The general progression is from less complexity to more complexity. Or, we could look at a representation of levels at a smaller, human time scale called *altitude*. Altitude is a general marker indicating similar levels of development that can span both the interior consciousness of individuals (UL) and the interior of groups of people or cultures (LL) as well as correlative development in the other quadrants (Wilber, 2006). Altitude is expressed using a color scheme related to the spectrum displayed in a rainbow. Eight or more levels of consciousness are commonly used (Fig. 2), but for our purposes we need to discuss only five of the most relevant to sustainability. Three of these levels are *first tier*, indicating that individuals or groups associated with these levels identify exclusively with their level of altitude. From any first-tier perspective, people at other altitudes with different values are seen as misguided or simply wrong. A defining characteristic of second-tier altitudes is that there is a willingness to include, balance, and integrate truths from other levels. The five levels discussed in this article are:

First Tier

- *Amber altitude* refers to the conformist self, sometimes called the *mythic self*. People at this level are rule-oriented and driven by conformist values; they rely on sacred scripture to provide unifying truths, purpose, and codes of conduct. Culturally, they are ethnocentric and traditional in nature, espousing family values based on religious edicts. They have a strong sense of community through moral purpose, and they revere structured social hierarchies.
- *Orange altitude* indicates the conscientious or achievement-oriented self. Individuals at this altitude are objective thinkers, valuing autonomy, material wealth, and achievement. Culturally, they are worldcentric modernists, valuing liberty, universal rights, and humanist thinking based on ideals of the Enlightenment.
- *Green altitude* represents the sensitive self. People at this level express individuality and value sharing, communication, and the recognition of culturally-constructed contexts. Culturally, they are postmodern, worldcentric, and egalitarian, valuing multiculturalism, web-of-life systems views, environmentalism, and social justice.

Second Tier

- *Teal altitude* represents the holistic self. At this level, people are autonomous and through that capacity are conversant with a multidimensional reality of shifting contexts, chaos, and spontaneous systemic adaptations. As the first stage of second-tier consciousness, teal altitude accepts the value of all previous levels of human development. Culturally, they are holistic, valuing exceptional leadership, body-mind integration, and life service in the resolution of complex systemic social and cultural dynamics.
- *Turquoise* marks the integral self. Individuals at this level demonstrate compassion, open-heartedness, and wisdom in their commitment to action. Joy and suffering are held equally as radiant expressions of a Kosmos infused with divinity, energy, and beauty. Culturally, they are Kosmoscentric, valuing the care of all beings. They have a deep acceptance of the world in all its manifestations and they revere the generation of health and evolution at all levels, in all domains.

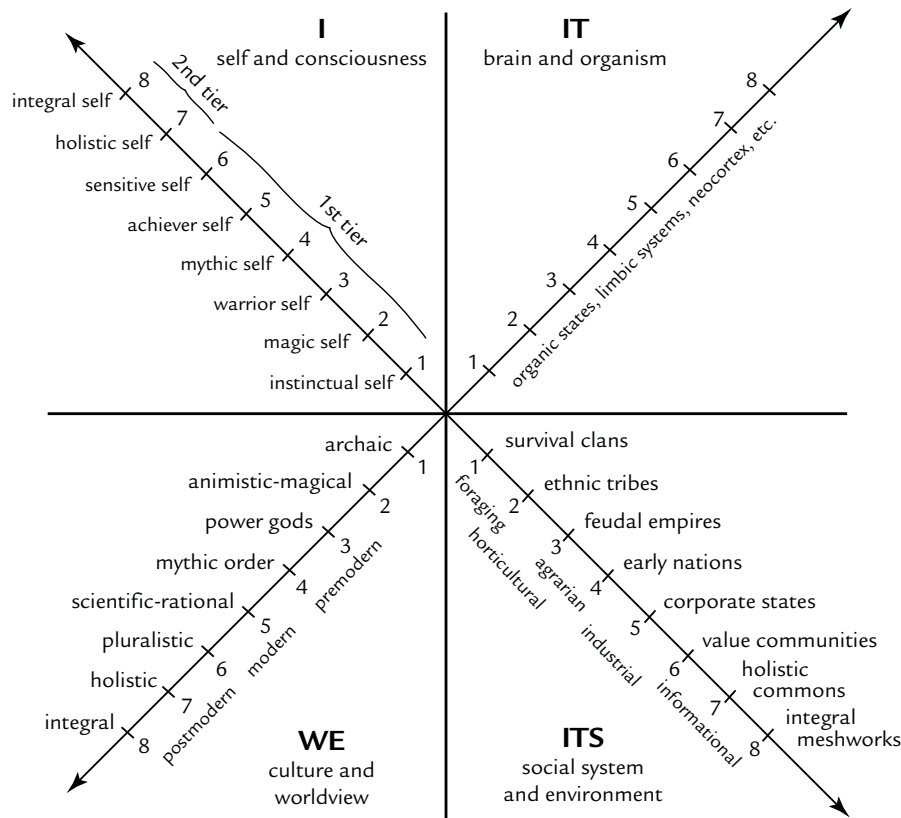


Figure 2. Diagram showing altitude “correlates” in each quadrant. From Wilber (2000); used with permission.

Lines, States, and Types

Lines represent different aspects of development in any quadrant. For example, if we are talking about the interior of a person (UL), then a line of development could be their musical line, their cognitive line, or their emotional line (sometimes referred to as intelligences). States are temporary movements from a more stable stage of development in any line to a temporary peak or regression. A person learning music may have a state experience of virtuosity during intensive practice, but it will not last, and they will settle back to their more stable stage of development after the moment passes.

With the first four elements of the AQAL framework we can experience phenomena within the widest possible set of perspectives, and we can investigate them with a similarly comprehensive set of perspectives (Wilber, 2000). PatternDynamics™, the subject of the remainder of this article, relates to types, the fifth element of the AQAL model.

Sustainability

Before delving into the nature of pattern languages, I will explore some important dynamics at work in sustainability and climate change. How accurate is our understanding of the imperatives and priorities in sustainability? Why is scientific understanding not matched by global action? How have we failed to communicate? The key to this “action conundrum” lies in an integral analysis.

Sustainability has developed as a topic of the Right-Hand quadrants: essentially it has been an ecological understanding about the “functional fit” between the systems of the human economy (LR) and the systems of the biosphere (also LR). To a lesser degree sustainability has also included the conservation and protection of plants and animals as individual beings (UR). If human socioeconomic systems undermine the health of the biosphere to the point where it can no longer sustain us, we will falter. In other words, having transcended the biosphere through the development of the noosphere, we also need to *include* the biosphere. More specifically, we can design our societies and economies using the same patterns of organization and activity that arrange the enduring ecological workings of the biosphere, and we need to do it on a global basis (Mollison, 1988). This is a great and important truth, and it is critical for our survival and prosperity, but it can only be seen in this way from perspectives capable of a systemic view (i.e., green altitude or higher). To successfully implement sustainability strategies on a global basis, two things need to happen: first, the people who understand ecological realities—and the need to reshape socioeconomic systems to fit with them—need to generate agreement on how this should happen. Secondly, we need to communicate this effectively to people who do not see sustainability as a priority.

The action conundrum can only be resolved if we learn to “see” the importance of communication that will generate global cultural meaning (LL) to the same extent that we have learned to “see” systems as the key to enduring health in the biosphere (LR). From an integral standpoint, focusing on the LR quadrant in sustainability leaves out most of one-half of reality and a substantial part of the other. The Left-Hand quadrants are very much underdeveloped in sustainability (Esbjörn-Hargens & Zimmerman, 2009), and the UR is often ignored as the province of an outdated positivistic scientific materialism.

This “quadrant absolutism” represents a serious glitch in an AQAL matrix. It holds up essential progress in sustainability and it increases underlying anxiety. To gain the necessary global political policy traction and worldwide community acceptance, we need to address perspectives at all quadrants and all levels as well as find strategic leverage points using lines, states, and types. Given the slow progress using current more limited perspectives, it is difficult to see how anything short of an Integral approach will be comprehensive enough to resolve the complex global challenges in sustainability.

PatternDynamics™ is designed to leverage an Integral approach by creating a system of simple symbols based on enduring patterns displayed in the biosphere (see Appendix I). We can have conversations and build meaning (LL) about sustainability in a more comprehensive and inclusive fashion using these patterns. Also, we can demonstrate clearly the ecological foundations of our understandings, and we can scan other perspectives in sustainability for the same. The intention is to create a rich field of dialogue, understanding, agreement, belief, and ultimately values that facilitate a culture of Integral sustainability. Before moving on to the patterns themselves, I will look more closely at climate change as a perspective in sustainability.

Climate Change

The weakness in communicating the meaning of sustainability, and the historical lack of acceptance by the global community to make it a priority, gives us some insight into the rise of climate change as *the* major environmental issue of our time. Its emergence is based on the view that the Earth’s climate is currently becoming hotter and changing for the worse because of carbon dioxide emissions by human industry (i.e., the

anthropogenic global warming [AGW] hypothesis) (IPCC, 2007). The AGW view, however, only gained substantial traction when it was widely promoted that AGW could cause catastrophic and irreversible warming, making human life vastly more difficult or impossible (Hansen et al., 2007). It is not my purpose to debate the veracity of the evidence supporting this more extreme view *per se*, only to evaluate it in proportion to the reaction it has garnered. Evidence to support the extreme AGW view is not as strong as it is often portrayed, and major supporting arguments have more recently been critiqued and considerably weakened (Plimer, 2009).

This is not to say there will not be substantial evidence to support the extreme AGW view in the future, or that some level of AGW is not in fact occurring. However, in light of our integral analysis, we need to investigate the nature of this popular but partial perspective and to understand why it has become the leading environmental priority given the long list of worthy alternatives (see Zimmerman, 2009, pp. 13-14). For example, perceived limitations on the continued growth in supply *from* the environment (e.g., hydrocarbon energy supplies, water, essential minerals like phosphorus) and their combined effects on agriculture, global food supply, and industry are thought by many to have much stronger supporting evidence and much better claims to top priority in sustainability (Heinberg, 2004). To understand sustainability more fully, we may need to discuss the “inputs” to the economy as well as the “outputs” like carbon dioxide gas. The input/output pattern is indeed one of the fundamental patterns exhibited by all living systems and is included in the PatternDynamics™ typology (see Appendix I).

Climate of Fear

It is proposed here that climate change, at least in significant part, has gained such high priority because it is an environmental issue that, despite failures in the past, *is* proving to generate widespread meaning globally. It is also proposed that it is doing so primarily through the generation of fear. For a movement not yet well developed in generating widespread meaning and action, anything that does will be seized upon regardless of how it generates that meaning. Whatever the quality of the evidence supporting the extreme AGW argument, it is clear that the *effect* of this extreme view is largely based on tapping into the underlying anxiety about sustainability among those who feel it (e.g., large sections of the media, the scientific community, and government and policy makers at green altitude). There is a palpable feeling of urgency and fear associated with climate change that has sent it to the top of the list at this altitude. This is not necessarily a bad thing in-and-of-itself if it is warranted, but as we shall see, there is a fine balance between health and pathology in all types of dynamics.

The “climate of fear” approach has been critiqued as an unhealthy extreme in environmentalism (e.g., Crichton, 2004). A lack of supporting evidence has also been seized upon as a weakness in the case for acting on climate change more generally by those who oppose it as a policy priority (Marshall Institute, 2007). The promotion of the fear of “climate collapse” has seemed to provide a much needed powerful, albeit blunt, means of getting large sections of the global community not at green altitude to also acknowledge the importance of sustainability. If an intersubjective circle of meaning (LL) is an important key to collective action, then tapping into the fear and anxiety among individuals (UL) is a tried and true method of generating it. Generating fear, then, has the capacity to create powerful, intralevel meaning (LL) that changes individuals’ behavior (UR) and by extension social systems (LR).

The problem with this approach is that although it may appear to work well in the beginning, it is not sustainable, and it has a habit of losing effect, requiring the generation of more and more fear and anxiety. There are limits to holding this extreme position without correlating extremely supportive evidence. If the underlying phenomenon is not realized, or its supporting evidence is weakened further, this strategy can cease to work altogether. If this happens, credibility is lost, undermining other important initiatives in climate change and sustainability. Whatever the truth of AGW, clearly it is necessary to develop more skillful methods of identifying, evaluating, prioritizing, and communicating climate change issues.

Types

The above analysis of meaning-making in sustainability provides us with a relevant context for our exploration of types, typologies, and pattern languages. Understanding these important elements will help us work more effectively, particularly via the Left-Hand quadrants. In Integral Theory, types are described as “items that can be present at virtually any stage or state” (Wilber, 2009, pp. XXX) or as “horizontal styles available to any developmental level within the quadrants” (Rentschler, 2006, p. 35). Types are also described as “stable and resilient patterns,” and that “by becoming more aware of them and their role in whatever you are attempting to do, you are more able to infuse sustainability into your efforts by linking to existing enduring patterns” (Sean Esbjörn-Hargens, personal communication, December 12, 2009).

Types as items, styles, or patterns may be unique within a location such as Carl Jung’s eight psychological types (UL); William Sheldon’s body types (ectomorph, endomorph, mesomorph) (UR); researcher Jeffrey Sonnenfeld’s types of corporate culture (academy culture, baseball team culture, club culture, fortress culture) (LL); or generically recognized types like economic systems (traditional, market, command, and mixed) (LR). In each of these examples a type of form or process is identifiable because it recurs—a type of corporate culture is only identifiable (and useful as a concept) because it appears more than once. For my purposes, this stable repetition of form and activity is the first property of types to be of interest. The second is that repeated forms have a consistency that allows us to know something about a thing’s experience, culture, or nature via its type. Third, types are generalized or generic expressions, describing a class of form or process, not the details within it. The fourth characteristic of types, as noted in the quotations above, is that they may appear at any level of altitude. For example, an ectomorph body type is a recurrent, consistent, general pattern of human form that occurs at all levels of UR quadrant bodily development, telling us that someone with this body type will be thin, rather than muscular or heavy.

Horizontal Development

The features of types outlined so far help us understand recurring patterns and thus facilitate horizontal development. They help us “flesh out” things we observe or experience, and they can lead us on a journey of more comprehensive enactment: we can come to *know* more about a thing by seeing its general type. In this way we can understand more about our subject than just its address within the AQAL framework. For example, Carl Jung (1921) identified four main functions of consciousness: sensation and intuition (perceiving functions) and thinking and feeling (judging functions). He also identified that they can have introverted and extroverted forms. By combining the functions with both their introverted and extroverted forms, eight possible configurations, which he termed *psychological types*, are created. Jung proposed that these are stable and recurrent types or patterns of personalities. This approach is useful because it helps psychologists understand

the general character of their patient (but not the details of their personality or behavior) and to understand, for instance, the kinds of general responses their patient is likely to have in a given situation. This is true regardless of the patients level of development (i.e., they will express this general type of personality no matter what level they are). As well as location (e.g., UL quadrant, orange altitude) a psychologist can also assign a type (say, introverted thinking), giving a more fleshed out, more comprehensive, horizontal understanding of a patient.

Correlates and Types

It is proposed here that types not only help us understand more about phenomena at various levels of a particular quadrant, but that they also give us insight into their correlates in other quadrants. The feminine/masculine typology is an example of this feature of types: it can be observed as a matter of biological gender (female/male) (UR), seen as kinds of societies (matriarchal/patriarchal) (LR), revealed as different values within a culture (communal/individualistic) (LL), and felt as different textures of experience (feminine/ masculine) (UL). There are some characteristics shared by these examples in relation to their general pattern such that, despite their occurrence in different quadrants, we can assign them a common essential quality. This quadratic nature of types is the fifth property we need to understand to design an Integral Sustainability pattern language.

Health and Pathology in Types

Yet another feature of types is that they can be healthy or unhealthy. Ken Wilber (2000), speaking about masculine and feminine types, outlines the importance of this feature:

Using IOS [the Integral Operating System], you will find ways to identify both the healthy and unhealthy masculine and feminine dimensions operating in yourself and in others. But the important point about this section is simple: various typologies have their usefulness in helping us to understand and communicate with others. And with any typology, there are healthy and unhealthy versions of a type. Pointing to an unhealthy type is not a way to judge people but a way to understand and communicate with them more clearly and effectively. (p. 89)

Here Wilber points out two things: types in-and-of-themselves are not necessarily good or bad, healthy or pathological, but their *expression* can be. Having a proclivity towards a masculine, agentic, behavioral type may be a simple reality for an individual. If that individual expresses their masculinity by operating in a driven, self-absorbed, overly agentic way that undermines their own health or the health of their group or the world around them, then we could say their masculinity is “sick” or creating a pathology within the system (self-system or ecosystem). In another instance, or expressed in a way that *does* serve themselves or the group, we could say the same pattern or type of behavior is healthy. For example, perhaps a hard working, focused, independent person is essential for completing a difficult, time-sensitive task.

It is not the general quality of masculinity as a type that is important—the importance lies in its expression. This “health and pathology” approach allows us to communicate more effectively about our world. We no longer need to exclude essential aspects of reality. In the above example we can resist the reactionary impulse

to generally reject masculinity because of specific examples of its pathological expression. Rather than arguing about which aspects of reality should stay and which should go, we can realize that some things show up as types, and rather than throw them out all together, we should keep them and work out how to adjust their type for health.

Review of Types

In summary, we have explored six properties of types that make them useful: recurrence, consistency, generality, intralevel capacity, quadratic capacity, and healthy/pathological expression. Types allow us to know recurrent, consistent, general qualities about phenomena and how to balance them for health. Before we go any further, it should be stated that there has not been a great deal of work done on types in Integral Research (Esbjörn-Hargens, 2009). Therefore, any work here beyond what we currently know about types is speculative and hypothetical. At this stage, the use of types in the development of an Integral Sustainability typology like PatternDynamics™ is experimental and forms a process of action research as integral praxis.

As to the actual nature of the dynamic patterns observable in nature, we will largely have to leave this for another time. Although they are not individual physical elements in-and-of-themselves (the elements can transit through the system, but the dynamic patterns—like a candle flame or a whirlwind—remain the same), relationships between elements should not be seen as metaphysical phenomena (as in Platonic ideals). They are enacted through the perspective of the exterior collective quadrant (LR). Although they may seem ethereal by virtue of their organizational nature, these elements should be objective and material. In this regard, Rupert Sheldrake has made progress in describing organizational patterns affecting the growth and development of form with his hypothesis of formative causation and the idea of morphogenetic fields (Sheldrake, 1981).

Pattern Languages

The application of types to communication and meaning-making leads us to the concept of pattern languages. Firstly, a language is a system of communication. It is composed of signs and symbols (verbal, physical, or drawn) that allow people to understand one another. This is a mysterious and powerful process. How is it that the inside of me finds a space to resonate with the inside of you? How do we know that when we communicate something that it has the same “meaning” for both of us?

Integral Semiotics

According to Integral Semiotics, any symbol refers to a referent, a phenomena within a worldspace, or more colloquially, a thing in the real world (where the real world includes not just physical things, but also interior things like thoughts or feelings or values). A symbol itself has correlates in each quadrant: “By way of quadrivia, Integral Semiotics associates the signifier with the Upper-Right quadrant, the signified with the Upper-Left quadrant, semantics with the Lower-Left quadrant, and syntax with the Lower-Right quadrant” (Rentschler, 2006, pp. 25-26). Again, more colloquially, the *signifier* is the physical symbol—the actual ink on the page or the vibrations in the air—and the *signified* is what arises in my consciousness when I receive it; its semantics relate to the meaning it has to collectives and its *syntax* is the rules of the system of communication or how all parts of language form a whole “language system.” An integral language should honor all of these aspects.

Christopher Alexander

The idea of a “pattern language” was first introduced, at least in the contemporary setting, by architect Christopher Alexander. He created an architectural pattern language based on the idea that people should design for themselves their own houses, streets, and communities. This idea may be radical (it implies a radical transformation of the architectural profession), but it comes simply from the observation that most of the wonderful places of the world were not made by architects but by people:

At the core of the books, too, is the point that in designing their environments people always rely on certain “languages,” which, like the languages we speak, allow them to articulate and communicate an infinite variety of designs within a formal system which gives them coherence. (Alexander, 1977, pp. XXX-XXX)

Alexander rightly understood that for people to design for themselves, they need a means of communicating about architecture that allows them to form mutual understandings—understandings about the nature of good design and agreements on how to go about creating it. In doing this, architecture is brought forth from a command and control function by professionals toward a directed collaboration capable of working effectively in far more complex circumstances. The strength of this approach lies in its capacity to coordinate more perspectives, an important capacity to which I will return.

For the basis of his new language, Alexander chose patterns where, “Each pattern describes a problem that occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice” (Alexander, 1977, pp. XXX-XXX). The basis of this idea, that recurrent “design solutions” or what could be thought of as types of “architectural habits” can be drawn as graphic diagrams, or what he termed “patterns,” and that these patterns can form a language has been explored in a range of disciplines since Alexander’s original formulation, most notably in computer programming and education.

Neighborhood Boundary Pattern

I have included two illustrations of a neighborhood boundary pattern from Alexander’s book, *A Pattern Language* (1977). The first is a picture of a group of cells and their cell walls (Fig. 3). The second is a pattern illustrating two kinds of street layouts, one that creates an effective neighborhood boundary and one that does not (Fig. 4). Alexander’s description of this pattern outlines how an appropriate boundary is needed to protect and nurture a healthy neighborhood in the same way a cell wall is needed to protect the interior elements of a healthy biological cell. It then goes on to describe how a weak boundary will undermine the identity that defines it as a neighborhood. A good boundary will be balanced: strong, but not so strong that it shuts off a neighborhood from its surrounding neighborhoods. There are a few things here worth investigating. First, a neighborhood boundary is identified and drawn as a pattern diagram, making it available for communication; second, it is described; third, it is presented as representing a generic “design solution” that comes up again and again in architecture; and fourth, it is communicated that a balanced use of the pattern in design, in a given context, will give the best outcome.

From an integral perspective, the combination of the above four features takes a *type* of architectural “design

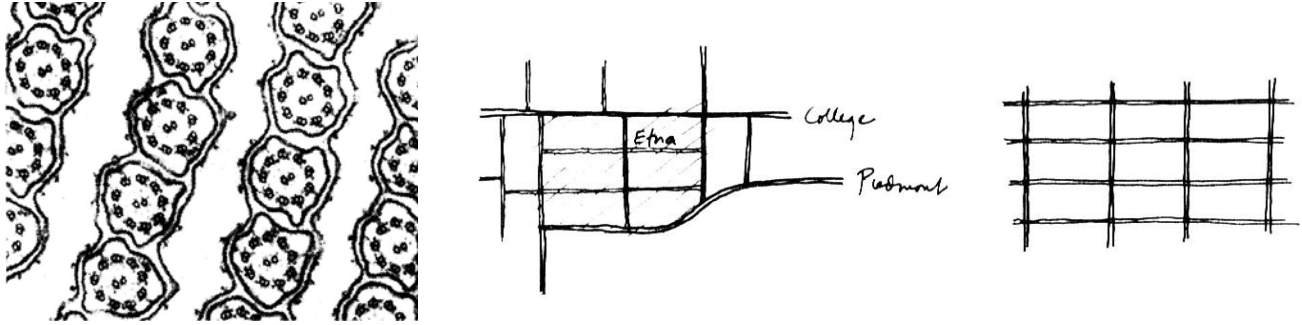


Figure 3 and Figure 4. Drawing of biological cell walls (Left). Drawing of a street layout in two different neighborhoods (Right). Adapted from Alexander (1964).

solution” (LR) and enacts a *principle* (its correlate) in the domain of culture (LL): it is now understood that, “Appropriate boundaries are necessary for beautiful and functional neighborhoods”—a balanced neighborhood boundary is now a principle of good design. This provides a simple but powerful foundation for discussing the creation of good neighborhoods. It allows for discussions that create firm intersubjective meaning about an important aspect of architecture previously so general and abstract that even professionals may only recognize it intuitively and communicate about it haphazardly. In Alexander’s book, some 253 patterns are comprehensively outlined. They are widely used to communicate the tried and true design solutions that make up good architecture, and a method for exploring their various combinations is now used in collaborative architectural design processes all over the world. For theoretical discussions supporting Alexander’s work in architecture, interested readers should consult his book, *A Timeless Way of Building* (1979).

In an earlier book, *Notes on the Synthesis of Form* (1964), Alexander states, “I found that the diagrams themselves had immense power, and that, in fact, most of the power of what I had written lay in the power of these diagrams” (pp. XXX-XXX). In this same book he displays patterns supporting design work for a village in India that give us insight into a method where individual patterns may be related in a hierarchical manner and combined to form a *language system* (Fig. 5).

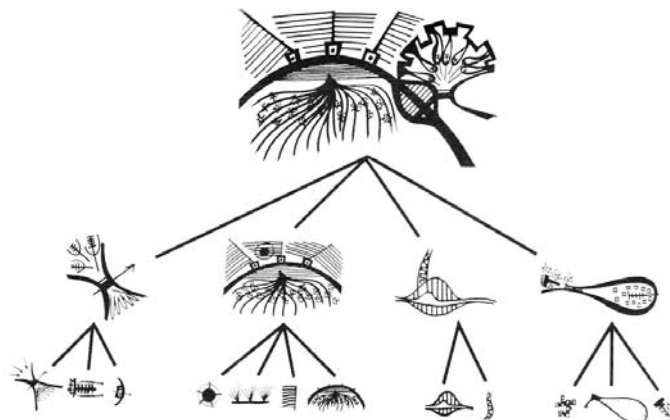


Figure 5. Individual architectural patterns combined into a composite diagram.

PatternDynamics™

PatternDynamics™ (PD) is a typology designed to help everyone understand and communicate about the natural patterns of organization that lead to sustainability. The patterns are recurrent, consistent, general, types of dynamic organization observable through a LR perspective. They can be thought of as nature's *deep design principles* or as fundamental *Kosmic habits* that get used again and again in the creation and maintenance of natural systems. In PD, each pattern in nature is represented by a graphic symbol (also referred to as a pattern—context should allow the reader to distinguish which definition is being used) and a one-word description (Appendix I). Both the symbol and the word give an indication of the nature of each pattern.

PatternDynamics™ assists in the horizontal development of sustainability through what is referred to as quadivaria (the exploration of a topic through all four quadrants): “ecologically sustainable” patterns (LR) are transposed into “ecologically sustainable” principles (LL). In turn, discussion of these principles leads to sustainable sensibilities (UL) that drive sustainable behaviors (UR). Also—and I think this may prove to be very important—the patterns themselves must be considered from the perspective of ongoing evolution. How do the patterns develop over time? How are they enacted by different levels of altitude? Which patterns or sets of patterns resonate most fully with different levels of altitude? Which ones do not? I think the evolutionary aspect of the patterns holds a key to widespread communication, and I am currently investigating this area to improve the way PD can be used in sustainability work.

Once the patterns can be generally recognized across various specific instances, we can use them to touch base with more aspects of sustainability issues, to communicate on a new level about those same issues, and in fact to think differently and act more effectively on those issues. As with learning any language, deepening levels of acquaintance over time give us a greater capacity to use it. Our knowledge of these patterns is introductory, but like any good introduction, I hope to give you a feel for the language and its potentials.

Structure of PatternDynamics™

The PD patterns are arranged into a hierarchical structure with three levels. The first level is composed of one pattern, Source, representing the oldest and deepest Kosmic organizing principle. Its symbol represents an integral holon: a part/whole with interiors/exteriorities integrating and dynamically evolving. Put simply, the first and deepest organizing principle to evolve in the Kosmos is that the Kosmos self organizes and evolves. To go further, we do not have to agree on how this process takes place, we only really have to agree that it happens.

All other PD patterns describe different perspectives on Source. Rhythm, Polarity, Structure, Exchange, Creativity, and Dynamics are first-order aspects of Source (i.e., they represent the most fundamental sub-patterns of Source). Like Source, the first-order patterns also represent deep structures that emerged during the early development of the Kosmos. They are all general LR patterns of organization observable in the physiosphere and maintained as fundamental organizing dynamics into the biosphere and the noosphere. For the purposes of an Integral approach to sustainability, my focus will be on patterns that assist with the integration of the noosphere with the biosphere; however, there may be wider theoretical possibilities for the application of very general patterns like these in illuminating fundamental organizing principles that coordinate activities across the depth and span of the AQAL matrix (e.g., in the context of an Integral approach to climate change).

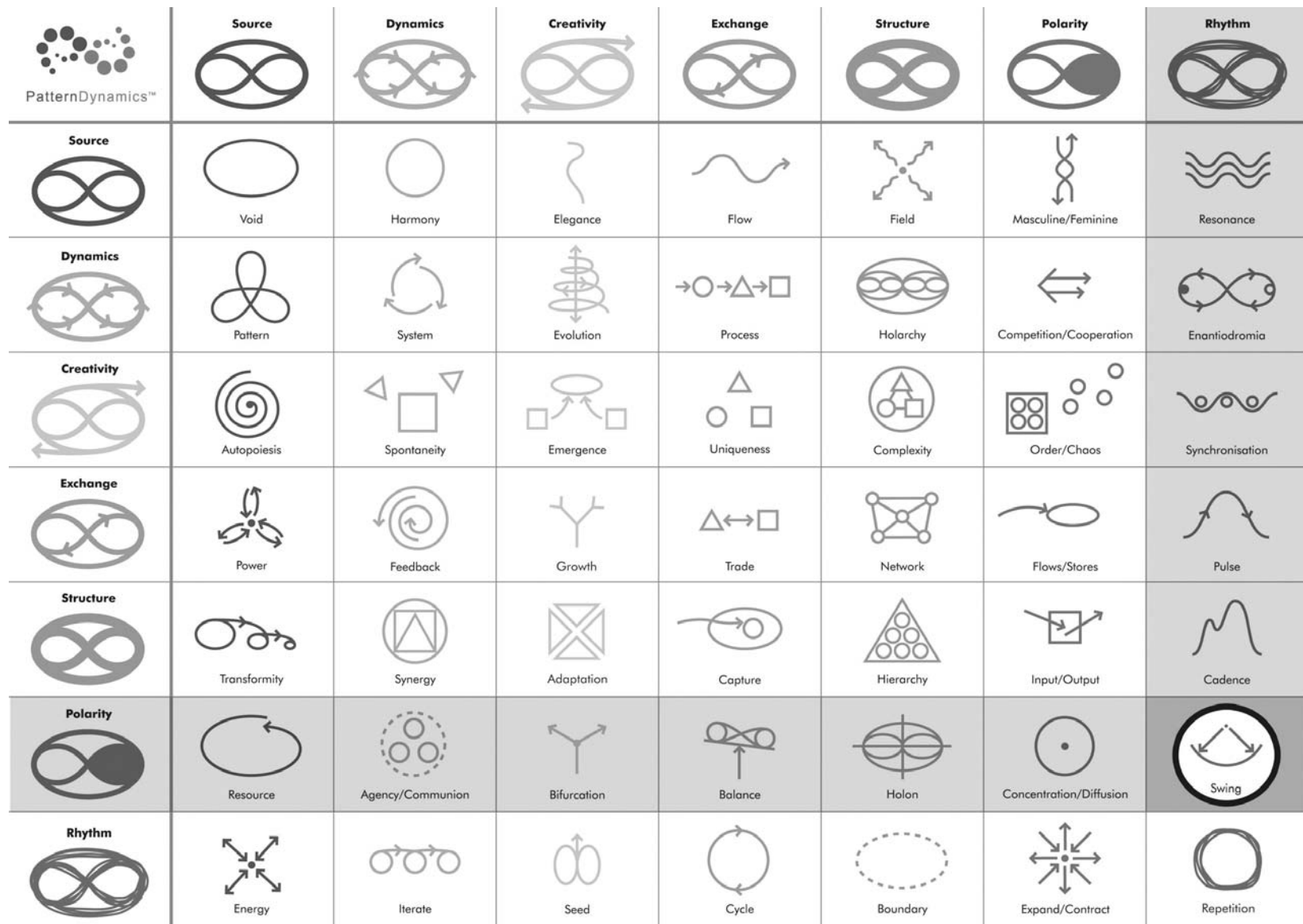


Figure 6. PatternDynamics™ (PD) chart showing derivation of a second-order pattern. For the full PD chart, see Appendix I.

The remaining 49 second-order patterns are all aspects of first-order patterns: seven second-order patterns are derived as aspects of each first-order pattern. For example, the seven second-order aspects of Rhythm are Repetition, Swing, Cadence, Pulse, Synchronization, Enantiodromia, and Resonance. To derive the second-order patterns, the first-order patterns are used to create a matrix (Appendix I). Where two patterns intersect the first-order pattern from the top represents a major aspect and the first-order pattern from the side represents a minor aspect of the second-order pattern created at that location. For example, Rhythm (top) intersects with Polarity (side) to create Swing (Fig. 6).

History of PatternDynamics™

Now that the structure of PD has been described, we can explore how to use it as an effective language in sustainability in general and climate change in particular. Before we do that, though, I should explain the development of the PD system, and why I think it is important apart from the theoretical reasons given so far. Up to this point, we have discussed, for the most part, concepts that existed before PD—ideas that other people have discussed, endeavored to prove, and formed opinions about. We have also gone through the basic organization of the PD system itself. These concepts form the theoretical and conceptual foundations supporting PD. From this point forward, though, we are venturing largely into the territory of my own experience. PD is a language I created to formalize a way of experiencing, understanding, and communicating about the world that I intuitively developed as an Integral Sustainability practitioner.

I created the pattern set by first locating the 49 second-order patterns. The selection of these patterns was straightforward and somewhat arbitrary—I simply wrote down the names of all the major natural patterns that I had learned to identify over my years of working in sustainability. When I put them into like groups, I realized that useful names for these groups were Rhythm, Polarity, Structure, Exchange, Creativity, Dynamics, and Source—the first-order patterns. Source was also the word I chose for the name best representing the common quality of *all* the first-order patterns. I think there are multiple ways of coming up with patterns for a sustainability pattern language, just as there are multiple sets of sounds used as the foundation of verbal languages. The set of patterns only has to be universal and comprehensive enough to build composite diagrams for patterns that are not included in the set. I will explore a few examples of this shortly.

I have spent the past 15 years deeply engaged in the practice of sustainability: experimenting in sustainable living, engaging in sustainability education, and working as a sustainability contractor, ecological systems designer, and consultant. I am constantly studying sustainability theory and observing the world around me to confirm principles I can rely on to rationalize and communicate my approach to sustainable endeavors. It is not possible to describe the nature of each pattern here as the required foundation for using PD as a language. (I am currently writing an introductory handbook to help with this task.) That given, more theoretical discussion will not be the most fruitful way for us to complete this article. To gain the fullest understanding of how the language works in this short introduction, perhaps the best way forward is for me to use a few easily recognizable parts of it to tell you a story—a story that ties back to the anxiety we can feel around issues in sustainability, its roots, and its resolution through the communication of more integral perspectives. This story is, in many respects, my own journey to a more integral approach.

Communicating Through Perspectives

Limited Perspectives

Looking back across my experiences in sustainability, it is clear that much of the time I was looking at the world from a limited perspective. This perspective served as a kind of lens. It was a lens that was fixed in one place, pointing in one direction, and, of course, I saw mostly the same things when I looked through it. Many of the people around me were looking through the same lens, and we told ourselves the same stories about what we were seeing. This lens, of course, was my worldview shaped by my generally green level of altitude, and it was focused on the ecosystems of the LR quadrant. The stories we told each other were my culture. What I saw contained a great deal of truth: the ecosystems of the Earth were being degraded by the activities of modern industrial economies; these industries were growing rapidly around the globe; and the limits to biophysical growth were close and getting closer. Needless to say, this fixation generated a lot of anxiety and fear. I believed that the planet was under threat and so was the continued existence of human civilization.

I still think this is true: true, but *partial*. And there is the rub. A partial truth held exclusively, it turns out, can be a terribly ineffective truth. The parable of a blind man feeling different parts of an elephant and then arguing over what an elephant was really like—from their limited perspectives—makes this all too clear.

Integral Perspectives

After a time, the limitations of the more dogmatic aspects of my worldview became apparent. For example, I observed in my forestry work that not all logging was a bad thing. Forest ecosystems could be harvested sustainably, even on an industrial scale, if it was done in harmony with natural processes. Participation in intentional communities also made it clear that a focus on Earth repair was not an adequate approach to organizational development or to creating effective cultures that supported intentional communities. I began to observe processes in nature like competition that were not seen or acknowledged because they did not fit with the story we told each other about the beauty and cooperation of nature. After a time, exclusive identification with the level of green altitude shifted and my worldview started to change. Integral Theory was immensely helpful at this time, as it helped me to see that I was stuck in one perspective and that by taking other perspectives I could resolve some of the incongruities and difficulties that were starting to emerge.

Simple strategies like including amber altitude capacities in structuring community and orange altitude abilities in economic achievement *as well as* green altitude creativity and sensitivity in my sustainability projects made a huge difference to their effectiveness and health. Recognizing that sustainability had to include perspectives and practices to nurture the self (UL) and culture (LL) in conjunction with Earth-care work in nature (LR) also resolved a lot of pain and dysfunction in my life and work.

After developing some familiarity with the integral practice of shifting perspectives, I uncovered a strategy for presenting my now somewhat unconventional views on sustainability by relating them to natural patterns. After all, these patterns had endured for billions of years as life evolved on Earth, so using them as principles for sustaining human society made a lot of sense. One of the most effective things about this approach was that it provided me with a way to talk about sustainability issues in a neutral, non-violent manner. Using this approach with regard to climate change, for instance, means that we can do away with the conflict associated with labeling each other “deniers” or “alarmists.” This sort of conflict is rooted in people with limited

perspectives denying the truth of other perspectives. What we know, though, is that each perspective contains some truth, however small it may be, and that it is much more effective to include that truth for discussion rather than to eliminate it altogether.

Using PatternDynamics™

I will demonstrate some of the uses of PD by continuing my discussion of climate change. The PD pattern Boundary represents the principle that systems at all scales and in all domains have limiting edges that form interfaces and barriers with the greater systems around them (Appendix I). They also *contain* the elements of any system as a “whole.” One of the important boundaries in climate change is the interface edge between the outer atmosphere and outer space. This boundary represents the outer edge of our biosphere or its *limit*. It is thought that we are approaching the *limits* of the biosphere’s ability to deal with carbon dioxide as an *output* from the human economy. Boundary is therefore a critical principle for understanding and communicating about climate change.

Intralevel Communication

Because PD patterns are at this stage culturally neutral symbols, they can be associated with images and words that resonate with different altitudes. This gives us two important strategic advantages for talking about climate change. Firstly, it brings a principle like “boundary as limit” into the discussion. If everyone can agree that limits exist in principle, then we have a basis for discussion. In contrast, if limits are denied as a concept, then it is difficult to talk meaningfully about climate change on any level. Secondly, by illuminating the principles through the use of neutral patterns in association with images and words meaningful to different levels of altitude, we have the basis for intralevel discussions.

In my experience, people at amber altitude tend to relate to the principles represented by the patterns as common sense. As in, “It’s just common sense that farms with animals need fences.” People at orange altitude tend to view them in economic terms, as in the boundaries of a franchise area or the limits to budgetary expenditure. Green altitude marks the point where people identify the patterns primarily in nature (as in ecosystem boundaries and ecological edges), while those at teal altitude seem to see principles as conceptual realities at all levels of the domains of self, culture, and nature. Turquoise altitude experiences the patterns as glimpses of the subtle archetypal organizing habits of a Kosmos infused with living presence.

I do not have evidence to support the descriptions above except for personal observations and limited feedback from people conversant with PD. Nonetheless, my own intralevel communication attempts using the association method above seem to work quite effectively.

PatternDynamics™ Methodology

I have also developed a simple methodology so Integral Sustainability leaders can have comprehensive discussions about sustainability issues in combination with the AQAL framework. In this sense, the PD patterns could be thought of as a set of horizontal perspectives that can be applied to add more nuance and detail to sustainability topics located within the broader Integral framework. This methodology has a simple three-part formula: 1) we scan to identify the patterns related to the topic under discussion; 2) we evaluate and prioritize

the patterns for their relevance to the issue at hand; and 3) we balance and integrate for health.

Doing a PD scan helps to make sure we are touching base with all of the important aspects of a sustainability issue. Going back to climate change, scanning for all of the relevant patterns could include a multitude of patterns from the PD chart. I will include System, Energy, Cycle, Balance, Growth, Complexity, Flows/Stores, Inputs/Outputs, Swing, Pulse, Feedback, and Holarchy. Without going into the PD definition of each of these patterns, it should be clear that most of them have some relevance to climate change. Many of these words are used to talk about sustainability and climate change at conferences, in the media, and among sustainability professionals. Mostly this is done in an ad hoc way, except within a few specific systems disciplines where there is a consistency of terminology. There is a general, but inconsistent, systems “lingua franca” at work in sustainability, and part of what PD does is to provide a simple, consistent framework for communicating in sustainability using systems language. This is similar to how the AQAL model allows experts from divergent disciplines to share a language and have new kinds of conversations that were not possible before. The hope is that PD, or something like it, can be adopted widely enough to provide us with a kind of global sustainability literacy.

Scanning helps to make sure we do not get stuck in limited perspectives, but most of the time it is not useful to include all of the possible patterns. Evaluating the evidence supporting the importance of each pattern allows us to prioritize the most important ones. Everyone will read the evidence differently, but the important factor is that no important perspective has been ignored. In other words, we are having a comprehensive conversation with the intention of integrating truths in an effective manner. Having evaluated the evidence supporting the importance of the patterns listed above, I have chosen four to raise a point for discussion: Boundary, Input/Output, Growth, and Swing. I have combined them into a composite meta-pattern that illustrates a dynamic pattern that I think may be at work in climate change (see Fig. 7).

As discussed above, the Boundary pattern illustrates the principle that we live in a limited environment. The Input/Output pattern represents the principle that all systems are embedded in larger systems. In this case, it is the economy that is embedded in the biosphere; it is dependent on receiving inputs like oil, gas, coal, ore

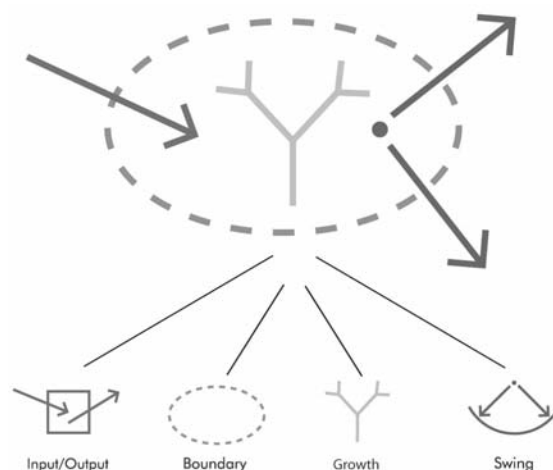


Figure 7. Individual PatternDynamics™ pattern combined into a meta-pattern.

bodies, water, plants, and animals *from* the biosphere and also for dispersing outputs like carbon dioxide, methane, heat, water vapor, other industrial pollutants, and sewage *into* the biosphere. The growth pattern demonstrates the principle of natural exponential growth, in this instance of the human industrial economy. The Swing pattern illustrates the principle of extremes (i.e., polarized situations that are often destructive and difficult to maintain).

Putting these patterns together into a larger meta-pattern represents my belief that people advocating the extreme AGW view may have an unhealthy fixation with destructive outputs of the economy. I state this for a few reasons. First, the extreme AGW view ignores some very good evidence about the decline in inputs to the economy as a major threat to civilization. Second, there is also good evidence to support the fact that there simply is not enough available oil, gas, and coal to output enough carbon dioxide to create the dangerous levels factored into the Intergovernmental Panel on Climate Changes climate models (Alekklett, 2007). Finally, I think that, like my own initial perspective in sustainability, the extreme AGW view is fixed on LR quadrant ecosystems from the perspective of green altitude. The mono focus, hypersensitivity, anxiety, and fear that are often generated from this view may be creating an unwarranted extreme position. You might ask why this is a problem if we need to curb industrial growth anyway?

The extreme AGW view, which is currently driving climate change discussions, is causing a culture war. I do not think the evidence is strong enough for a position this extreme, and I believe many people not at green altitude feel the same way. Leveraging this view could turn out to be a very destructive strategy. Moreover, we need to ask ourselves if there are possible downsides to being wrong about the extreme AGW hypothesis. What if the biosphere actually can tolerate higher carbon dioxide emissions? Is it then ethically tenable to stymie the developing world's use of coal? Will this eliminate an effective strategy for a sustainable future by condemning the bulk of the world's population to poverty and ethnocentric levels of altitude? I am not at all sure that my assertions based on the patterns above are correct, but I am sure that it is a better way to have the conversation—far better, I think, than reacting from the fear and anxiety of a limited perspective.










































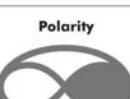








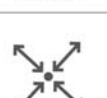






Conclusion

I will conclude with a few remarks about the fear and anxiety I have seen around sustainability projects. Foremost, I think our fears are rooted in an inability to predict and manage the level of complexity we have created in developed nations. Unmanageable global, dynamic systemic complexity and the threat of collapse are getting the better of us, and this uncertainty is generating unprecedented levels of underlying, existential fear. A key to dealing effectively with this complexity and alleviating our anxiety and fear lies in the last element of the PD methodology: balance and integrate for health.

Complexity by its very nature overwhelms the human capacity to know it and manage it. My proposition is that we do not have to deal with it that way. The systemic processes on planet Earth have been guided by an inherent systemic organizing capacity for health and development since the dawn of evolution. If this were not true, we would not be here. This process is natural and we can work with it simply by removing the blockages that hinder its development. The best way to do this is to learn to identify the natural dynamic patterns of organization at work in our world and then to balance them where they are unhealthy (by bringing them back from some extreme) and integrate them where they are missing. The rest will take care of itself. With an

Appendix I

PatternDynamics™ Matrix Layout™

 PatternDynamics™	Source	Dynamics	Creativity	Exchange	Structure	Polarity	Rhythm	
Source								
Dynamics								
Creativity								
Exchange								
Structure								
Polarity								
Rhythm								
		Energy	Iterate	Seed	Cycle	Boundary	Expand/Contract	Repetition

TM

Integral approach, we have the capacity to make the sustainable transition an opportunity in the development of human culture and an emergence of evolutionary possibilities. I believe also that global pattern literacy has a role to play in the unity of action required for enduring health on our small planet.

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Ken, II, MI and the State of My Integral Enterprise

“Techniques employ four qualities that reflect the nature of our world. Depending on the circumstances, you should be: hard like a diamond, flexible as a willow, smooth-flowing like water or empty as space.”

Morihei Ushiba (1972, p. 71)

In writing this piece I’m feeling a little like the guy who asks what might be a really dumb question in an auditorium full of really smart people. Intuitively, deep in my gut, I feel like I need to start a conversation, but I’m not really confident about how it’s going to go. I can’t stop myself from putting my hand up, and, now that I’m speaking into the mic, I’m getting those cold sweats down my spine and my stomach is in a knot.

I’m not sure I’m necessarily the most qualified person to start this, and I’m not even sure it’s going to be as important to you as it is to me, but, if it *is*, then it’ll be worth the risk. And, I’m prepared to be flat out wrong about how to go about this. Starting this conversation is not just about the ‘Integral community’—to a large degree it’s also about my own journey in Integral and my need, at this particular time, to try and make sense of what is going on and what *I’m* doing within the Integral space.

The question at the heart of this conversation, for me—and this is what I’ve been struggling with for a while now—is exactly how do we find meaning in what has gone down with the ‘Integral Enterprise’ to date. What happened to all the promise, the confidence, the potential for the more evolved organisation of the larger movement itself? How did we get to this underwhelming state of affairs when we were meant to be so fricken onto it—when our whole *raison d’etre* is that we think we have a better way of doing this sort of thing?

Big Containers

I’m not talking about all of the great people and organisations using Integral theory in really useful and interesting ways, and I’m not talking about the many extraordinary practitioners and truly beautiful people in our community. I’m talking about the big container, or at least bigger containers, that I believe are meant to *hold* these initiatives and people in an integrated embrace. Why is it that at the wider ‘integrating’ level it feels so much like Integral has failed to live up to its potential, and, I might add, its considerable hype? What does this mean to each of us and to what we share through our participation in Integral?

Do we even need these big containers? I would argue that we do. One of the major things we agree on in Integral as a community is that interiors have exterior correlates and visa versa. So, while it is tempting to give up on the idea of Integral ‘institutions’, given what we have seen so far, I don’t think we can realize the potential of Integral consciousness to be of service in the world if we, if fact, do that. So, the ‘we’ I’m referring to is not just the Integral community at large, more specifically it’s those of us in the Integral community who see the need for more complex, more comprehensive types of organisations, but who want to see more functional,

supportive and enlightened ones—those of us who still think this is a worthy, if not essential, pursuit. It is understandable if you feel a little (or a lot) outside of this big container ‘we’ at the moment. Initially, I wasn’t even sure if I wanted to be a part of that ‘we’. This article is about how I did and the processes that brought me there.

There is an element of rationalisation in all this as well. I have made a commitment, a deep commitment, to participate in an attempt to create one of these bigger containers, but one that I think can actually be the kind of supportive, evolved, liberating structure that I hoped would be the norm. I think the dynamics associated with the failure to date to create these bigger structures in the ways we imagined them has caused a lot of hurt. Hurt to individuals, to reputations, to organisations, to initiatives and to the movement itself through a serious loss of confidence in our belief that anything Integral can actually make a real difference, not just in isolated instances (where I think it does), but in the *wider* world. How can it possibly if we can’t even get it right in our own community? If you haven’t guessed, I’m talking largely about dynamics many (myself included) feel to be have been associated with Integral Institute. To be fair, these same patterns can also been seen elsewhere in the Integral space. So, right now, being involved with these bigger projects in Integral seems tainted and risky, like their very nature might be to start with good intentions and big statements and then to degenerate into unnecessary exclusivity, unmet expectation, neglect, turf wars, power politics and empire building.

Being sure about why *I* should make a commitment to getting this big container thing right is difficult, and I feel more than a little vulnerable. I do, though, feel like I need to make sense of what has happened in the past, what is likely to be possible and not possible in the future, and to share this with all of you before my full capacity is going to show up.

I realised recently that I’ve been telling myself a story about all this— making it up and repeating it and shaping it into some sort of meaning. The most effective way I can think of to start this inquiry is to just tell that story as an invitation for further conversation and as a process for collectively *making* meaning.

MetaIntegral (MI)

I think it’s clear that there is now a widespread, real, and deep distrust (which I partly share) of any attempt to put in place these bigger structures. Why then do I feel so strongly about participating in the development of MetaIntegral (MI), an unabashedly big container that Sean Esbjorn-Hargens is founding in an attempt to make the integral space healthier in Integral?

The answer to this is partly a Douglas Adams type sentiment. Simply, that *every Tupperware set needs a few big containers*. You know, the one’s you can fit lots of the other smaller containers into when you go on a picnic or a camping trip. It’s the integral idea in a nutshell, really. Put simply, I still believe in Integral (and in the more generalised ‘integral arising’), and I think we need to get this right to sustain that belief.

Partly it’s that my experience to date, with Sean and within the nascent MetaIntegral organisation—which I will speak more about later—has been to find the kind of space, the kind of services and the kind of support that I wanted from the institution building

projects in Integral. I'm writing this piece in part to introduce and advocate for MetaIntegral. I like what I see so far. I think there is a need for it, and I am making a commitment to it. On that basis, I'm going to make a case for supporting it and for why I think it's different; but, if it turns out, in my view, not to demonstrate a healthy expression of 'the big container', I will equally apply my efforts to working out why and to letting you know about it.

What I've experienced so far with regard to MI wasn't enough though. Somehow that feeling and my trust in Sean were not going to allow me to fully surrender my resistance to this sort of project. I also had to make sense of a whole range of things that were bothering me through creating the story I mentioned above—a kind of meaning making narrative or mythos that I'll start by telling you a bit about my own.

What I'm Going to Tell and How

In this telling I'm going to try and do a few things. I'm going to try and make sense of Ken Wilber. Not in a comprehensive way (I might be a little impulsive, but I'm not nuts), just enough to tease apart a few distinctions that helped me come to terms with *my* perceptions. I'll have a go at the same for Integral Institute and its general design and function. Again, not in any sort of clinical way, but just enough to string together this story. And, I'm going to attempt to do this, in part, using bits of my own budding initiative, which is an Integral Pattern Language useful for this type of narrative building. Along the way we will do some compare and contrast between how I perceive MI vs II, some of the Patterns they share, ones they don't, ones I think we need, and what a difference I think a shift in perspective can make.

At this point I'll introduce PatternDynamics (PD)—my Integral application. (See www.patterndynamics.com.au) Technically I refer to it as an Integral Sustainability Pattern Language. It forms, to switch from the Tupperware metaphor, an element within the emerging MetaIntegral ecosystem. It's useful for shifting conversations to a 'systems view', or more fully perhaps to a 'perspectival systems view' (which is one of the ways that I tend to think of integral capacity). From there, collectively, we can gain some objectivity on dynamics we may be immersed in or are only able to sense emotionally or intuitively. This is the same subject/object move that we get through using the AQAL elements. In this case, instead of having five AQAL elements (oriented as a theoretical framework) we also have 56 PD Patterns (oriented more as a semiotic process: a conversation). Like the AQAL elements, all of the Patterns are generally observable *types* or *forms of organisation* that help us make distinctions where we may not have been able to do so before.

For the more theoretically minded—you *can skip this paragraph if you're not*—I view the AQAL framework as representative of a set (but by no means *the* set) of foundational 'patterns of organisation' or 'types' or 'forms'. These are what I refer to as *meta-types*: observable *general forms* that seem to pop up literally everywhere. I also view the AQAL framework, from a big-picture, historical development vantage point, as an approach to the wider integral impulse with a distinctly first person orientation. For me, more than anything else, it's been a visionary and truly profound theory cooked up in Wilber's first person and transmitted to our first persons. I think of AQAL Integral as being associated with a distinctly first person, interior 'understanding' and personal development type orientation. I'm not saying that's all it

is, only that it feels very much like that's its native orientation. All of which is fine. In fact, I think this dynamic, and this is part of the story, has been essential for having anything we refer to as Integral at all. But, at this stage, and this is a theme to which we will return, I think it is appropriate to explore just what a more second person, community development, developmental orientation might look like within our capital 'I' Integral. That's why I'm interested in *language* as an approach to Integral; Integral as a capacity for conversation and story and *meaning* as well as a theory or theories. All of this is tied up with my own thinking on meta-types and the perceived need to start shifting our emphasis from a first person, theoretical, vertical, evolutionary focus to include a more second person, community emphasising, horizontal, health orientated focus. If you want to start in on *that* conversation then you can check out this paper, *Creating Cultures of Sustainability*, by clicking Winton at www.integraltheoryconference.org/talks

My Story

Ok, back to the story. This isn't the first time I've been a participant in movements that have undergone the kind of dynamic I'm talking about: where theory failed, at least in the first instance, to translate into the kind of community reality that the particular theory postulated. I've been a practitioner and community member of both Aikido (<http://en.wikipedia.org/wiki/Aikido>) (a Japanese martial art referred to as 'the art of peace') and permaculture (<http://en.wikipedia.org/wiki/Permaculture>) (a global sustainability design and lifestyle movement) for the last 20 years. Like Integral, both have powerful and charismatic founders, Morihei Ushiba (http://en.wikipedia.org/wiki/Morihei_Ueshiba) and Bill Mollison (http://en.wikipedia.org/wiki/Bill_Mollison) respectively; both claim to have methods that will dramatically improve things for humankind if practiced widely. In the case of permaculture, it has two founders—the other, and equal partner, being David Holmgren (http://en.wikipedia.org/wiki/David_Holmgren)—however, it was Mollison who evangelised permaculture as an ideal in sustainable global community living.

In both cases when it comes to the larger scale organisation of the communities of practitioners themselves, I've witnessed the same old kinds of ego trips, power plays, political manoeuvring, poor behaviour and community dysfunction that I've experience outside these disciplines. Sound familiar? In limited instances and in limited scope both can and have produced demonstrative improvements in some aspects of human affairs, but not widely enough, even within their own communities, to serve as exemplars that drive an uptake within the mainstream of society that fundamentally alters it. Were their founders actually able to demonstrate this personally and within their own communities? It doesn't actually seem to matter. I didn't know Morihei Ushiba since he died two years after I was born, but my feeling is that while perhaps he could be difficult and enigmatic, he was indeed the kind of figure who walked his talk and was revered for it. I do know Bill, and I do not think this is true of him. Much of the time I thought his behaviour seemed to demonstrate exactly the opposite of how you might go about building sustainable community. But that's another story. You can read about that one here in *An Integral Permaculture*. (www.thepatternguy.com/2012/05/21/an-integral-permaculture/)

I'm a fairly practical sort of bloke, so my interest has been primarily in testing the theory of these two disciplines through embodied practice and application to 'real life situations'. I've done the same with Integral Theory. What I found was that some of the grander claims, not necessarily all made by their founders—often by their closer followers—were not in fact able to be substantiated. After road testing permaculture as a complete and viable strategy for sustainable community living during a ten-year residential education centre experiment, I concluded that it was not. But, this has been one of its major claims and what sold me on the idea in the first place. (This probably speaks as much to my naivety as to shortcomings in the discipline, but there you go.) This failure along with the above mentioned all too human behaviour and what seemed like an almost pathological tendency to perpetuate this myth on other unsuspecting but well intentioned people, caused me to completely fall out of love with permaculture for a while. This was especially so because along the way I took a few hard knocks and at times felt bruised and bloodied from trying to put in place something that was promoted as a practical ideal, but that the theory could not really support. Adding Integral theory and practice to permaculture in this instance did, however, yield some real and tangible improvements to the project. It's one of the main reasons I still have faith in the ability of integral approaches to make a real difference in the world. That story is available in *From Deep Green to Second Tier: Sustainability at the Threshold* (www.thepatternguy.com/2012/05/21/from-deep-green-to-second-tier-sustainability-at-the-threshold/)

After some time and some distance away from that crucible, I was able to look at the situation a little more objectively. I was able to see permaculture's strengths *and* weaknesses and to take stock of what I learned and what did actually work. Practicing permaculture is where I gained the skills to work in sustainability education, ecological design, forestry and organic agriculture—vocations that I think are useful and that I truly love. Also, through Mollison and Holmgren's focus on natural patterns and principles, it became the foundation—along with aspects of Aikido, a lot of time in nature, architectural design, complexity and systems theories—for the 'perspectival' systems awareness that I brought along to my Integral turn and subsequently used to develop PatternDynamics.

In comparison, road testing Aikido turned out to be relatively simple. Despite what you might read on martial arts forums and despite having trained mostly in one of the 'softer' styles of the art, there is a police video somewhere that illustrates that if you are inclined to neutralise an attacker then Aikido works well enough 'in the street'. I also think it is unsurpassed as a body/mind integration discipline. It wasn't the stitches in my lip from my street encounter that hurt when it came to Aikido. It was the disappointment of witnessing masters I revered and trusted dispute, in ways that should have been well beneath them, who had rights to what pieces of the art of peace. Sadly, I've encountered similar stories through conversations with aikidoka from around the world.

One of the things I've taken away from these experiences is that theory is one thing and practice is another—especially with regard to the wider community of practitioners. For me, there is clearly a pattern at work in all this. In the world of theory there is no requirement to demonstrate its practicality. The cut and thrust takes place behind a computer terminal or at conferences. I don't want to downplay the kind of intersubjective violence to reputations, feelings, livelihoods and such that can go on here, but for me it's in putting theory into *practice*, especially at the larger scales,

that one encounters, shall we say, a fuller spectrum and deeper experience of the proverbial rough and tumble.

Sensing the Field

My sense of the general sentiment in the Integral ‘field’ at the moment is that there are quite a few of us who are feeling, to one degree or another, underwhelmed, distrusting, disappointed, disenchanted or, in fact, bruised and bloodied by *our* initial period of practice, *as a community*. What interests me about the Integral dynamic at this time, and what has helped me to story this in a way that makes me want to continue, is that there are archetypal patterns at work. Uncovering *those* stories has helped me to acknowledge how I’m feeling emotionally and also to shift my perspective so I can view things more objectively. As a collection of stories, as *patterns* that have been repeated many times in the past—as a set of cultural *meta-types*—it all starts to make a little more sense.

Looking at it this way, it’s much easier to resist some critics’ views that Ken Wilber is somehow defective, Integral is defective, its big institutions are flag waving, inherently exploitative empire building enterprises or ‘look-at-me clubs’. And, therefore by association with them, I’m defective, and that the whole thing just isn’t going to work the way we thought. Some of this criticism is undoubtedly partly valid, however the flaws in Integral are most likely not congenital. Having worked through some of this stuff now, I don’t feel like that is the case at all, and, frankly that’s a big relief. Like many of you, I’ve invested a lot of life energy and identity in being a part of Integral.

I’m going to start to tell that more archetypal story now—at least the story as I see it. Again, it’s not my intention to tell you *the* story. I’m putting this out there as a process that is working for me, and that can serve to *start* a conversation that might help to do the same thing collectively. I’m going to use both PD Patterns and AQAL Perspectives to do this. To give this method the best chance of success, we are going to have to touch on just a couple more aspects of theory. You see, even in promoting a more second person, culturally orientated approach, I’m going to have to use a little first person orientated theory. That is the first bit of theory: even though it might be appropriate to orient around one perspective to explore or explain a given situation, we are still going to have to work multiple perspectives. The point is to be able to ‘shift’ these perspectives as necessary—focusing on the shifting as much as the perspectives themselves. The same requirement for shifting is true of the Patterns, which we will get to in a moment. Secondly, it’s all about balancing and integrating these Patterns and Perspectives in a given situation to enable ‘generative health’—what my good friend and Integral colleague, Will Vary, refers to as ‘Apithology’. (See www.apithology.org).

Ken

The first Pattern I’m going to introduce is one that will be familiar: the Holon. I’m doing it to help us discuss the story of Ken. When I said I was going to try and make sense of Ken Wilber, I didn’t mean so much Ken the person, I meant more Ken the figure. I don’t know him personally and our few communications have been short and mostly one way, so I won’t be focusing on that, although, I will have a few things to say based on what I *have* experienced. I’m doing this because I think we need to find

a story for Ken, one that allows us, the community, to put him in the proper relationship to the constellation of Integral activities and its overall development. If not, we will be stuck trying to work out how we feel about Ken, and by extension Integral Institute, as a series of subjective and intersubjective judgements, and we will not be able to look at these things more objectively and therefore move on. This kind of collective ‘object making’ is the whole point of the larger story I’m trying to tell here, but I think it is most important with regard to Ken, given the magnitude of his presence with regard to Integral as a whole.



Click [here](#) to see a fuller description of the Holon Pattern

The two inner ovals of the Holon Pattern above represent systems that are parts of a larger system, signified by the enveloping larger oval. Each of the three ovals also has an inside and an outside symbolising the subjective and objective aspects of any part/whole ‘system’. The inclusion of the cross is an acknowledgement that Ken came up with this holon as part/whole/subject/object insight, which I think might just prove to be the contemporary equivalent of inventing the wheel in terms of how it ultimately serves humanity. This inclusion also acknowledges that he created the quadrant symbol to help represent the holon. This last part, creating a diagram or a ‘Pattern’ to represent a foundational ‘pattern of organization’, perhaps the most foundational pattern of organization, or what I mentioned earlier I refer to as a *meta-type*, seems less important, in this case, than the theory of the holon itself. It is architect Christopher Alexander, founder of the concept of Pattern Languages, who relates the full power of this act when he states in his earliest book on the subject, *Notes on the Synthesis of Form*:

“... I found that the diagrams themselves had immense power, and that, in fact, most of the power of what I had written lay in the power of these diagrams.” (Alexander, 1964, preface)

That said, you will notice how my Holon Pattern is a softer, more shapely, more feminine, more relational and more horizontally emphasizing signifier of the nature of the holon.

So what does this have to do with Ken? Well the first part of the story is that some of the features of Ken’s behaviour, as they relate to the Integral community at large, can be characterized through a particular orientation to the holon. What I mean by this is that his actions tend to gravitate to the very agentic, ‘part’ aspect of the holon, and also to the interior side of things. We don’t need to get stuck on this. I certainly don’t think Ken does, but it does look like it’s been his basic orientation to the holon as it relates to his work in Integral. This is precisely the very powerful and agentic first person approach I alluded to earlier that enabled Ken in creating Integral theory, in passing it on to us, and then in launching it as a potentially historically important cultural force. I don’t think this sort of thing happens very successfully by committee, or by folks with less robust interior capacity, so it’s just as well. This is Ken as Master-capital ‘M’. The Master we sought out in the beginning, the Master we

revered for the awesomeness of this capacity, and the Master, truth be known, we projected our bright shadows onto and fell in love with, turbo charging the launch of Integral in direct proportion to the magnitude of his offering, which was, in both cases, really very large.

So far, so good: Ken as Master looks like a good fit—a pattern and a perspective *balanced* and *integrated* to serve the process at hand. I don't think this is as true for the next part of the story. Once Ken had formed his theory suitably and given it that all mighty push into the world with the help of initial supporters, I sensed that things subtly started to change. This is especially true of the development of the initiatives of Integral Institute, Ken's main institutional vehicle and Integral's first and most central 'big container'.

Integral Institute

The next Pattern I'm going to introduce is Hierarchy. The composition of the diagram itself illustrates the meta-type it represents: a wide base at the bottom, concentrated power at the top, all held in a very stable and somewhat rigid configuration.



Hierarchy

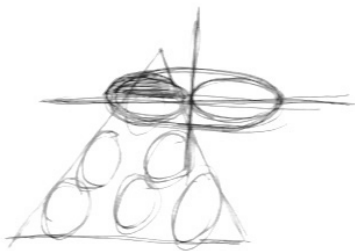
Click [here](#) to see a fuller description of the Hierarchy Pattern

I still remember the excitement I felt around some of the earlier initiatives announced by the newly formed Integral Institute (II): the Multiplex (<http://www.kenwilber.com/blog/show/71>), the emergence of Integral Naked (<http://www.integralnaked.org/>) and the Seminars run by various centres within II, to name just a few of what seemed like a steady fount of big ideas and bigger projects. By the time I attended the first Integral Ecology and Sustainability Seminar (<http://www.world-wire.com/news/0716040001.html>) hosted by II at the Westin Hotel near Boulder in 2004, it was clear that many folks had gathered and were continuing to gather to work with Ken and II. Some of them had clearly uprooted their lives and moved to do just that. The promise of Integral at that stage was big enough that part of me wanted to do the same thing. It's exactly what I did when I went to train with Bill Mollison early in my permaculture days, but this time I had learned enough to see the wisdom in a little more distance.

Even having invested in travelling all the way from Australia to attend the seminar, I was prepared to be somewhat underwhelmed. I was not; the folks who organized this event and the folks who turned up, people like Barrett Brown (<http://www.kosmosjournal.org/bios/barrett-c-brown>), Gail Hochachka (<http://integralwithoutborders.org/team>), Cynthia McEwan (<http://www.voiceamerica.com/guest/5640/cynthia-mcewen>), John Schmidt (<http://integrallife.com/contributors/john-schmidt>), David Johnston, (<http://integrallife.com/contributors/david-johnston>) Sean Esbjön-Hargens (link to be added) and many others gave me an experience of Integral and of that community that made me feel like I'd finally found my people. Ken spoke to us twice. It was clear enough to me then that while he was a Master worth seeking out, there was not going

to be a whole lot of Grandma Zen going around when you were close to him, if you know what I mean. That is fine with me. I'd worked out through my previous experiences that the idea I had in my head about how it would be to work with these sorts of Masters, was not necessarily how Masters worked. Ken, in my view, clearly has a genuinely and profoundly Big Heart, but it was also clear that his very powerful presence and agency would have the biggest influence on the form of II as an organization. Integral Institute always felt like a kingdom to me and that's why I introduced the Hierarchy Pattern—Ken as Master in the concentrated seat of power and influence at the top of the unyielding Kingdom of II.

As I add Patterns to this story (like the nice looking ones above that I prepared earlier: Holon and Hierarchy) I'm also going to add them together in mono-colour hand drawn composites that represent the story as a whole. This is to illustrate how the Patterns can be used in this type of conversation (without having to be an expert at Adobe Illustrator) and to encourage some of you to look through the Patterns and Charts on www.patterndynamics.com.au to use them to engage in the conversation as you see it. It's also to demonstrate that the Patterns themselves are more like elements of an alphabet and that it's the way they are compiled into larger units of meaning that makes them a language.



Meta-type: Master of the Kingdom

Master and Apprentice

By the time I attended my second seminar in 2006 at the now familiar Westin Hotel, I sensed a real shift in the Integral communities' relationship to Ken. Boomeritis, his tongue in cheek critique of extreme postmodernism by way of a novel, had been published since 2002. In the meantime there had been building what can only be described as an online war with some of his critics. Not all of the conflict was around Ken's views on the pathologies of what he thought of as a deep narcissism infecting parts of the postmodern baby boomer generation, but this general critique of it did seem to be the fuel that fed the fire. Things at Integral Institute also appeared to be in disarray. At the time of the seminar the previous CEO of II had just departed in less than convivial circumstances, some of the other folk involved in II appeared to be in fire fighting mode and others were clearly dismayed and rethinking their involvement. I've always interpreted these goings on, both online and off, as the result of Ken trying to make distinctions between what was Integral and what was a lesser interpretation of Integral that threatened the integrity of the system.

If you are interested in Integral Theory in any way, this is just something you have to come to terms with. It's a lot easier for many of us to turn a blind eye to this difficult and somewhat awkward reality and to remain in the warmer, fuzzier world of

pluralistic, egalitarian beliefs and values. Grandma Zen might allow you to stay there, but not Ken Zen. Masters are not in the business of making you comfortable. They are in the business of shifting your awareness.

Some of you may find this part of my story somewhat controversial, but I think what Ken did here was necessary; and, now that the hard work in making this bigger distinction has been done, it is something that needs to be maintained in a myriad of smaller ways within our community. This has always been a real *Jesus-chasing-the-money-changers-from-the-temple* kind of effort for me. And—we crucified him for it.

I think this period in the history of Integral illustrates one of the main dynamics in our relationship to Ken. Ken, perhaps harshly or unskillfully or heroically, depending on your perspective, making repeated efforts to cut out those who would seek to debase the system—at least as he saw it; and then a larger and larger group of us being uneasy, then dismayed then horrified at the consequences. Clearly he has his supporters, and there are enough of them acting in good faith that they cannot be discounted, nor can the truth, however partial, associated with these actions be denied.

Now we need to tease apart Ken's actions as Integral Big Heart from Ken as a human being—a human being, like the rest of us, with flaws. This story is not about white washing flaws in Ken's behaviour. Far from it: clearly there have been some and they can look mighty big, but that is the whole point, and it brings us to the crux and core of our story. Are we Integral critics, the *authentic* ones, going to have the courage and humility to stand up, to do *our* best in carrying on the lineage, and to know that it is inevitable that we will make mistakes, and that our flaws will also be magnified and that, in this, other people will hang *their* dark shadows onto us in the same way we have hung them on Ken? Will we be grounded enough, also, to resist the temptation to exploit the energy of the bright shadow?

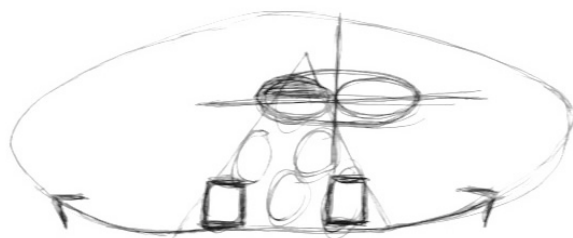
The real story here is the archetypal story of the Master and the apprentice: first we revere her and seek her out, then we learn from her, then we see her flaws and limitations. Given that an immediate cure for the human condition seems unlikely, and given that progress has only ever been made through learning from mistakes, are we, then, ready to emerge from the Master's shadow—or, rather, *our own shadow*, the shadow we have hung on the Master—and face this inevitability? Is there not *some* truth in this in relation to how we collectively feel about Ken and II? Are we not to some degree projecting onto the Master what it means to step into *our* own mastery? *Am I not?* Are we ready to own this? If we are, then the story goes something like this: Ken is a Master with a big Big Heart and also a human being with flaws, who being aware of these two realities, the inevitability of mistakes, and the inevitability of the projections he would face, subjected himself knowingly to the slings and arrows for the good of the greater whole, *as he saw it*. Now each of us can evaluate the need for these actions and the elegance, or lack thereof, by which they were executed, but, if we are honest with ourselves, it is now a lot harder to think that Ken was not acting in good faith, with authenticity and, indeed, with a very Big Heart. You might think it is a flawed Big Heart, but keep in mind, *they all are*. The alternative story, that Ken's personality is somehow defective and that he is profoundly unaware of what he was doing, just does not make enough sense—*by itself*.

Transcend and Include



Click [here](#) to see a fuller description of the Emergence Pattern

This is all a part of Emergence, the next Pattern I would like to introduce. Collectively we are called into the advanced stages of emerging as Masters in our own right—it's that time. As the Pattern above signifies, this emergence takes elements of previous systems (the little squares) and 'pops' them to a new level (indicated by the arrows), creating a new form (the oval). This story illustrates the classic developmental sequence. First we identify with a given level—the level we are trying to master—then we have to dis-identify with that level as the necessary start to *transcending* it. Then if all goes well, we swing back around and *include* what we dis-identified with and then *emerge* as a healthy integrated, much different and hopefully more complex whole. If we *don't*, well, then we have a shadow. And, really, do we want the figure of Ken lurking around in our collective basement? That would be way worse than underwhelming—way, way worse! Developing the awareness to find a story for Ken that contains enough truth to allow us to embrace him as we transcend him is a much better option. I'm not interested so much in whether this is *the* story of Ken, as finding out what *is*, through the *sum* of our perspectives. I might be wrong about the amount of truth in this story, but what I do know is that however we collectively story Ken as a figure in Integral, we do in fact need a story, and we need to agree on its truth. So, if you think I am off base, please treat this as an invitation to discover *your* truth and to tell *that* story.



Meta-type: Emerging from the Master

So, the answer to my initial question is that we arrived here because to one degree or another it's where you arrive in the development of a movement when the community as a whole begins to transcend the original Master. Yes, I still think it's accurate to describe Integral as a movement, and, yes, things might have gone better, but they could also have been a lot worse. Our 'we' actually exists, and that is no small feat. And, yes, the big container thing has not met our expectations with regard to all the hype around what Integral was going to achieve. It might also be interesting at this point to ask why, if we felt *the* big container wasn't working out, didn't we do something about it? Why did we just default to the idea that Ken was the only one who could do this sort of thing?

Hype and the Energy of the Bright Shadow

My biggest criticism of the behaviour of Ken and II is all the hype. It's really just borrowing from future successes and therefore borrowing from the community. In this case, it also amplified a very powerful dynamic—what I'm going to call the 'energy of the bright shadow'. This is when we give our energy, resources and attention by projecting our higher potentials onto a figure, or figures, that we think represent the realization of those potentials. Working with this energy is always risky, potentially dangerous, and susceptible to abuse. It requires a strong duty of care. The projectees, it must be said, must also take responsibility for their half of this dynamic. Sometimes it's worth borrowing to boost an enterprise along—that is what good credit systems should really be all about. The energy of the bright shadow may also be able to be used skilfully, if *balanced* and *integrated* to serve the enduring health of both the individuals involved and of the system as a whole. So, I don't so much have a problem with how Ken and II generated the hyperbole around the *initial* launch of Integral. I was willing to entertain the idea that tipping this balance to such an extreme was timely and in service of an extremely good idea. But, I think this somehow became a general modus operandi and that there have been a few too many folks in and around II (and in fact more generally in the Integral scene) dipping into the same community credit, but without the same sort of justification or capacity to pay back. What seems like a much larger associated problem (again, I carry this perspective because of some of my previous experiences—particularly Mollison's hyping of permaculture and the sycophants that he attracted) was the lack of discrimination about the acceptance and use of the energy of the bright shadow. This too seems to have become a general MO within parts of the Integral community, some tapping this flow through an association with Ken, and some by emulating him as proclaimed master of a particular sub-kingdom of Integral. This is, of course, not true of everyone involved in II or with Ken or in Integral at large. It's just one of those orienting generalizations that helps us along the way.

If Ken was going to go booting people out of the temple, then perhaps it would have been better if he located folks engaged in these other, more insidious, forms of debasement—or empowered people who could. Because this did not happen, we lost our innocence and Integral Institute lost a big chunk of its credibility.

This, I think, is closer to the real source of our distrust of the big container.

If it is true that the bigger the emotional charge for, or against, something, the greater it is as an indicator of the amount of shadow at play, then we really have to examine the energy around how the Integral community feels about Ken and II at the moment, particularly in relation to both the period where we projected the bright shadow and the period where we have hung the darker one.

I think, also, it is precisely because Integral has had a first person focus on theory rather than a second person focus on conversation, meaning, values and culture that how *power* should be used in our community has gone undiscussed—at least in the more 'official' forums—and has often not been handled well. A discussion on power, whom should have it, how it is allocated, validated and substantiated, and how it gets used is another story and another conversation the Integral community needs to have sometime soon. I like to work on the basis that most people operate in good faith and that bad outcomes are generally the result of mistakes. If, though, we agree that something is a mistake, then any continued use of the sort of approach would constitute, in my books, an abuse of power.

Strong words, I know, but it is hard to see how we are going to get anywhere by apologising for the ongoing practice of that sort of thing. What I hope comes through here is that I'm attempting to offer authentic criticism. Part of doing that is pointing out it is actually ok to make mistakes (it's inevitable) that mistakes were in fact made, and that, for criticism to be of service, these mistakes should be examined. Partly, it is willing to be wrong, which I may be. And partly it is about being able to put things within a larger perspective. What we are hoping Integral can do is to make a real difference to how human beings relate to each other *en mass*. This has been the goal of every purportedly beneficent cultural movement since the dawn of time. *Progress has been slow*. If we make even a minor contribution, it will all be worth it. Deep down, though, many of us believe we have something that can do better than that. If so, this, in part at least, explains the very powerful energy we are working with, and, no doubt, a fair chunk of the energy behind our collective shadow dynamics related to Ken and II.

Community as Master

What I've come to now is that from a more dispassionate, more objective perspective what has gone down in the Integral world to date fits with patterns we have seen before and will most likely see again. Therefore, without denying the reality of the situation, we shouldn't be overly harsh on Ken or ourselves or anyone else—unless of course the aforementioned negativities are perpetuated. The real question is, can we step up as a community and make real improvements going forward? And if so, just how do we do that?

My feeling is that it's the Integral community at large that is emerging into mastery—**Community as Master**. Like I said, there are many, many good examples of Integral Theory being applied by individual practitioners and by groups on small and even medium scales. Here, it is doing pretty much what we thought it would do. There are also multiple examples of people who are taking Integral Theory further and making Integral Application better than anything we saw in the beginning. For instance Integral Coaching Canada has been a standout in both furthering Integral Theory and its application. (<https://www.integralcoachingcanada.com/>) Integral Without Borders is also doing great work (<http://www.integralwithoutborders.org/>). This is to name just a few examples. Now it's time to scale this activity up into bigger institutions, and through that success demonstrate we really do have the capacity to make a substantial and lasting contribution to human affairs. I think this will require that shift from a first person 'theoretical' orientation to a more 'cultural' second person orientation in the general design of the Integral enterprise.

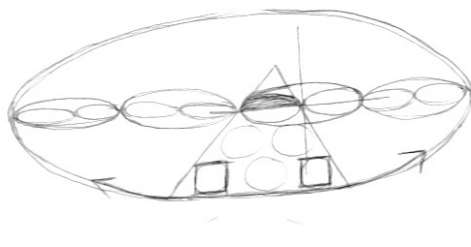


Holarchy

Click [here](#) to see a fuller description of the Holarchy Pattern

This leads to the Holarchy Pattern. The nested series of holons illustrated in this diagram signify a much more ecological pattern—systems within systems within systems. Hierarchy is implied here—some ovals encompass others—but it's subordinate

to the idea of ecology. An ecology is a system where there are many different niches at many different scales. It's an organising principle with more of a dynamic, co-creative, participatory structure. Ecologies are also necessarily a blooming buzzing network of signalling and *multi-directional* communications. The hierarchical nature of II is a direct contrast to the principle Pattern that I see at work in MI, which is the more ecologically orientated Holarchy Pattern. Keep in mind that the Holarchy Pattern prescribes the framework of the greater system. You will find the same thing with MetaIntegral. It is embedded in a conscious field that supports a particular kind of ecosystem with a particular purpose. To find a niche there you will need to identify with the consciousness of that purpose. MetaIntegral does not intend to be *the* big container only *a* big container, one that might serve as a template for others. If MI turns out to be a redwood forest and you are looking for more of a coastal wetland, then you have a template for growing *that* type of holarchy. The more good ones the better, I reckon.



Meta-type: Transcendent Holarchy

The composite Pattern above signifies the meta-type (pattern of organisation or principle of design) that results from the balancing of Hierarchy with Holarchy. Hierarchy is not eliminated, but *integrated* (transcended and included) within a more complex whole. And, Hierarchy is in no way bad here, it just needs to be *balanced* with Holoarchy to serve the situation we find ourselves in now, which is not the launch of a movement, but its growth and maturity.

In a way, I'm speaking to you as a kind of MetaIntegral guinea pig. Recently, Sean Esbjörn-Hargens coached me as a certified coach of Integral Coaching Canada (one of the aforementioned organizations working very effectively at the medium scale in Integral). He has also mentored me, through the publishing process. In this coaching, mentoring, and our further work together he encouraged and assisted me, along with my long time collaborator Kamya O'keeffe, in developing PatternDynamics as an Integral application. Sean also helped to deepen what I would call my integral embodiment—my lived experience as an Integral practitioner. This was during the time that Sean was developing the concept of MetaIntegral. My input was welcomed and, in part, incorporated. It's the two-way nature of my engagement with Sean and with the development of MI, more than anything else, which gives me the confidence to participate and to make such a deep commitment.

Dynamic Balance of the Feminine and the Masculine

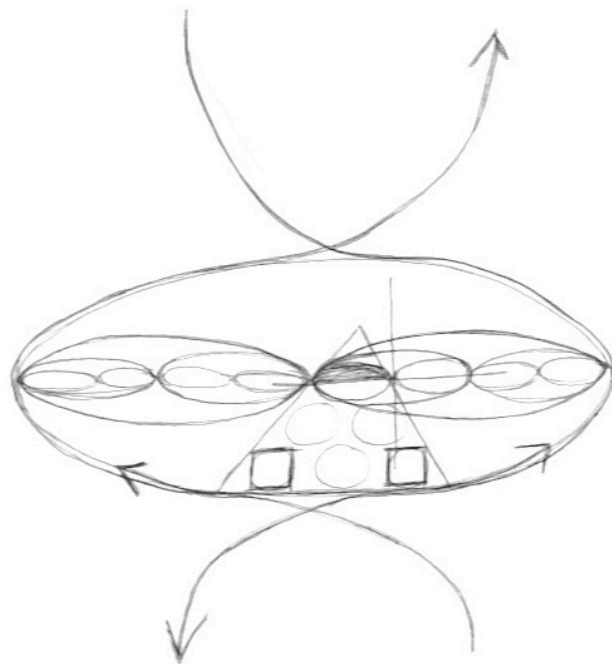
MI is a space orientated to embodiment and application, to living integrally as a practitioner and to creating effective applications of that embodiment. It is not a space for commentary, but it is a space for conversations, conversations like this one that serve, through a shift to a more second person orientation, to build the meaning,

values and the culture that support effective *embodiment and application*. In that way I feel like MI brings a more grounded, more functional, more supportive, more feminine balance to the design of our institutions. This relates to the descending arrow in the Masculine/Feminine Pattern below. The ascending arrow signifies the more agentic, more hierarchically driven, in many ways more exciting, but riskier dynamics that have dominated Integral to date. The masculine arrow is like the vertical branches of an olive tree: they shoot for the light and provide the energy for the tree, but they bear no fruit. The feminine arrow represents the lower more horizontal branches that carry less energy producing leaves but almost all of the fruit.



Click [here](#) to see a fuller description of the Masculine/Feminine Pattern

It's not the use of a more masculine or a more feminine principle that matters so much as the capacity to balance and integrate these polarities as a method of 'shifting' that enables generative health for a particular, and of course constantly shifting, context. Everybody and everything needs a dynamic balance between generating energy and using it creatively, agency and communion, Hierarchy and Holarchy. I think MI as a proposition within Integral needs to, and does, enable a shift to a more feminine orientation at this time, and I think it's what we need. But, I also think MI embodies the capacity to shift between these perspectives as needed, which is signified by the intertwining of the masculine and feminine arrows in the Pattern diagram itself.



Meta-type: Balancing Polarity through Holarchy

The composite Pattern above represents a meta-type that I've called Balancing Polarity through Holarchy. The addition of the descending and ascending Masculine/Feminine Pattern arrows around the Holoarchy Pattern serves as a symbol for one of the central design principles informing MetaIntegral as an Institution—the capacity to balance and integrate masculine and feminine principles through the embodiment of a transcendent holarchy.

Source

The last Pattern I want to include is Source.



Click [here](#) to see a fuller description of the Source Pattern

Source signifies the *consciousness awareness* that holds the origin and evolution of a system's *identity and purpose*. You can see the Source Pattern in the composite above. It is the most central and foundational of all the Patterns. It is the same core symbol as the Holon Pattern, and it shares the part/whole/inside/outside meaning as an aspect of its own. The focus, though, is on the *consciousness* that brings awareness to the *unique nature* of a particular holon or system. Without an awareness of a system's original identity and purpose; and, without an ability to balance changes to that identity and purpose in a way that transcends but includes that origin, it will be compromised at its core. Source, in this instance, represents the consciousness required to integrate Ken, II and the history of Integral to date, into the evolution of the collective meaning making of our community. If we can do this in a balanced way, it will enable the self-organising awareness of the individuals in the community around that identity and purpose. If not, we will have related shadows and blockages.

Ken will remain the origin of the Integral community's identity, but he is no longer the main force in its evolution. That is up to us. Inevitably there will be a grieving process associated with the loss of Ken as the main source of our identity and the place where we hang our hopes, dreams, higher and lower selves. This grief must also carry the resultant loss of our innocence as a community. I think this is a big part of the feeling I'm describing in the field at the moment—to transcend is, in part, to separate—to experience a loss. This needs to be acknowledged and we must work through this grief without haste and in a way that allows the fullness of the process to demonstrate itself. A key to this will be to raise the consciousness required to acknowledge our origin so our relationship to it may be balanced, integrated and included in the evolving identity and purpose that ultimately makes Integral meaningful to us. This is the Source that serves us all. In this way, may we find generative health in the emergence of Community as Master.

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“From Deep Green to Second Tier: Sustainability at the Threshold”

An Integral Sustainability Case Study of Permaforest Trust

Published as part of the proceedings of the First Integral Ecology and Sustainability Seminar, Westminster CO, 2004.

“Developing an Integral Sustainability Pattern Language”

Published in the *Journal of Integral Theory and Practice*, Volume 5 Issue 1: Spring
2010

Title:

PatternDynamics™: Creating Cultures of Sustainability

Abstract:

This paper introduces PatternDynamics (PD)- an Integral Sustainability pattern language. PD is a tool for enacting *cultures of sustainability* through communicating “*Nature’s*” design principles. We now have an abundance of sustainability technologies and strategies relating to the “exterior” world—Lower-Right quadrant. The next step in sustainability lies in facilitating a critical mass of collective “interior” understanding and meaning—Lower-Left quadrant. Only by making sustainability *culturally meaningful* on a global basis will we enable the level of diversified collaboration necessary for successfully scaling-up technical and strategic solutions. Building and coordinating cultures of sustainability through *meaning-making*, in all forms and at all levels of human organization is now a key strategy. To develop meaning PD identifies a set of *types* from the enduring *dynamic patterns* of organization found in natural systems and represents them as diagrams— PD “patterns”— transforming them into *principles* of sustainability. As principles they can be learned, communicated, combined and discussed, facilitating mutual understanding and coordinated action. This article forms a foundation introduction to PatternDynamics as an Integral technology. It outlines PD as a sustainability education initiative, its history, position within AQAL Integral Theory, methodology, theory, contribution to Integral Pluralism, and how people may become involved in its community of practice and work towards accreditation for professional use.

“The one intelligible theory of the universe is that of objective idealism, that matter is effete mind, inveterate habits becoming physical laws.”

—C.S. Peirce (1958)

“Any sufficiently advanced technology is indistinguishable from magic”

—Arthur C. Clarke (1973)

Introduction

My purpose in writing this paper is to introduce PatternDynamics™ (PD)—an Integral Sustainability pattern language. I developed PD through my experiences in applying Integral Theory in my work in sustainable design and during a ten-year experiment in sustainable living and education. That experiment, undertaken on behalf of Permaforest Trust, was the creation, participation in and management of a residential sustainability education centre in the humid sub tropics of eastern Australia—what we often referred to as an “educational community for sustainability.” In recounting the story of this experiment, my work in sustainability, and the development of PD, I hope to make it *meaningful* to you, so as to create a “culture” where *you* and *I* become a “we”; and where *we*, in forming a whole from our parts in this way, gain a radical new capacity to collaborate in facilitating sustainability. This approach is the essence of PD: a language that communicates meaning in ways that enact and coordinate cultures, enabling wider, more comprehensive collaborations in sustainability.

This is one of the core propositions of PD: that all of our technologies, all of our design strategies, all of our economic initiatives—all of the focus in sustainability on the Lower-Right quadrant—will not be effective unless they are supported by *cultures* of sustainability—cultures generated through a focus on the Lower-Left quadrant.

An Integral perspective makes it clear that planetary sustainability must be supported by multiple cultures and divergent worldviews. What is the status of sustainability among different cultures? How have cultures of sustainability been formed? Are they inclusive enough? Is there cultural indifference or opposition to sustainability? If the 21st century is to be characterized by the challenges of sustaining collective human health and development within the limits of the biosphere, are we maximizing our efforts? Do we have the capacity to generate and integrate cultures of sustainability on a global basis? If not, what are the Integral strategies and tools that will help us most?

Another core proposition of PD is that “types”, as an element in Integral Theory, have

unique properties that make them especially well suited to enacting and coordinating cultures of sustainability. We can think of *types*, in this instance, as recurrent and enduring general patterns of organization, or what I refer to as *dynamic patterns*. PD introduces the perspective that *types* of organization that have endured for hundreds of millions of years in physical and natural systems—what could be thought of as Nature’s deep *dynamic patterns* of design—may be transformed into principles of sustainability. In fact the deepest of these “Kosmic habits” can be thought of as *meta-types*, an idea that I will develop into a theory in the conclusion.

PD works in sustainability through a set of “pattern” diagrams—the PatternDynamics™ chart (See Appendix 1)—where each of the “pattern” symbols signifies a principle of sustainability. The unique contribution of PD is not that it can communicate principles of sustainability, nor that it can facilitate cultures of sustainability through this process—I think there are a multitude of ways of doing this already in existence. The unique offering of PD is its proposed capacity for supporting the collaborative enactment of sustainability *at all levels and locations* across the depth and span of society, and in so doing contribute, through an Integral practice, to the requirement for a truly *planetary* culture of sustainability.

From an Integral perspective sustainability takes on new meaning, or rather it integrates previous meanings and transcends them to emerge as wider and deeper sets of perspectives on what it is to endure as a species. PD patterns act as an interface bridging the world of dynamically organized objective relations called *nature* (LR) with the world of dynamically organized subjective relations termed *culture* (LL). The integrating power of a “language of patterns” imparts wider meaning—sustainability at any level becomes a *semiotic process* integrating principles of “culture” and patterns of “nature”. Languaging through patterns brings forth an inherent awareness at work in our world: a living presence of communication, relationship, memory, intention and dynamic order built into the very *fabric* of the Kosmos. Enacting

this perspective stories a Kosmology capable of coordinating planetary action. As members of a deeply sentient and self-ordering Kosmos we have the capacity to collectively bringing forth its patterns and principles—however it is we understand them—to facilitate the design of an enduring and evolving planetary society.

I will speculate here that some of the most powerful technologies of the 21st century will not be in the production of things, the transformation of energy sources or the development of information architectures. The most powerful technologies of the 21st century may well be those capable of integrating the widest sets of perspectives. To explain why I think of PatternDynamics™, first and foremost, as an *Integral technology*, and why I think of it as an attempt at a technology of this ilk, will take up the rest of this paper. It starts with the story of the development of PD itself.

Permaculture

My main vehicle for working as a designer of sustainable systems—mostly in forestry, agriculture, and human settlement—and as a sustainability educator has been permaculture. Permaculture is a postmodern sustainability discipline, and true to its postmodern orientation, it has many applications, and it may be viewed from many different perspectives. It is often described as a system of sustainable human settlement design. The word “permaculture” was originally a contraction of the words “permanent” and “agriculture”: agriculture being the most fundamental aspect of society that must be made enduring if we are to sustain human populations. (Mollison and Holmgren 1978) With its origins in the design of sustainable agricultural systems, it is often mistakenly thought of as only a form of organic “garden agriculture.” Permaculture evolved rapidly beyond its origins in agriculture to encompass the complete design of human settlements, where it came to be thought of as a contraction of “permanent” and “culture”. Co-founder Bill Mollison’s (1998) publication *Permaculture: A Designer’s Manual* made this move

explicit. More recently, with the publication of the other co-founder David Holmgren's (2002) latest book, *Permaculture Principles and Pathways Beyond Sustainability*, it has shifted again to encompass the notion of permaculture design as a way of applying general principles of sustainability, derived from nature, to virtually all aspects of the economy and society.

After working and experimenting with permaculture for over 15 years now, I tend to think of it differently again. For me permaculture is one of a number of postmodern design approaches that has looked to the systems of nature as a method of locating the principles for designing human systems. Permaculture also has a three-fold set of ethics embedded deeply within its foundations: "care of earth, care of people, and dispersal of surplus time, money, and materials towards those ends." (Mollison and Slay 1991) In my observation, it is the *meaning* of the ethics and principles that creates the bonding power forming the *culture* of permaculture. The cultural bonding power of *meaning* (LL), more than any other factor, has allowed permaculture's rapid global spread, to the point where it has become one of the most influential initiatives in applied ecology. The nascent understanding that there is a powerful relationship between nature and culture at the heart of sustainability and that this may be illuminated through the relationship between ecological *patterns* and cultural *principles* is for me, now, the most important aspect of what I have learned from practicing permaculture.

Permaculture was my portal to environmental awareness. Before encountering it I had worked for 3 summers in Canada as a tree planter to pay off my university debts. This was the start of my now 20 yearlong career in what I like to think of as the more sustainable end of forestry practice. Living in the bush and working daily in the cut blocks gave me an awareness of environmental issues, but it wasn't until I moved to Australia and did a 10 day foundation course in permaculture design that I became fully committed to working in sustainability. Bill Mollison himself taught that course.

Through a process of story telling, vision, ecological understanding, humor, anger, genius and outright charisma, I became powerfully sensitized to the meaning of ecological sustainability; and through that process, I became fully indoctrinated into the permaculture worldview.

In 1998, after training for a little less than two years at Mollison's Permaculture Institute at Tyalgum in northern New South Wales, I initiated a permaculture project of my own—essentially to trial and test permaculture theory by putting it into practice. I founded Permaforest Trust, a not-for-profit sustainability education organization, and set out to establish a rural, permaculture training centre, also in northern New South Wales. By this time I was working as a forestry and silviculture contractor, and I directed surplus finances from this business to provide funds for the project.

From Sensitivity to Integration

Looking back, my journey in permaculture has been the shift from *sensitivity* to *integration*. When I entered the world of permaculture, I entered through the emergence of a deep sensitivity to the plight of the planet and its role in sustaining human society. In hindsight and with the benefit of an Integral perspective, I recognize this as a hallmark of entering a green altitude of consciousness. This article is written for readers versed in Integral Theory, and therefore I won't describe the elements of an Integral approach necessary for interpreting parts of this article: including, *quadrants*, *levels* (altitude), *lines*, *states*, and *types*. Readers interested in explanations of these elements and for an introduction to Integral Post-Metaphysics—also essential for interpreting parts of this article—should consult Ken Wilber's (2006) book *Integral Spirituality*.

The roughly ten-year period that I directed the sustainability centre on behalf of Permaforest Trust (while also working as a permaculture designer and forestry

contractor) consisted of the slow and often difficult process of transcending the limitations of my green sensitivity to a more Integral orientation. Permaforest Trust, as the sustainability education centre become known, was an attempt to create a temporary community of permaculture students, facilitators, staff, guests and volunteers demonstrating environmentally sustainable ways of living. The centre, established on a vacant rural property, grew slowly from a handful of participants in the early days to an average daily population of 20-25 people. We built infrastructure and developed residential Certificate 4 and Diploma programs in Accredited Permaculture Training. The centre was designed as a living example of sustainability where students could reside temporarily in a small permaculture community and participate daily in growing, storing and preparing their own food, operating alternative energy systems, harvesting water, integrating their wastes back into the environment and restoring the landscape. We did manage to live in a way that dramatically reduced the environmental footprints of the participants, but ironically, and in the final analysis, permaculture interpreted through a primarily green worldview was not sustainable.

The principal reason it was not sustainable (we concluded the project in 2008) was *not* because our permaculture strategies for designing productive food, primary commodity and energy systems were not viable and ecologically sound. Our earth care—Lower-Right quadrant—strategies worked quite well. The challenges were primarily cultural—Lower-Left quadrant—dynamics. We started with a deeply and almost exclusively green culture. Initially, being primarily oriented in green myself, I could not make this distinction, but the limitations of a limited perspective, so to speak, became clear soon enough. I've written about this dynamic and how an Integral perspective helped in overcoming these challenges at length in two previous works (Winton 2005, Winton 2010). Here I will only recount the key components for illuminating the meaning and development of PatternDynamics™.

What became obvious very quickly was that a postmodern, green orientation was not receptive to useful aspects of other altitudes. Very generally and in brief, we suffered from a lack of *orange* altitude economic and productive capacity and *amber* altitude social structure. This was crippling. The realities of living on the land actually demand a high level of manual labor, and the center itself required a healthy income to operate. Productive manual labor and economic performance were not highly regarded—in fact they were often discouraged. In general, our participants prioritized interpersonal dialogue and process, emotional healing, personal development and recreation—life choices that, as a rule, took priority over personal and economic performance. Also, sharing energy and resources to lower our environmental impact required high levels of community commitment and coordination. Despite a general ethos of “community” among our participants, sacrificing personal freedom and lifestyle choices in order to conform to our community structures proved challenging.

In my professional life as a contractor and designer, I often had the opposite experience: instead of being embedded in an exclusive worldview, I was confronted with multiple worldviews. On one particularly memorable reforestation project, as the forestry and silvicultural contractor, I was engaged as the only person with a green orientation; my client was a large (orange) investment business, represented on site by their operations manager; the landowner was a traditional (amber) farmer; and the people I engaged to plant the trees were all from a local aboriginal community (magenta/amber). In this instance multiple worldviews were present in a project with a sustainability orientation (provision of renewable resources), but they were poorly integrated. While the job got done, it was not done in a way that could be sustained. There was a clear and palpable rejection of the fundamental ways-of-being-in-the-world of each worldview by the others.

What became very clear to me from these experiences was that while both

Permaforest Trust and the plantation forestry projects were based on potentially viable “sustainable” alternatives, neither could be sustained. It wasn’t their Lower-Right quadrant activities, in-and-of-themselves, that were unsustainable—both could have technically persisted in producing essential commodities without undermining the health of the biosphere. They were unsustainable because culturally—in the Lower-Left quadrant—they were not balanced and integrated. In the case of Permaforest Trust’s education centre, it was mainly because the management demands of *integrating* the green culture of the participants into a project that required other cultural values and capacities, could not sustain managers—inevitably management burnt out trying. In the case of the plantation forestry projects they suffered from a lack of cultural *balance*: their business models (which have, for the most part, now failed) were based on cultures of extreme profit taking. Also, they needlessly antagonized traditional farming cultures in the localities where they established the plantations, which weakened their political support.

I found myself becoming acutely aware of the importance of balancing and integrating cultural perspectives in facilitating sustainability. Ken Wilber’s (1995) Integral framework, first encountered in his book, *Sex Ecology and Spirituality*, was invaluable in helping me transcend my green perspective and in making sense of my situation. I realized that exclusive perspectives, like green environmentalism, could no more reject orange industry or amber social structures any more than I could reject my lungs or my bones and hope to sustain my body. Correlatively, multiple worldviews could not remain fractured and unbalanced either.

I noticed that each altitude, in fact, had its own interpretation of sustainability: for magenta it was sustaining ancestral connection to “country”; for amber it was sustaining community structure; for orange it was sustaining productivity; and for green it was sustaining nature. It became clear that all altitudes contributed essential aspects of sustainability. For me, from an Integral perspective, it also became obvious

that if Lower-Right quadrant technical and strategic approaches depended on cultural support, then an Integral approach had to include finding ways to coordinate the cultures of sustainability across the depth and span of society.

Types

Having developed an Integral orientation, I found that my views on the validity of things like healthy orange and amber values within sustainability were seen by my green peers and students as somewhat—to say the least—unconventional. Without realizing it at first, I developed a strategy of relying on *types* as an aspect of Integral Theory to help me explain my new perspectives. Because types can be seen as general patterns of organization, or in Integral terms as “horizontal styles available to any developmental level within the quadrants” (Rentschler, 2006, p.35), they became a useful way of explaining an important aspect of sustainability contributed by one altitude to someone in another. They gave me a means of focusing on a system’s dynamic patterns (types) as an aspect of sustainability rather than its location (quadrant + level). It was very helpful to focus on *types* of systems patterns that could be “language’d” to fit the altitude I was speaking to, as opposed to focusing on the level of culture (altitude) it was perceived to originate in, which was often rejected out of hand.

It is the *horizontal* aspect of types and their role in structuring the *span* of the Kosmos that makes them useful in this regard. I will develop this idea further in concluding this paper and after an explanation of the development of PD. Space does not permit a further exploration of the other qualities of types in Integral Theory here—we will cover only the essential aspects relative to PD. Also, we will not cover the potential pitfall of engaging in this strategy, except to note, as per Rodger Walsh’s (2008) presentation at the first Integral Theory Conference, that they are real and that they must be considered. I have written previously in depth about

the properties of types, their usefulness in this capacity, and their development as pattern languages in an article (Winton 2010) for the *Journal of Integral Theory and Practice* entitled: “Developing an Integral Sustainability Pattern Language”.

At first when I used this strategy it was almost always me, at an Integral altitude, “languageing” an important contribution to sustainability from amber or orange altitude to someone at a green altitude. For instance I would pick a *type* (pattern) of organization critical for sustaining an ecosystem that was helpful in supporting my inclusion of an amber or orange perspective. In this case, let's say I chose to use the pattern of the *flow* (an actual pattern from the PD chart) of energy through an ecosystem. Then, for instance at Permaforest Trust (green), I explained that the need for economic performance (orange) was necessary to maintain a nurturing *flow* of resources into our community system; so that we could sustain our training program; so that graduates could contribute to creating a sustainable world. Later I realized that this general approach allowed me to integrate perspectives not only *from orange to green*, but *from any altitude to any altitude*—providing I could find a pattern (type) to facilitate the translation. I also had some success in teaching people oriented at various altitudes to use the patterns in a similar way. Eventually, I collected about 50 or so of these natural patterns, mostly through observations of ecosystem dynamics and through studies in systems disciplines. I found myself using this set of types—what I thought of as a Lower-Right typology—over and over again as reliable translators.

PatternDynamics™

After a time, I started to formalize this method by cataloguing the types of systems patterns that worked most effectively. Then I created a “pattern diagram”, known as a “pattern” to represent the corresponding principle at work in sustaining a system. Just to clarify, when I'm talking about the structural pattern of the actual Lower-

Right system itself (referent), I refer to it as a *dynamic pattern*, *natural pattern* or *pattern of organization*; when I'm talking about the pattern diagram (signifier), I refer to it as a *pattern*; and when I'm talking about the meaning (signified) enacted by the pattern, I refer to it as *a principle*. This takes us back to the patterns and principles of sustainability used in permaculture. The addition here is the creation of *asemiotic process*(pattern language) via a *symbolic "pattern" diagram* that explicitly connects a dynamic pattern of Lower-Right systemsfunction with a principle of sustainability,*enacting* meaning necessary for the formation of cultures of sustainability. As we will see, *semiotics* and *enactment* play central roles in the methodology and in developing the underpinning theory of PD.

The next step in creating PD was to assemble my set of patterns, like *flow* used in the example above, into groups based on general similarity. I chose 49, which I called second-tier patterns, and sorted them into seven like groups called Rhythm, Polarity, Structure, Exchange, Creativity, Dynamics and Source, which I called first-tier patterns. I saw the second-tier patterns in each group as *aspects*(perspectives) of their respective first-tier patterns. For instance, *flow* is one of seven aspects, or different perspectives one could take, of the pattern Exchange. In the chart, the seven second-tier patterns related to each first-tier pattern, form a column under that first-tier pattern. The color-coding(shading if printed in mono) on the PD chart (See Appendix 1) also makes it clear which column of second-tier patterns are aspects of which first-tier patterns. Lastly, I realized that the six first-tier patterns (Rhythm, Polarity, Structure, Exchange, Creativity and Dynamics) were aspects (perspectives) of Source. Source, then, is the deepest most general pattern of them all. If the first-tier patterns were, in effect, meta-patterns of the second-tier patterns, then Source, as a meta-pattern to the first-tier patterns, is a meta-meta-pattern of the second-tier patterns. Source, as a primordial meta-pattern or meta-type, could be seen as the most fundamental organizing principle of the Kosmos—simply that holons (subject/object/

part/wholes) self-organize and evolve.

With some minor adjustments and some minor revision the second-tier patterns laid out structurally into a matrix chart created by the first-tier patterns (See Appendix 1). That is, each second-tier pattern appears to be made up of the qualities of the two first tier-patterns that intersect at that location on the matrix. This, along with its name and the nature of the pattern diagram itself, give the user indicators as to the meaning of that particular pattern. As an example, the second-tier pattern, *swing*, lies at the intersection of Rhythm and Polarity, indicating, along with the diagram and its name, that *swing* signifies the principle that all systems, in sustaining their function, will attempt to iterate (swing) between opposite states over time. *Flow*, as another example, is the intersection of Exchange and Source, indicating that *flow* is the most fundamental aspect of any exchange dynamic in a system- no flow, no exchange. That, in summary, is how the core intellectual property of PatternDynamics™, an Integral technology, was created.

Organizing the patterns in this fashion made it obvious that the ones that worked most effectively were actually meta-patterns or *meta-types*, and that it was their presence as deep systems organizing patterns that made them recognizable by people at any altitude. Each altitude had its own specific ways of “seeing” these ancient and ever present dynamic patterns just as each altitude had its own unique ways of “seeing” sustainability. The critical point here, from the perspective of meta-types, is that although they are interpreted in unique ways at unique altitudes, *meta-types may be signified such that they enact meta-meaning*. Meta-meaning that has the power to assemble unique, but partial, perspectives into wider, integrated wholes. The deeper and more encompassing the meta-type is, the wider the meta-meaning, the wider the culture, the wider the collaboration. I see the research of identifying the interpretations of meta-types at various altitudes and how these have evolved and are evolving as a crucial part of the work that should be undertaken by aPD

community of practice. The idea of meta-types, their integrating function and their use in enacting large-scale collaboration will be developed as a *theory of meta-types* in the concluding section of this paper.

Methodology

Learning PD is relatively simple. One discusses the patterns with others in an attempt to spot them in different kinds of systems, and in this way—through communicating nature’s design principles—learn their meaning. At one level this may be thought of as basic training in “systems thinking”, designed to be adaptable across organizations in all domains and at all levels. This is the application of PD as an Integral Sustainability education initiative. The methodology of PD is also simple and it has two main applications: one for bringing sustainability to existing systems and on for the sustainable design of new systems. In the first application, once the user learns to spot the patterns, they then identify the ones that are dysfunctional in a given system. The symptoms indicating this are usually at some point obvious. For instance, in the system of your body, if the *flow* of blood is impeded in your arteries, there will be a range of symptoms signaling this problem as the condition worsens. The same would be true if the cash *flow* in a business was impeded, or the *flow* of resources was restricted to an industry. The interesting and important aspect of the PD method is that, if you are otherwise reasonably healthy, we probably don’t need to worry about the other patterns—they are balanced and integrated and therefore they are healthy and enduring. Once dysfunctional patterns are identified, an attempt is made to balance them where they are unbalanced and to integrate them into the system where they are absent. In this instance, you might undertake practices to increase (balance) the low *flow* of blood in your arteries, perhaps by revising your diet or exercising or taking medication. Undertaking these injunctions should make your body more enduring or “sustainable”.

The second application of the methodology is to discussions, negotiations and collaborations about the design of human systems, from cities, to industries, agricultures, financial systems and organizations—in fact, any LR system. A proposed design may be checked by all of the stakeholders by scanning and evaluating its potential effects; then each stakeholder may argue the merits of their perspectives based on balancing and integrating the design for the health of the whole of biosphere and society. In this instance PD has the potential to directly facilitate mass collaboration as a design process in sustainability. Instead of cultural fragmentation in sustainability, PD provides a way to bring divergent perspectives to the table and to argue their merits based on a common language. This does not guarantee that everyone will have their perspective included, but it does ensure that they can be heard. PD, in this sense, is about facilitating more comprehensive conversations. I think this is a big step up from the situation we find ourselves in now, where cultures are fractured over the issue of sustainability and therefore mass collaboration, at the required scales, is not yet a reality.

With reference to the AQAL framework, we are identifying deep patterns of organization (meta-types) from “systems” enacted through the Lower-Right quadrant—ecosystems, economic systems: in fact any system, of any kind, at any level enacted with a Zone 8 methodology. I believe it is actually possible to identify these meta-types in the structures of any of the evenly numbered Zones at any level—in this case I refer to them as “*Nature’s*” design principles or “Kosmic habits”—but, for general use, it is clearer and simpler if we locate them in readily observable Lower Right “natural” systems, like ecosystems and social systems.

The application of PD methodology for engendering enduring health (sustainability) in the Lower Right (in any *system*), at any level, is simply to *scan, evaluate, balance* and *integrate*. In that way, PD could be thought of, in part, as a kind of Traditional Chinese Medicine approach to sustainability—find the pathology, evaluate its cause,

then balance and integrate the system for health. In this way it may also be used as a guide to the design of sustainable systems. PD claims that it is working with a method that is able to do these things in the context of sustainability (the enduring health of humanity)—*at any scale*. The capacity of PD for engendering systemic health may be recognizable at smaller scales—like in a community or a business—but at larger scales, and particularly in the Lower-Left quadrant where it becomes part of culture itself, the *mechanisms* will be less obvious. If this is the case, then, these mechanisms—as with the effects of other Integral methodologies—will either be denied or seen as a sort of magic.

In summary, from an Integral perspective, PD works primarily at the human level of development with the dynamics between two quadrants (LR and LL) and a set of meta-types (PD) to facilitate mass collaboration in the design and creation of a sustainable world. In this way the effectiveness of PD is based on the theory that meta-types generate meta-principles that generate meta-cultures that generate meta-collaboration for assisting in the integrated collaborative design of a planetary society.

A Theory of Meta-Types

Or, rather, that is my *assertion*. I will conclude this paper with an attempt to reconcile a theory of meta-types with the specification in Integral Post Meta-Physics that “the meaning of a statement is the injunction of its enactment.” (Wilber 2006, p.268)

Firstly, meta-types as Integral objects (ontology), can only be fully recognized through Turquoise cognition (epistemology) or higher. Secondly, we must specify the injunctions (methodology) required for the enactment of the mechanisms underpinning such a theory. In order to do that we will need to include elements of the historical works of philosopher Charles Saunders Peirce and aspects of the latest work by Integral Theorist Sean Esbjörn-Hargens.

Semiotic Enactment

I propose that the nature of the mechanism underpinning a theory of meta-types, is essentially semiotic: where semiotic denotes an ongoing “action inquiry”, a “signalling” between holons—a *sign process* of communication, *at any level*, that allows for the relational enactment of parts by parts so as to form wholes. We may signify *semiotic enactment* as the ongoing *act* of “bringing-into-relationship-so-as-to-bring-into-being”. No signalling, no relationship, no enactment, no wholes (no holons/social holons). Semiotic enactment relies not only on the perspectives of parts and wholes, but also on the subjectivity of objects. Signs and signalling (semiotic) relate to the subjective aspects of holons. As per C.S. Peirce’s (1958) concept of semiotic, a sign relation is triadic in nature and must include a “representamen” (signifier), an “object” (referent) and an “interpretant” (that which enacts a signified)—a mind-like quality (sentient capacity available at all levels of being) capable of subjectively “interpreting” a signal, so as to “*enact*” a relationship, so as to form a whole. This quality of “interpretation” in semiotic enactment, with regard to the perspectives I’m illuminating here, should, even at the most basic levels of matter, also include other aspects of sentience, including intentionality, memory, discrimination (the ability to make distinctions) and teleology (the ability to impart direction on material processes).

Semiotic enactment must also include the perspective that it is an iterative *process*. As well as being essentially enactive, semiotic is also inherently dynamic—it is an iterative process facilitating patterns of dynamic organization. Semiotic enactment signifies the moment-to-moment dynamically evolving embodiment brought forth through an Integral perspective. As Peirce (1958) has pointed out, each interpretant “determines” a new representamen (signifier) that goes on to be interpreted (signified) forming a further representamen (signifier) which goes on to be interpreted (signified) in a cascading developmental (evolving) process of the bringing-into-being (of the object/holon) through bringing-into-communicative-

relationship of its signalling parts. Semiotic enactment, as the *process* of evolving integrative patterns of communication bringing forth holons, may look different in each of the domains of matter (geosemiotics), body (biosemiotics), mind (semiotics) and spirit (theosemiotics) but the pattern is the same—I will signify the common pattern of semiotic enactment underlying each of these levels as *Kosmosemiosis*.

Another way of looking at all this is that the universe is composed of sentient beings at all levels— from atoms to molecules to cells, to... all the way up and all the way down. All of which are holons (subject/object/part/wholes) in multitudes of semiotic enactive relationships of varying degrees of intensity with other holons in an unimaginably complex, overlapping, inter-enacting, pattern oriented, evolving meshwork's of meshwork's we call the Kosmos. If that is the case, then we may consider any holon as constituting a distributed primordial organizational “intelligence” that participates in evolutionary semiotic enactment, creating more and more complex and concentrated sentient forms through time. This “intelligence” is carried and signalled at all levels of enactment. This approach explains why successful “patterns” of enactment are used again and again— they are successful, so they are copied, and they are able to be copied because the dynamic patterns of enactment (the forms of holons) are being continuously signalled in a vast field of dynamic sentient embodiment. The older the patterns of semiotic, the more deeply entrenched, stable and encompassing are their *types* of form: the deepest, most encompassing, most stable patterns of semiotic enactment are what I am signifying as meta-types. Evolutionary *semiotic enactment*, then, is the central mechanism underpinning a theory of meta-types.

Integral Pluralism

Sean Esbjörn-Hargens (2010) in a recent article for the *Journal of Integral Theory and Practice* entitled “An Ontology of Climate Change” introduces Integral Pluralism and

Integral Enactment Theory. In his words: “Integral Pluralism specifically includes: *Integral Epistemological Pluralism* (IEP), *Integral Methodological Pluralism* (IMP) and *Integral Ontological Pluralism* (IOP). Integral Pluralism forms the basis for what I am calling *Integral Enactment Theory*.” (Esbjorn-Hargens, 2010, p. 146) Integral Enactment Theory brings forth the requirement in Integral Post-Metaphysics for specifying the triadic relationship of subject-method-object (epistemology-methodology-ontology) in enactment—where enactment is a claim that something exists. Integral Enactment Theory is represented in Figure 1.

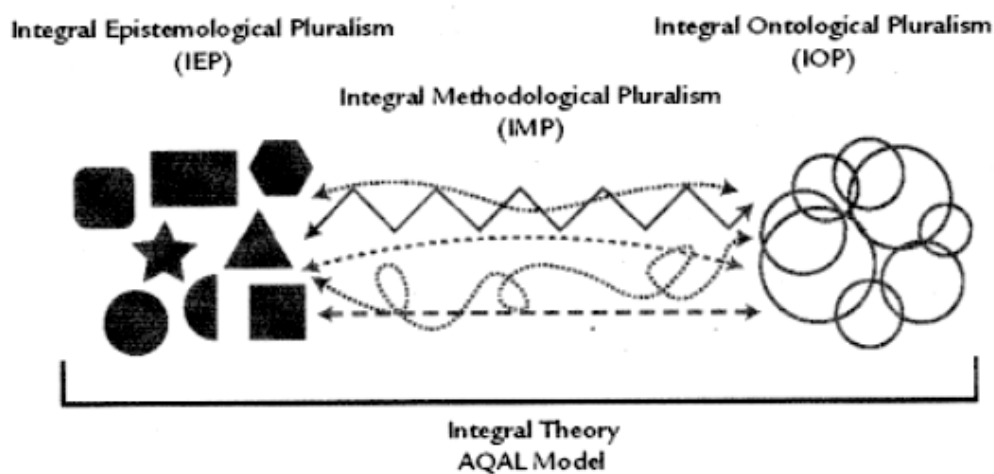


Figure 1 Integral Enactment Theory (from Esbjörn-Hargens 2010)

Notice how the arrows in Figure 1 representing multiple methodologies point both ways, indicating a “double hermeneutic”. A double hermeneutic signifies that not only do subjects enact objects, but that objects may change as a result of that activity. In that case objects must not be only objects, they must also have a subjective aspect if they are “aware” of being enacted and then change as a result. If this is true, and if it is true that any “thing” enacted is a holon with subjective and objective (as well as part and whole) dimensions then which holon is the subject and which is the object is a matter of the perspective one takes on the direction of the hermeneutic. Who is interpreting who, or indeed, what is interpreting what, is a matter of the direction of the enactment. Lets call this “enactive direction”. From an AQUAL Integral

perspective any enactment is a methodology (injunction) between one holon(subject/object/part/whole) and another holon (subject/object/part/whole). From here it is a short step to move from the triadic relation of Esbjörn-Hargen's Integral Enactment Theory to the triadic relation of Peirce's Semiotic Theory. I propose that Integral enactment has a strong semiotic dimension—that, in fact, Integral enactment is, with a small shift in perspective, Semiotic enactment. I will illustrate this point with a series of diagrams, but before we look to them, I will introduce one more concept necessary to complete an outline of a theory of meta-types.

Kosmic Positioning System

I'm championing types generally and meta-types in particular because I think that they are key, under enacted elements in Integral Theory, and that through a fuller illumination we may move to compliment AQAL Location with AQAL Enactment. In the concluding section of his article, Esbjörn-Hargens (2010, p.164) proposes a *Kosmic positioning system*, which is subtly different to Kosmic address. An address implies a static placement. A positioning system implies a way, not only to locate position, but to track dynamic patterns of unfolding from that position. In this way holons may be tracked within the AQAL world-space through "location" (depth) *and* through "enactive meta-type" or "dynamic pattern" (span)—*address* and *enactment*. A useful analogy here is that of position and trajectory within a Cartesian world-space. Having only the position of an object within an x and y coordinate system is fine, but it is greatly complimented and much more useful if its trajectory is also known. From a slightly different perspective, this approach could also be seen as emphasizing the practice of bringing *health* through meta-types (a focus on span) as consort to the practice of recognizing evolution through location (a focus on depth) in Integral Theory and Practice. I will end with a series of diagrams and a short conclusion enacting meta-types as compliments to the primordial perspectives signified by the AQAL quadrants.

Figure 2 illustrates “Integral Enactment” in a simplified version of Esbjörn-Hargens diagram in Figure 1, which shows a more comprehensive diagram of “Integral Enactment Theory”.

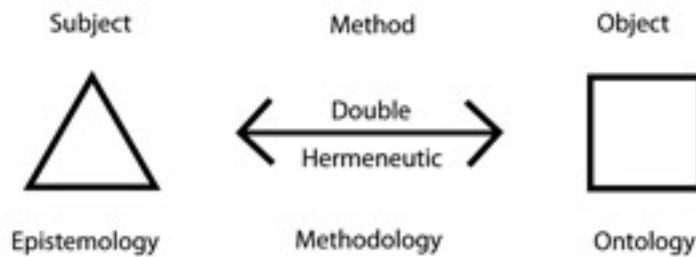


Figure 2 Diagram showing “double hermeneutic” in Integral Enactment

Figure 3 below shows how we move from Integral enactment to semiotic enactment. It indicates an iterative quality with multiple tracings of lines representing the ongoing and evolving semiotic process between parts that enacts those parts as a whole. Notice how the *double hermeneutic* of Figure 2 becomes the *semiotic* “point” illustrated in Figure 3. Also, note how the subject and object shapes in Figure 2 both become “subject/objects” embedded in the joined rounded shapes of the infinity type symbol of Figure 3. Interestingly, the diagram in figure 3 also looks like a simplified version of some phase space diagrams used to demonstrate the nature of *attractors* in Chaos Theory.

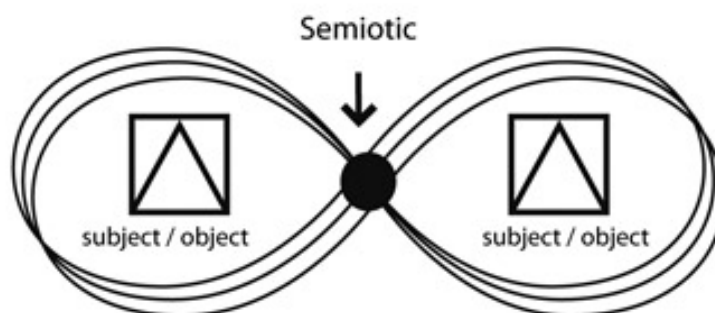


Figure 3 Diagram illustrating Semiotic Enactment

By drawing an encompassing oval around the “parts” shown in Figure 3, Figure 4 below illustrates meta-types as enacted patterns of semiotic process. I think of this, in its most primordial form, as signifying the original meta-type or dynamic pattern of the Kosmos. I call it “Source”. Source is simply the meta-pattern representing the fact that everything in the Kosmos exhibits part/whole/subject/object perspectives and semiotic/enactment processes. Another way of saying this is that the first and deepest organizing principle at work in the Kosmos is that the Kosmos self-organizes and evolves.

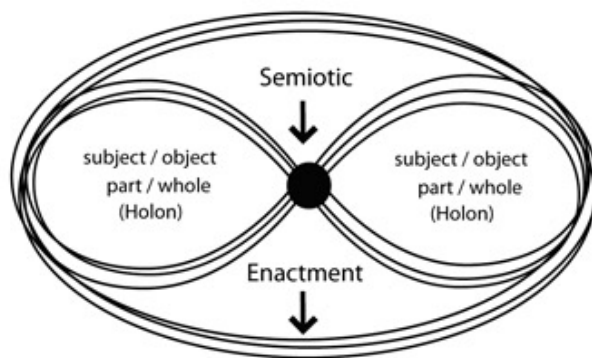


Figure 4 Diagram showing primordial Meta-Type “Source”

Figure 5 shows how types may be represented within an AQAL quadrant diagram as a way of illustrating a particular horizontal systems dynamic or set of dynamic patterns at a vertically specified location or locations. This diagram also shows a representation of meta-types (e.g., more widely manifested types like masculine/feminine) and Source, the primary meta-type, and its relationship to the primordial perspectives of the AQAL quadrants. What this diagram helps illustrate is that the quadrants themselves represent a meta-type, a dynamic pattern of enactment originating where the perspectives intersect at the centre of the cross. The *semiotic* “point” of the Source diagram overlaid with the quadrant *intersection point*, or “integration point” indicates that they are two different but overlapping

ways of signifying original/primordial patterns/perspectives: both diagrams include subject/object/part/wholes and a signification of enactive development. One focuses on “forming” vertical depth (creative advance) and the other on “formed” horizontal span (dynamic patterns). We now have representations of two *overlapping Integral objects*- one enacted from a focus on “horizontal” perspectives and one from a focus on “vertical” perspectives.

Figure 5 also illustrates the relationship of types to meta-types. Types are more specific dynamic patterns that we identify at a location. The popular Myer-Briggs types are a good example. These are types of personality located in known lines and levels of the Upper-Left quadrant. Meta-types, like masculine/feminine are more general and may be applied at wider locations. The primary meta-type, Source, is the most general and most widely observed organizing principle: that principle being simply that the universe has a deeply ingrained habit—evolutionary semiotic enactment.

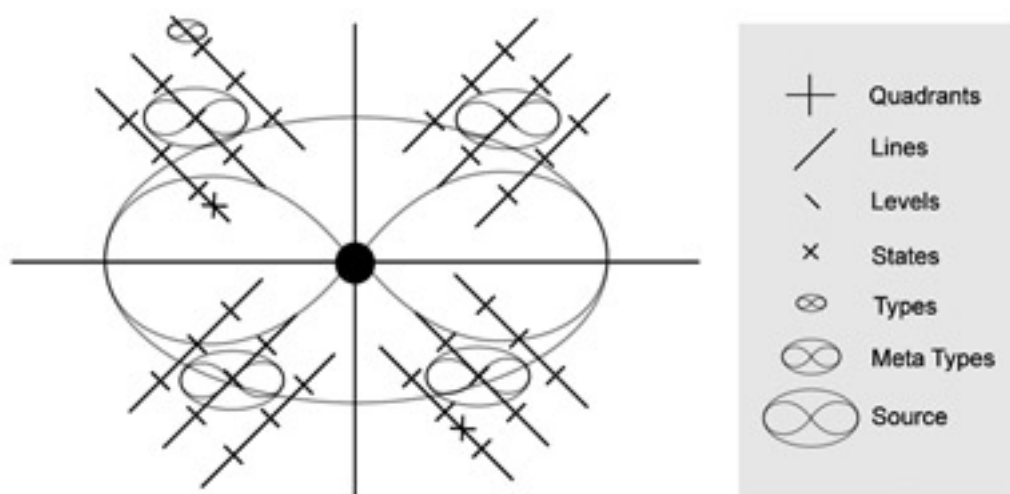


Figure 5 AQAL Diagram showing quadrants, levels, lines, states, types, meta-types and Source

Figure 6, entitled Integral Kosmosemiosis, signifies a primordial integrated perspectival/semiotic dimension of the Kosmos. It is an integrated form of Source. As a primordial meta-type we can work with it using the same method we use to work with PD patterns: learn to recognize, evaluate, and balance and integrate it in

service of enduring health and ongoing evolution. By learning PD patterns, or any other system of meta-types, we learn to see, balance and integrate the dynamics of Source—in all its aspects—without having to work out the complexity of its vast evolutionary inter-enmeshed dynamics. Sustainability then becomes the process of relaxing and trusting in the evolutionary intelligence of the Kosmos, to play in the enactment of Kosmosemiosis such that we dance with it rather than fight against it.

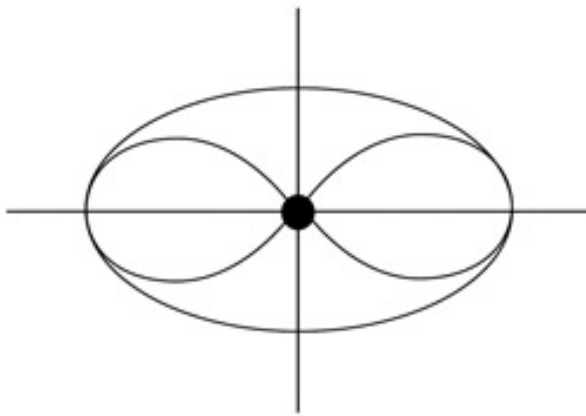


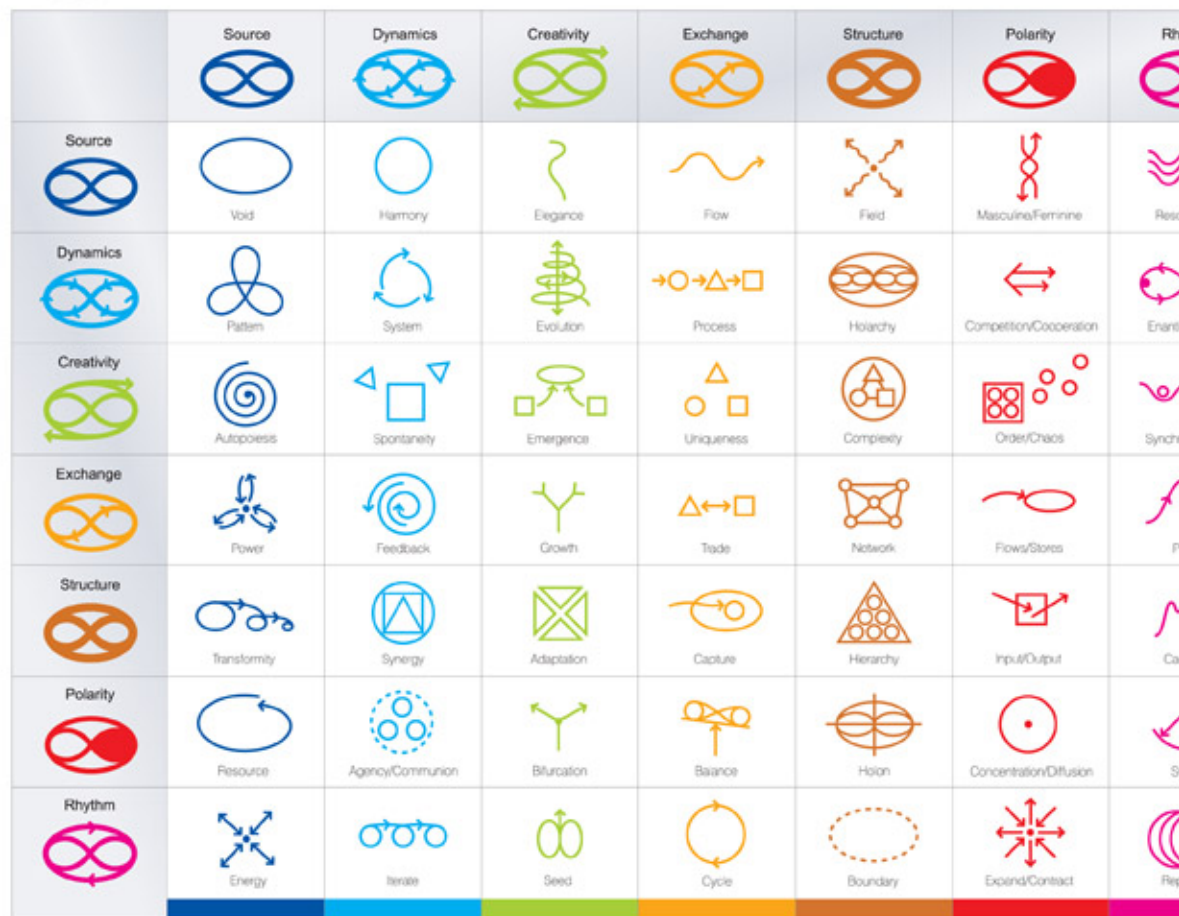
Figure 6 Symbol of Integral Kosmosemiosis

Semiotic enactment is the injunction required to bring forth, from a Turquoise perspective or higher, the Integral object, Meta-types.

In part, what I am trying to do here is to encourage a move to a more *span based, horizontally focused, dynamically oriented, ontological embodiment concerned approach, focused on enduring health*—what I would characterize as a more **feminine** approach in Integral Theory and Practice—to compliment the yet-to-be-balanced more **masculine** focus on the *depth based, vertically focused, address oriented, epistemological knowing concerned, focus on evolutionarily progression* enacted to date in Integral Theory and Practice. This discussion is in service of more fully enacting Integral Theory as a dance in our radiant embodiment as well as a dive into our conscious depth. A little Integral Eve for our Integral Adam.

PatternDynamics™ is being developed as a community of practice for Integral Sustainability educators interested in creating cultures of sustainability within and among organizations of all types and at all levels and scales. PD includes for-profit and not-for-profit offerings in sustainability education based on its core intellectual property the PD Chart. To join the PD community of practice, inquire about training options and to pursue accreditation for professional use, see www.patterndynamics.com.au

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Published as part of the proceedings of the First Integral Ecology and Sustainability Seminar, Westminster CO, 2004.

“Developing an Integral Sustainability Pattern Language”

Published in the *Journal of Integral Theory and Practice*, Volume 5 Issue 1: Spring 2010

“PatternDynamics™: Creating Cultures of Sustainability”

Published as part of the proceedings the Integral Theory and Practice Conference July, 2010

Title:

The Meaning of Planetary Civilization: Integral Rational Spirituality and the Semiotic Universe

Abstract:

This paper composes a formal constellation of distinct, but overlapping, philosophical, methodological, and theoretical commitments enactive within the integrative world-space. This approach is proposed as a basis for exploring a pragmatic meta-worldview capable of carrying meaning making necessary for the formation of a healthy and enduring Planetary Civilization. The heart of this challenge lies in finding a coherent and culturally extensible contemporary integration of humanity's most persistent and foundational dualism—that of materialist and spiritualist views (with their respective ontic/realist v espistemic/idealist orientations) and the over-arching meaning making cosmologies they respectively support. I contend that current integrative approaches are still early in the developmental process of forming such a view, and that while they move us ever closer to a viable nondual orientation, they are ultimately *perceived* to fall on one side or the other of the divide and therefor fail, as yet, to locate a meaningfully comprehensivist stance capable of uniting all of humanity under one cosmological structure. In this paper I seek to develop an integral *pragmatasist* approach, which I refer to as *integral Semiotic Realism*, as a distinction supportive of resolving the cosmological divide. An integral cosmology is then proposed based on the post-metaphysical injunction prescribed by the semiotic enactment of Planetary Civilization through the signification of *Integral Rational Spirituality*. This endeavor fits within and

contributes to the development of Integral Post-Metaphysics, Integral Pluralism and an integrative Realism and strives to locate unity in their diversity.

“The action of a sign generally takes place between two parties, the utterer and the interpreter. They need not be persons; for a chameleon [sic] and many kinds of insects and even plants make their livings by uttering signs.... However every sign certainly conveys something of the general nature of thought, if not from a mind, yet from some repository of ideas, or *significant forms*, (my emphasis) and if not a person, yet to something capable of some how “catching on”.... That is [,] of receiving not merely a physical, nor even merely a psychical dose of energy, but a *significant meaning* (my emphasis).”

—C.S. Peirce (sited in
Corrington, 1993, pp. 163)

“The thermodynamic need to specify work implies semiotics, and energy quality is inherently semiotic. Work requires information...”

—S. N. Salthe (2005, pp. 142)

“Which worldview can adequately depict and integrate both rationality and spirituality—and thus fully elaborate on the worth, as well as the contradictions—of traditional, modern and postmodern positions alike?”

—R. Benedikter and M. Moltz
(2012, pp.58)

Introduction

In this paper I put forward a case that the main priority of integral endeavors, at this time, should be to work deeply *within* and to enable ‘modernity’, despite—and in fact *because* of—its destructive tendencies, atrocities, and its industrial scale capacities for undermining the ecological and social foundations of the planet we live on. That from an integral perspective, to seek to transcend modernity before we have established a healthier, horizontal manifestation of it, and before it has, in fact, reached a certain stage of maturity, will make it impossible to include it as anything but a deep and destructive shadow within an emerging Planetary Civilization. Furthermore, I contend that in order to facilitate, not only the reduction of pathologies, but the enhancement of actual (and, of course, already substantial) *apithological*, generative health (Varey, 2004) within modernity, it is necessary to introduce a source of *ultimate meaning* as a foundation for strengthening appropriate ethical behavior within the modern milieu. I propose that this can be undertaken via the generation of a viable *nondual*, integrative planetary cosmology—one that will be acceptably interpreted as the origin of reverence, deep meaning, and ultimate significance so as to provide a source of underlying unity for the diverse perspectives of traditional, modern, post-modern and integral worldviews. A nondual approach of this nature, however, may entail modifying, within the integral context, the meaning of some of our deepest notions of ‘spirituality’ itself.

In laying out the supporting argument for an integrative planetary cosmology (the terms ‘integral’ and ‘integrative’ will be used interchangeably in this paper) we will explore and attempt to configure elements from somewhat diverse philosophical, methodological and theoretical traditions. We start with an examination of current discussions between, and the work of, two of the most prominent integrative meta-

theorists—Roy Bhaskar, with his philosophy of Critical Realism/metaRealism (CR/MR) and Ken Wilber, with Integral Theory (IT). We work through the claimed and counter claimed orientations to ontological foundationalism and epistemological bias respectively. These assertions are examined in relation to: what it *means* to be interpreted to fall (not necessarily wholly, but at the very least as a bias) on one side or the other of what I refer to as the ‘cosmological divide’; and, why this matters. The cosmological divide is here defined as the boundary region between worldviews that are, however subtly, *perceived* (interpreted) to be orientated more to either an epistemological view, where some sort of conscious sentience or ‘interiority’ pervades and is foundational to reality, or an ontological view, where ‘objects’ or ‘real things’ are foundational and underpin any forms of consciousness. Both Wilber and Bhaskar claim a nondual stance. I argue that, while this may be true and supportable within their own (substantial) frameworks, from a wider, pragmatic point of view, neither as yet do. It may be a third, and lesser known (though only in the English speaking world), figure—also considered an integrative meta-theorist—Edgar Morin, with his orientation to *Method* as a process of inquiry within the discipline of Complex Thought (CT)—and with it the possibility for constructing the *meaning* that will allow us to sustain ‘homeland earth’—who provides the most fruitful direction in which to look for a ‘way’ of resolving the cosmological divide.

In the middle section the connection between method, inquiry, and meaning making is extended and an argument is mounted that a *semiotic* approach will best serve as the foundational logic of an integrative cosmology. Sean Esbjorn-Hargens’ (2010) work on Integral Enactment Theory (IET) and my related idea that *integral enactment* may be interpreted as *semiotic* in nature (semiotic enactment) are reviewed. Semiotic Enactment (SE) is a concept I developed initially in relation to IET to support a *theory*

of meta-types, which in turn underpins the development of an integral sustainability pattern language, PatternDynamics (PD). (Winton, 2010 a) PD may be embedded within IT as a set of meta-types, and it also has a strong resonance with, as a particular ‘complexity language’ framework, the more general notion of CT. SE is then evolved to act as a bridge, and therefore a middle ground in its own right, that can demonstrate the nonduality of epistemology and ontology within a semiotically orientated cosmology-building context. Here we explore the idea of ‘semiotic depth’ to compliment the strength of Bhaskar’s categories of ontological depth and Wilber’s development of epistemological depth. We go on to incorporate further aspects of Charles Saunders Peirce’s sign theory into SE (which already borrows substantially from his semiotic philosophy) to develop a distinct type of *pansemiotism*, signified as *integral Semiotic Realism* (iSR). We investigate Stanley N. Salthe’s requirement, in light of the discoveries of the complexity sciences, for the reintroduction of the last two of Aristotle’s four types of causes—*formal* and *final*—in order to form a coherent contemporary, scientifically grounded cosmology (Zimmerman, 2013). Rupert Sheldrake’s work on formative causation via morphic resonance in morphic fields is put forward as a basis for reinstating formal causes. A tradition of thinking about *energy quality* (the so called 4th law of thermodynamics/energy), extending from Odum to Lotka and back finally to Boltzmann, Clausius and Carnot, is substituted for Salthe’s proposition that the 2nd Law of Thermodynamics should account for final causes.

In the concluding section I speculate on: the pragmatic implications of IRS v current integrative approaches to spirituality; the nature of its more naturalistic orientations; how IRS and its embeddedness within a Semiotic Realism may function as the basis of an integrative nondual cosmology; why this is critical to the essential project of

fulfilling the promise of modernity; and, why that is of central importance to the human project. Finally we look at what the preceding items might mean for those of us identified with an integrative worldview in the development of Planetary Civilization.

Modernity and Planetary Civilization

The notion of Planetary Civilization is here *not* synonymous with an integral or post-postmodern society, in the sense of a society where the dominant majority of power, influence and activity takes place from within an integral worldview. There is no doubt, however, that for the first time there is evolving a human society global in complexity, scope, scale, interconnectedness, environmental and social effects that puts us firmly in the Planetary Era (Morin, 1999) (Stein, 2010): Planetary Civilization is already upon us. And it is, I suggest, in the main, distinctly *modern* in character.

While it may be argued that some of the technologies leading the development of this latest phase of modernity and the cognition behind them fits within an integrative/post-formal emergence, it does not change the fact that their effects are at this stage only to enhance the activities of an unprecedentedly powerful modern world. And with billions of people all over the planet unrelentingly taking up the opportunities afforded by modernization, the development of this Planetary phase of modernization has really only just begun. What effects self-consciously integrative communities of practice are having on this development currently, or may scale to have going forward, is difficult to determine. Only relatively small numbers are projected to enter post-formal orientations in the near future. To gain any real traction integrative initiatives will have to be strategic, targeted, and find highly leveraged approaches that are *meaningful* enough to act at scale in order to have significant effects within the globally dominant dynamics of modernity.

We will use Bhaskar's (and Habermas's) (2007) convention and refer to the distinction between modernity and post-modernity as one akin more to degree than of kind. Bhaskar (2002) sees postmodernism as an element of the larger "philosophical discourse of modernity." (PDM) Going forward, the use of the term 'modernity' or 'modern' will refer to both modernity and post-modernity, as they are more generally recognized, as well as Bhaskar's distinction regarding 'modernisation'. Bhaskar's last phase of the PDM, Western (Bourgeois) Triumphalism is replaced with a distinction signified by the term *Planetary Civilization*. While it is important to understand the differences between the various phases of modernity, particularly between what Bhaskar refers to as high modernity and so called post-modernity, the grouping put forward here is important for the position stated in this paper. It is also consistent with Wilber's (1995) critique of both modernity and post-modernity as 'flatland' worldviews. Flatland being the term for signifying his critique of the lack of recognition of depth or 'interiority' as a foundational aspect of reality by both modernity and post-modernity, and that it is only at a collectively integral and individually post-formal level where a major transition begins that integrates both 'interior' and 'exterior' realities in a nondual orientation.

This view of modernity also reinforces the fact that sustaining the activities of the (economically) developing world (modernization), and the existing economic throughput of those nations already having industrialized (modern/post-modern), is humanities greatest challenge. This challenge can be met by finding ways to make sustaining human society and the planet we live on more *meaningful* and therefore more visible within modernity. A key component of this strategy is the requirement for forging a new *source* of 'ultimate meaning' as a basis for ethical guidance.

Ultimate meaning of this sort, and any deep rational for revering the cosmos (and by

extension our own world), has been largely absent from modernity since it rejected the guiding spirituality of more traditional historic societies. The spiritual consciousness of traditional periods that supported the overarching ethical programs of those times, such as they were, were replaced in modernity by a cold materialist turn. Human consciousness was now relegated to but an epiphenomenon of material processes in a meaningless and purposeless universe. The destructiveness of modernity is surely linked to this ‘cosmology of meaninglessness’. It is like a great gaping bottomless existential hole that we try and fill with the only things that can signify high levels of meaning within a materialist cosmology—material artifacts. A form of spirituality readily acceptable within modernity could conceivably remedy this, but it would need to meet the requirement by modernity for being situated within a cosmology that is *rationality* explicable. In this regard the voice of modernity will have to be respected, not just because it looks like (within this view) it has to be, but because no spirituality can claim to be truly *integral* unless it does.

The *Meaning* of Meta-theories

It is because of their power to influence the articulation of modernity—that is, the more horizontal development of its type, health, and maturity, and its effect on the emergence of Planetary Civilization—that the debates regarding the philosophical positions of integrative meta-theories *matter*. To the outsider issues related to the establishment of these positions may seem like highly intangible, overly convoluted, or trivial details, but I think we rightly assign them the utmost importance. They are the stuff of our cosmologies and our cosmologies are the *source* of our ultimate meaning and spirituality, and by extension the basis of our understandings, norms, ethics, actions, social, political and economic behaviors. Wars have been fought, empires forged and lost, and the dominant modes of existence for virtually everyone

who has ever lived have been prescribed by the prevalence of spiritually orientated, epistemologically grounded worldviews or more materially orientated, ontologically grounded worldviews. (Harman, 1998) As Mark Edwards, foremost scholar of the practice of meta-theorizing itself, notes:

the impact of social theory, and particularly of big-picture theorising, can occasionally be so deep and so ubiquitous that there could hardly be a more powerful example of the influence of ideas on the concrete social practices and lived human experience. (2010, pp.47)

As an aside and to clarify: ontologically orientated views need not be founded in the requirement that everything stem from material causes or from matter/energy as such. Certainly Bhaskar's ontological position is not: *real things* need not be 'material' in his view (Collier, 1994), nor are they ultimately grounded necessarily in matter/energy in the foundational mechanisms of the *intransitive domain* of his system of 'depth ontology'. However, the general feeling by modern Western scientifically informed views is such that any ontological position will lack rigor unless it can be *interpreted* that way.

Wilber asserts that, while not fundamentally materialist, Bhaskar, with his investigation into the possibility of science and the development of CR/MR, constructs a view that prioritizes ontology over epistemology and in fact separates them as distinct domains. In a recent article in the *Journal of Integral Theory and Practice*, Wilber states:

CR separates epistemology and ontology, and makes ontology the level of the "real"; whereas, for Integral Theory, epistemology and ontology cannot so be

fragmented and fractured, but rather are two correlative dimensions of every Whole occasion (part of the tetra-dimension of every holon). (2013, pp. 43)

Bhaskar in an article published in the same Journal edition rejoins on Wilber's comments:

I do not "suck consciousness out of all being and then make being the basis of the real." On the contrary, I start with consciousness—in experimental activity—and ask what it presupposes. (2013, pp.40)

Here, we see that Bhaskar does not accept that he is on the ontological side of the cosmological divide; nor does Wilber accept that he be relegated to the epistemological side. Wilber's assertion about Bhaskar's position is based on his own grounding philosophical view. In an article transcribed as a summary, for Bhaskar, by Paul Marshall, of a conversation he had with Wilber where Wilber lays out his core criticisms of CR/MR, Marshall elaborates on this point saying,

Wilber's main criticism of Critical Realism is based on his panpsychism (or pan-interiorism, as he prefers to call it in his writings). For him, the universe is made up of sentient beings with perspectives, "all the way down" to sub-atomic particles (in the form of Whiteheadian prehension). (2013, pp.35)

Wilber's integration of panpsychism/pan-interiorism (epistemology) with the requirement to specify the method (methodology) in enacting objects (ontology) is perhaps best summed up by a statement used by Wilber to articulate his 'post-metaphysical' stance: "the meaning of a statement is the injunction of its enactment." (Wilber 2006, p.268) While Wilber's panpsychic, post-metaphysical view within IT may appear to be a more integrative stance than Bhaskar's CR/MR ontology, it still

demonstrates a bias by making the meaning of an assertion about reality (ontology) contingent on injunctions (methodology) of enactment (epistemology). It also suffers from a serious criticism in the eyes of Critical Realists. It is a criticism upon which the full weight of Bhaskar's core philosophical edifice is brought to bear: CR/MR's transcendental argument that purports to establish the independent ontological status of real things independent of any knowing subject. (Bhaskar 2002) In relation to Wilber's position from a CR/MR perspective, it is worth quoting Nick Headlund-de Witt at length:

The claim here is that the ontological status or being of an object is brought forth through the consciousness (epistemic structures) and behavior (methodological injunctions) of the knowing subject—the being engaged in the enactment. But what then, a critical realist might ask, is the ontological status of the one who enacts? This appears to be overlooked by IT as it has been explicitly articulated to date, yet there appears to be an implicit presupposition and thus concession of the ontological existence or reality of at least one object—that is, the being engaged in the process of enactment—since in order for that being to enact anything at all, it must first exist as a real entity or object. Thus, IT and its post-metaphysical theory of enactment seems to necessarily presuppose the ontological existence or 'givenness' of at least one intransitive object. How can the being of an object be constituted through the process of enactment, if the process of enactment is inexorably driven by—and contingent on—a being that is itself an object? In this way, from the vantage point of CR, in order to begin the process of enacting or knowing anything, one must presuppose some kind of philosophical ontology—some kind of 'metaphysics' if you will. And following Bhaskar's

transcendental argument, such an ontology or metaphysical proposition must presuppose the existence of an enactment-independent or pregiven world.

Therefore, when Wilber claims that “post-metaphysical thinking does not rely on the existence of a pregiven world,” he appears to be unaware of the tautological and self-contradictory logic undergirding this so-called post-metaphysical position...” (2013, pp. 8)

Or is he necessarily? Bhaskar’s transcendental argument is just that—and it may only be posited by a *subject*! Powerful as transcendental arguments may be, no doubt, in part, by virtue of the fact that they have been employed to good effect by Kant (and of course, also by Bhaskar) and thereby endowed with a certain philosophical currency, in no use are they immune to the criticism that they can only be employed by a subject in the *first* instance: immediate subjective experience is our sole means of primacy. In this light it is not necessarily logically clear that “in order to begin the process of enacting or knowing anything, one must presuppose some kind of philosophical ontology” when the only way this presupposition can be made is by first *experiencing* as a *subject*. Or, as Wilber might contend, the subject doing the enacting is in fact a subject/object (holon), as these two perspectives cannot be divided.

Here we see the problem: neither argument is able to emphatically claim the foundational position. To try and do so leads only to an infinite regress wherein the existence of one side of the duality presupposes the pre-existence of the other, ad infinitum. Or to put it another way, a foundational metaphysical *given* must be arbitrarily specified in any case: either *experience* or *objects*. To be fair, although Bhaskar is not in any way denying subjectivity, it does appear that in emphatically refusing to separate the subject from the object (or the possibility of reducing one to

the other), Wilber has the more *integrated* view. IT as Wilber is at pains to point out also has its own ontology. (Wilber, 2013) However, this does not change the fact that each side interprets, perhaps astutely, the stance of the other as signifying an unnecessary dualism, even though, as we will see there may be a method for reconciling the truth of both views. My point in reviewing this debate is that perhaps we are barking up the wrong philosophical trees, so to speak. Furthering this discussion will only see us flip flop ever closer on either side of the cosmological divide without ever landing on it. However, if we were to actually land on it, perhaps we could enter onto a living structure that by its dynamism does not so easily get located in these dualities.

Remember that from a pragmatic or more properly as *pragmatist* perspective (that is, the effects we see these respective views to have and thereby use to evaluate them objectively) these philosophical discussions ultimately come down to *meaning* and *interpretation*—their *significance*. No matter how subtle the interpretation that these positions lie on one side or the other of this duality, it *is* of profound importance that this splitting *is* in fact happening. If they are vying to provide the ground of our fundamental view of reality in an emerging integrative world-space, then their respective dualities will preclude the establishment of a cosmological view that has the potential to resonate with the constituents of all the major planetary worldviews. If it sits on the *ontological* side, a view will offend traditional and integral ‘spiritual’ sensibilities; and, if it sits on the *epistemological* side, it will offend the essentially materialist (or at least naturalistic), ‘flatland’ orientations of modernity/post-modernity. As I stated earlier, both philosophies have legitimate claims, within their own constructs, to nondual status; however, clearly they are not being *interpreted* that

way by each other. Explicitly or implicitly, Wilber accuses CR/MR of predicating an ontological fallacy, and Bhaskar associates IT with what he has termed the epistemic fallacy. In the wider field of their engagement, they do not generate the basis for a nondual cosmology. However subtly, each is *interpreting* the meaning of the other's position as dualistic—as either *idealism* or *realism* respectively.

Edgar Morin brings to his work a depth of philosophical and theoretical rigour comparable to Bhaskar's and Wilber's, however his approach is *not* to work primarily *from* the establishment of a philosophical position or theoretical framework. He deliberately constructs a *Method*, a kind of 'active inquiry', which takes as its central and foundational rational the refusal to be pinned down in dualistic thought.

'Morin' s broader vision of complexity and of thought explicitly connects reason and emotion, wisdom and compassion, idealism and realism, and the other oppositions that have been created and are representatives of what he calls " simple thought." (Montuori, 2004)

Through the idea of complexity and the discipline of Complex Thought, Morin, then, is contributing an essential component to integrative work. His *Method* points out the subtle *interpreted* duality created through the establishment of epistemological and ontological positions, no matter how 'nondual' they may intend to be in-and-of themselves. This approach gives us a means of resolution. As Alfonso Montouri points out, "Morin's method outlines a way of approaching inquiry that does not reduce or separate, and does justice to the complexity of life and experience." (Morin, 2008) For Morin understanding *complexity* becomes the means of integrating dualities. And as do both Wilber and Bhaskar, he understands the importance of the connection between nonduality, the deep meaning of a spirituality so situated, and the

provision of an integrated world. Montuori states that

The fact that the introductory chapter to the first volume of [Morin's] Method is called The Spirit of the Valley, drawing explicitly on the Taoist tradition, is significant in many ways, pointing to what Morin calls the dialogical (not dialectical because there is no guaranteed resolution) relationship between traditional polarities, and to a deep, underlying spiritual thread running throughout Morin's work. It reminds us that the spiritual is always present in his work, but in a far subtler way than has become the norm these days. (2004)

Theoretical and philosophical positions are indispensable and necessary. But, it is only when we have a way of resolving the final dualities they create that we have a *sufficient* integrative 'way' that is not inclined to be interpreted as dualistic and that is therefore *meaningfully* nondual. This is so precisely because *a way of inquiry* about a complex world is inherently much more fluid than is the business of describing philosophical or theoretical foundations of that world. This fluidity imparts the ability to 'shift' dynamically and continuously—an idea to which we will return—so as to avoid being pinned unnecessarily to one side or the other of thought in a static position. Morin has set us on this path by focusing (perspectively) on the *dynamics* and *patterns* that manifest as the organisation of complexity itself, and how these help us understand and therefore signal to each other about the nature of our complex reality in effective and fully integrated ways. His secret is that engaging in complexity allows him to focus on a method of integrative meaning making. Morin illuminates the central position described by the relationship between an integrative 'how' (form of inquiry/*Method*) and the generation of the *field* that makes possible a complex integrated 'we' (perspectival *system*). This points strongly to a connection between

our method of signalling, the meaning we make of it, and therefore what *we* collectively enact as *the real*. This puts us firmly in the domain of sign theory and a foundationally semiotic approach, which is the topic we engage next.

Semiotic Enactment (SE)

Having spent some time now on the context of this argument, we must now travel more quickly, the strategy being one of design wherein if the challenge is to invent the glove, a thorough investigation of the contours of the hand will be the most productive portion of one's time. It is perhaps ambitious to cover so much ground, given the limitations of this paper; however, our purpose here is not necessarily to make an overly comprehensive case at this time, but to build on the idea of previously developed theory (SE), and to speculate on the outlines of a related and emergent inquiry. This must then be carried forward and formed iteratively (or rejected as inaccurate) by those methods both active and revealed.

Below is a review of my previous construction (Winton, 2010 a) of SE from Sean Esbjörn-Hargen's (2010) IET. In a move that seeks to establish a more pluralistic approach within AQAL Integral Theory and Practice, Esbjörn-Hargens, no doubt influenced to some degree by his recent connection with Bhaskar and CR/MR, and perhaps too motivated by the vision of steering IT back to a more convincingly nondual position given Wilber's post-metaphysical turn, makes a case for remedying the fact that while methodological pluralism is explicit and epistemological pluralism is implicit within IT, "curiously there is no mention of ontological pluralism within Integra Theory." (Esbjörn-Hargens, 2010 pp. 146) Figure 1 represents the "triadic

combination... *Integral Epistemological Pluralism* (IEP), *Integral Methodological Pluralism* (IMP), and *Integral Ontological Pluralism* (IOP). Integral Pluralism forms the basis of what I am calling *Integral Enactment Theory* (IET).” (Ibid, pp. 146)

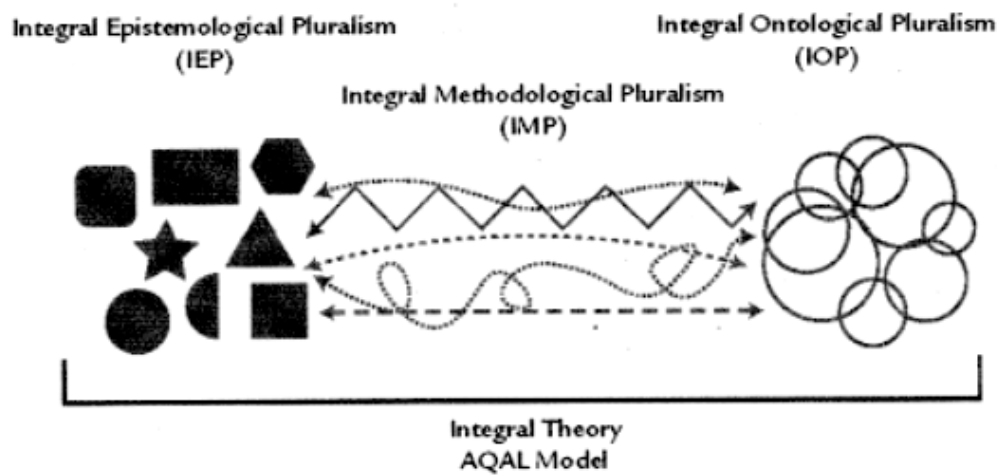


Figure 1 Integral Enactment Theory (from Esbjörn-Hargens, 2010)

To look at IET from a semiotic perspective, in Figure 2, I simplify the diagram and focus on the ‘double hermeneutic’—the fact that not only do (multiple but overlapping) subjects ‘enact’ (multiple but overlapping) objects, but objects are seen also to influence the subject (via multiple but overlapping methods).

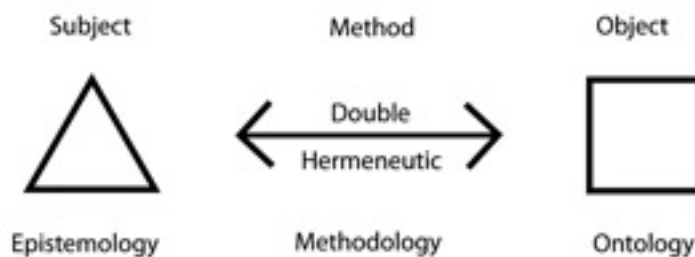


Figure 2 Diagram showing “double hermeneutic” in Integral Enactment

In Figure 3, the double hermeneutic is transformed into a diagram that signifies ‘semiotic’ activity, where the multiple and overlapping infinity/figure-of-eight like

lines represent an ongoing process of signalling and interpretation (hermeneutic) by a subject (which must also have an objective dimension if it is in turn being interpreted) signalling and interpreting an object (which also has a subjective dimension if it is in any way ‘interpreting’ or determining something of the subject).

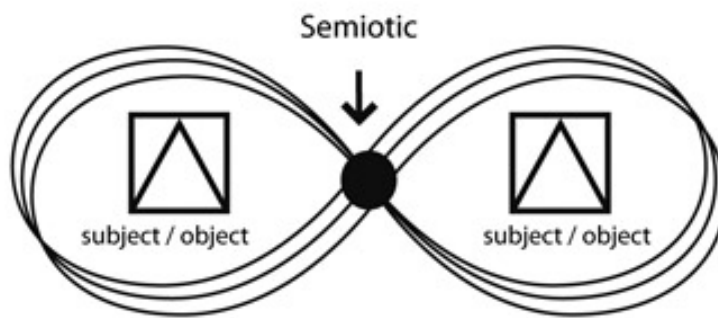


Figure 3 Diagram of ‘Semiotic’ Implicit in Double Hermeneutic

In Figure 4 multiple and overlapping oval lines are added to Figure 3 to signify the enactment of a *pattern of organization* by the ongoing activity of the relationship between the two subject/objects (holons in their own right) that then form a higher order (bounded) holon (forming a holarchy) or complex *perspectival* system. *Semiotic enactment* signifies the process that illustrates the *Source* pattern of the creation of all meta-types—where meta-types are very foundational dynamic patterns that serve as organizing fields within complex systems of (semiotically) interacting parts.

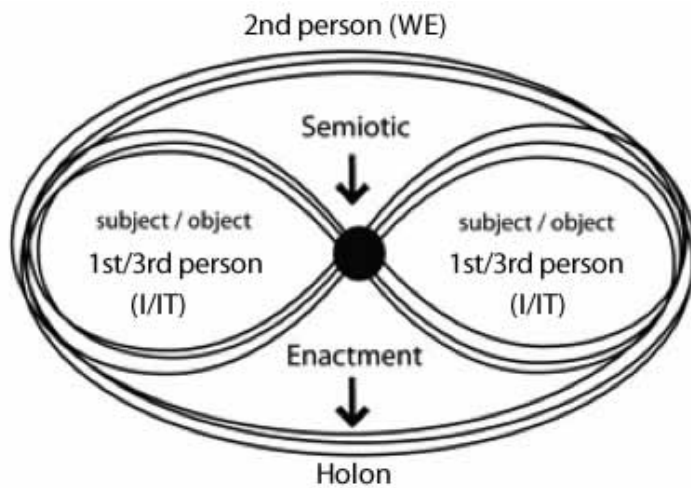


Figure 4 Diagram signifying Semiotic Enactment

SE demonstrates a more dynamic, iterative, systems forming, process orientated take on IET, which is itself an elaboration of the AQAL Integral framework. SE is founded in mutual active inquiry (*semiotic/method*) of signaling and interpretation *between* perspectives that *shifts* IET to show a different and complimentary view emphasizing the complex systems dimension of perspectival realities. This generates a range of possibilities, including the use of diagrams like the ones above to symbolize a range of known patterns of organization from systems/complexity disciplines as a *language* for *thinking*, *communicating* (collective inquiry of meaning making) and *designing* from a perspective of complexity itself. For our purposes here, it is sufficient to have demonstrated SE's relationship to IET, IET's (and therefore the Integral framework's) inherently semiotic dimension, and how this move allows us to take a *perspectival complex systems view* based on the enactment of dynamic patterns of organization. Readers interested in leaning more about this process in more detail, or in learning more about a theory of meta-types and their practical application for integrative work, can see my paper, submitted as part of the proceedings of the 2010 Integral Theory Conference, PatternDynamics: Creating Cultures of Sustainability (Winton, 2010a)

and the article Developing an Integral Sustainability Pattern Language in the *Journal of Integral Theory and Practice* (Winton, 2010b)

Figure 5 overlays the *toroidal* shaped semiotic ‘holon’ (part/whole) diagram representing SE over the diagram representing the IT Quadrants, illustrating the fact that they are different but complimentary ways of representing the foundational *holon* meta-type: SE signifying a more dynamic, *semiotic*, feminine/relational, perspectival systems view; IT representing a more static, *theoretical*, masculine/distinction-making, perspectival ‘map’ (cartographical) view. Both demonstrate the integration of primordial perspectives at the ‘semiotic point’ in the middle of the diagram.

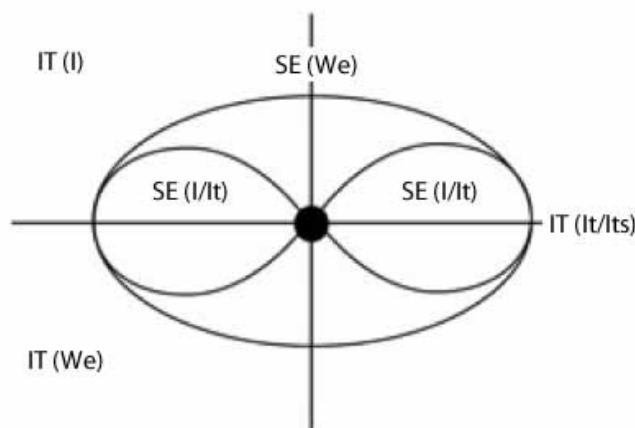


Figure 5 Diagram showing relationship of SE to the IT

The exercise above is undertaken to elucidate the central integrative role that a semiotic approach can play within the creation of a meaningfully nondual view. We are beginning to identify the mechanisms of a process that will allow us to see the complex interactions of perspectives themselves. SE associates the ‘how’ of inquiry (method) with the integrative role of the second-person perspective—the ‘we’ or the field of mutual signaling and interpretation—*significance*—that generates the inter-subjective meaning that brings holons together as greater holons (holarchies/complex

perspectival systems). This in turn emphasizes the centrality of the ‘we’ forming function of semiotics, and it positions the process of semiotic ‘meaning making’ as the bridging territory between subjective/epistemologically orientated views and objective/ontologically orientated views. *Methodology*, in its most general sense, as the requirement of a *primordial semiotic process*, therefor becomes the keystone and foundational logic for constructing an integral nondual cosmology.

The Cosmic Logic of C. S. Peirce

The founder of semiotics, Charles Saunders Peirce, was first and foremost a logician, and he brought to this vocation a certain naturalistic orientation. He is one of the most important founders, in the latter part of the 19th century, of the American pragmatist tradition (which included the likes of John Dewey and William James). He is increasingly recognized as America’s preeminent philosophical thinker. Peirce wrote a prodigious volume of work throughout his life that continued to evolve and consolidate his triadic semiotic structure (sign/object/interpretant) as the central pillar of his logic and the idea that in the end logic and any attendant metaphysics must be grounded in *method* that acts to understand the *means of signification*. Within the post-modern milieu semiotics has been associated with signs, their objects, interpretation and meaning making at the level of human communication, specifically in language (the ‘text’). However, Peirce’s “Classical pragmatism insisted that interpretants were fully part of nature and that the sign/object/interpretant correlation was not confined to the human process and its allegedly arbitrary cultural codes.” (Corrington, 1994 pp. 5) Later in his career Peirce made a distinction with regard to his own work calling it ‘pragmatism’ as opposed to what he felt was a degenerate, populists form promoted by James and others of the original idea of pragmatism. Pragmatism adds to pragmatism “the key recognition that all of reality moves

toward *forms* (my emphasis) of connectedness that give evidence to general laws and principles within an evolving universe... it starts and ends with continuity.” (Ibid)

Clearly, Peirce saw semiotics as native to more than just human language, or what we could look at as ‘anthroposemiotics’. Within it he saw the possibility of its actions in the evolutionary unfolding of life (biosemiotics) and in fact the evolution of the wider cosmos. Peirce did not explicitly extend semiotic to physical realities; however, I do not think he specifically precluded it. Within the renewed and extended field of a more general semiotics, and within the spirit of Peirce’s naturalistic leanings, it has been cast farther back in cosmological time in the form of geosemiotics (physiossemiotics), and I will propose that it can also function as a logic of the trans-rational domains—the theosphere (theosemiotics) and the ‘causal’ domain (kosmosemiotics). Figure 6 arranges these categories to graphically signify ‘semiotic depth’ in relation to the schema of evolutionary depth illustrated by an AQAL Integral diagram of Quadrants and Lines.

Semiotic Depth

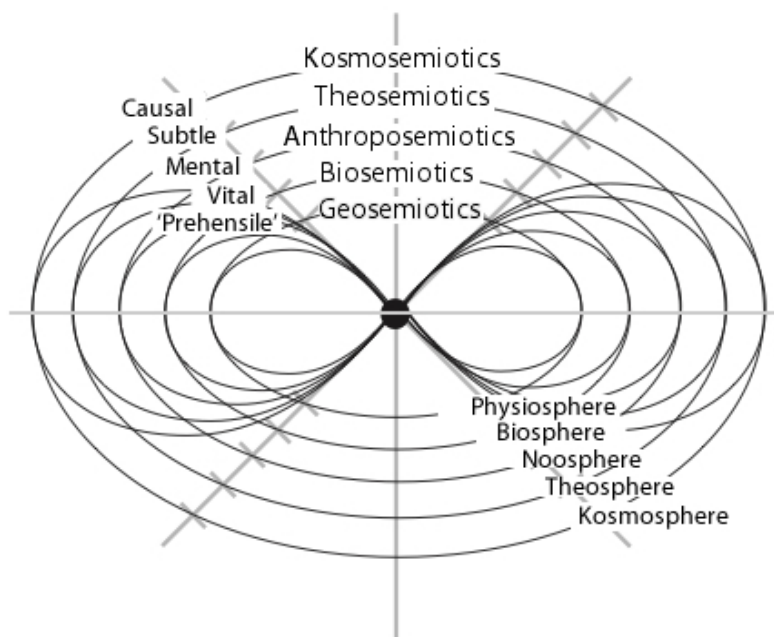


Figure 6 Diagram of Semiotic Depth

Peirce conceived of his semiotic (or ‘semeiotic’ as he sometimes preferred to spell it) as the irreducible triadic relationship involved in any form of thought or inference, where our *means of inference* (claiming to know something) is the defining act of *logic*, and logic is of course the basis of *reason*. Semiotic logic, for Peirce, was superior to conventional dyadic forms of logic, where a thought (sign) ‘appears’ in the mind as a relation to something (the object). Semiotic adds a third requirement—that any thought (sign) must be interpreted (interpretant)—*must be brought to signify something*—to develop any *meaning* in relation to something else (object). It places actively evolving relationality as the connection between the ‘subject’ experiencing and the ‘object’ experienced; or, in other words, it introduces *methodology* as the point of transmutation that precludes any real dualism between *epistemology* and *ontology*. The emergent interpretant then forms a new sign, requiring interpretation in relation to its object and so on in an ongoing, evolution of meaning that illuminates the actual process of thought, or ‘thought processes’. Peirce conceived that we are actually in the process of thought, rather like we might describe ourselves as being ‘in motion’, rather than thoughts being *in* us.

Peirce’s semiotic has three foundational categories: *Firstness*, *Secondness* and *Thirdness*. We can relate Firstness to the sign; Secondness to the object; and, Thirdness to the interpretant. This is a somewhat crude review of Peirce’s seemingly inexhaustible development of his triadic formulations, and it simplifies the matter at the risk of conflating the categories with the things situated within them. However, we do not need a high degree of granularity here, only a recognizably accurate image. In an oft-used example Peirce relates that a child, having no conception of a ‘hot stove’, upon touching one will via Firstness sense a *feeling* (sign), which then encounters the

thing it is related to, or its ‘referent’ (object), as a ‘brute fact’—the pain of touching the stove. It is only in Thirdness, through an interpretation (interpretant) of the sign (Firstness) that places it in relation to the ‘hot’ (Secondness) of the stove, that the sign becomes *meaningful* and therefor a source of knowledge to the child. In his text *An Introduction to C.S. Peirce*, Robert S. Corrington, the interpreter of Peirce’s work who perhaps best understands the importance of his naturalism, explains of Peirce’s system:

His founding category of firstness refers to the undifferentiated quality and potentiality prior to any stain of the actual... The category of thirdness refers to the rational law like habits that govern the world and which make meaning possible. The category of secondness, as the name implies, refers to the brute dyadic interaction that is prior to signification or fulfilled meaning. (1993, pp. 45)

These categories contain a broad logic. We have now isolated the essence of semiotic process as a relation of one thing to another through signification (a *Third*). In reality though, even a relatively simple system with all its multiple parts and interrelationships would create a *field* of intersecting semiotic interactions of unimaginably complexity. I will argue that these fields are at work in the creation (and maintenance and evolution) of any set of relationships where parts interact to assemble wholes (or scalar hierarchies of wholes, holarchies) and create organized ‘form’—whether those forms are semiotically enacted in the physiosphere, the biosphere, the noosphere, the theosphere or the kosmosphere. Semiotic is the logical foundation wherever a precedent thing signifies something of an antecedent thing. Does not the hexagonal stone column signify the crystalline order the basalt magma preceding it? Does not the chemical scent of a flower signify its nectar to the bee; the

word, its referent; an archetype, a story; witnessing, a causal field? And in each of those instances are we not evidencing a mechanism for the coming into organization of Peirce's "forms of connectedness that give evidence to general laws and principles within an evolving universe." If so, then, we have located a *realist* approach to *pansemiotics*.

integral Semiotic Realism (iSR)

In Figure 7, the diagram signifies the *dynamic pattern* of a primordial semiotic *process*. It serves as the basis of an *integral* Semiotic Realism (iSR) supportive of a naturalistic pansemiotics as the foundational mechanism of a viable integrative nondual cosmology and the positioning of Integral Rational Spirituality (IRS) within it.

The diagram signifying iSR shows a relationship among elements of Wilber, Bhaskar, Morin, and Peirce's work and integrates them within that system. Firstness is located with respect to Wilber's 1st person/interior, subjective perspective—the Upper Left Quadrant (epistemology). Peirce does not explicitly associate Firstness with the first person pronoun or the 'subject', but he does describe it as something like pure phenomenological experience when he states that it must be

“entirely separate from all conception of or reference to anything else... The First must therefore be present and immediate... It is also something vivid and conscious; so only it avoids being the object of some sensation.” (1991, pp.190)

The arrows on the oval-like shape on the left hand side of the diagram indicate that the sign emerges as a quality of Firstness from what is termed the 'nondual origin' in

an *epistemic emergence* of, as Peirce put it, ‘feeling’. In this process it undergoes an arc of evolution as it heads back to its origin in the *nondual return*. Here the sign progresses back through the nondual origin to encounter Secondness, which is located with Wilber’s 3rd person/exterior, objective perspective—the Right-Hand Quadrants (ontology). Peirce (Ibid pp.189) describes Secondness as something clearly about objectiveness when he says that “it is something which is there, and which I cannot think away, but am forced to acknowledge as an object or second besides myself...” The sign/object then undergoes an *ontological emergence* and evolution through to its own *nondual return* to its source to reacquaint, as a fully distinct ‘other’, with its Firstness. Here it travels to the outside oval. Next it moves around the oval through a process of signification and obtains Thirdness. Thirdness is located with Wilber’s 2nd person/cultural, inter-subjective perspective—the Lower Left Quadrant. Thirdness “as a category, refers to the power of mediation that brings the earlier dyadic structure into a higher form of relationality, a relationality that is intelligible and that manifests law-like regularity.” (Corrington, 1993 pp.125) Thirdness brings a new quality of ‘law-like’ order or ‘habit’, as Peirce would say, to the concept of the 2nd person space. It is through a *method* of inquiry that the ‘*sign-ificance*’ of the relationship between epistemology and the ontology can be transformed into a *dynamic pattern* of order. This is the essence of semiotic enactment.

It is worth noting that SE specifies that every act of Firstness will also have a concomitant act of Secondness; and likewise Secondness, Firstness. Any relation is a relation between holons and therefore the diagram should be more complicated and have arrows and processes running in both directions. Rather like the reciprocal transfer of water and minerals from the roots to the leaves, versus the transit of photosynthesized sugars from the leaves to the roots in the spreading roots, trunk and

canopy of a tree. This image helps illustrate the more three dimensional dynamic torus pattern that cannot be signified so easily through a two dimensional diagram.

integral Semiotic Realism

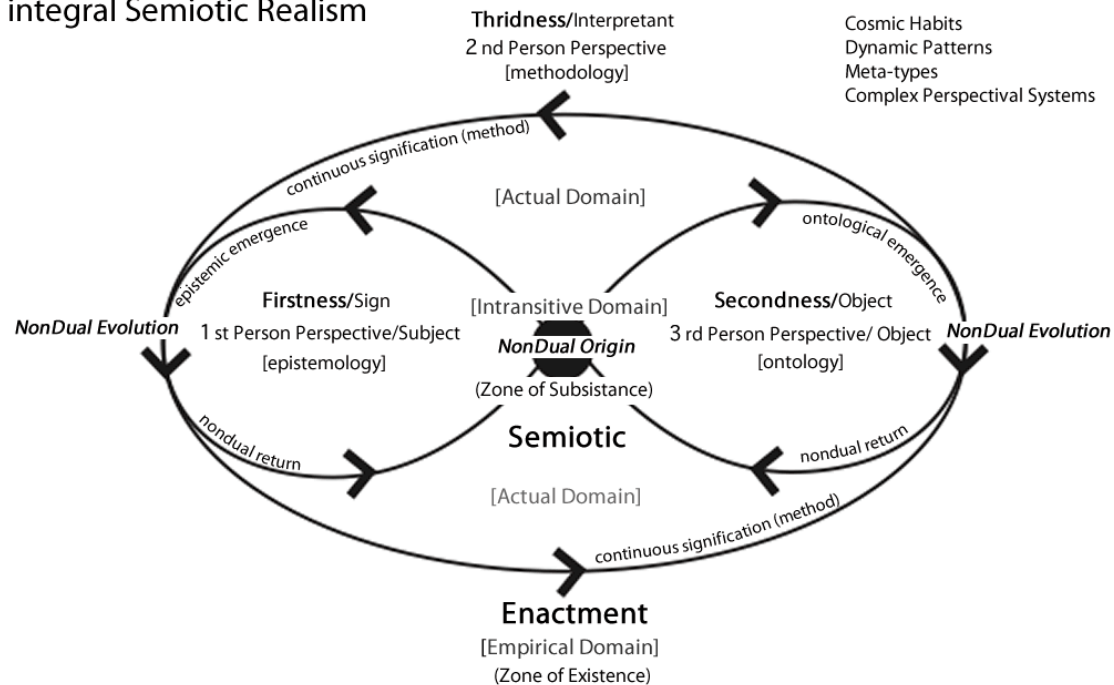


Figure 7 Diagram Representing the Process of integral Semiotic Realism

The ‘nondual origin’ in the center of the diagram signifies what we have not yet discovered empirically (and may never) about the nature of reality (the *intransitive* domain CR/MR; zone of *subsistence* IT). Here we can declare our metaphysics, and like Peirce simply admit that there are certain categories we need to speculate on, or ‘believe’, in order to generate *any* fully transparent foundational philosophical view. Scientific inquiry may illuminate the mechanisms of our speculations over time—if they are real—and our speculations may provide hypotheses to assist in that work. It is not clear that transcendental argumentation or an appeal to post-metaphysics will necessarily add anything here.

The speculative postulate central to iSR (an eminently naturalistic one), and the one that supports its nondual stance is that: remaining (and evolving) from the explosive

energy event of the *singularity* that initiated our cosmos (The Big Bang), there is a persistent aspect of this nondual origin that imparts a ‘unititiveness’ to all of *existent/transitive* reality. The nondual is present as both *subsistent/intransitive* origin and the ongoing evolution of all *existent/transitive* things that emanate from it. It is non-local, non-temporal, and a dimension where there is no duality of Firstness and Secondness or the relation between them, Thirdness (no epistemology; no ontology; no methodology—the *collapse of the semiotic triad*). And, we need to give the standard declaration that descriptions of nonduality *itself* are therefore impossible—including this one, so we will have to proceed by a kind of pragmatic false analogy. Having said that, it is the view here that it *is* possible for what Bhaskar terms ‘mechanisms’—the basis of his foundational ontological level, *the real*—to *subsist* in the nondual and be efficacious in the transitive domain of *existence*. It is just that there is no way to signify the nature of how they might subsist as nonduality.

By virtue of being *of* that ‘unititiveness’ everything is connected to everything else and the possibility of any sort of relationship (and therefor the semiotic enactment of any *existing* ‘real thing’/holon) whatsoever is predicated on this unified nondual basis of reality. An aspect of the original cosmic singularity persists and predicates the relatedness of the parts of anything that comes to be *existent* (enacted) as a holon/complex perspectival system (IT); or, in other words, that comes to be a *transitive* object in the *actual* or *empirical* domains (CR/MR). This is consistent with Bhaskar’s view that “the non-dual is not only ubiquitous and indispensable to any mode of (human) being or eventuation, it is prior to dual forms and phenomena, which are unilaterally existentially dependent of them.” (Bhaskar, 2002 pp. 10) He calls this the ‘ground state’ where the “ground state is in its essence non-dual, though it may manifest in dual beings...” (Bhaskar, 2002,b pp lvi) It is also consistent with

quantum theory, at least in the notion derived from it, of non-locality as one explanation of quantum effects.

This naturalistic speculation on the nature of nonduality is the basis by which any form of semiotic is possible. It provides the *Realism* in integral Semiotic Realism: *The Real* signifies the nondual.

The *actual*, which sits between Bhaskar's intransitive domain and the empirically knowable, is placed in the zone of the diagram where Firstness and Secondness are in relation—where there is an 'actual' occurrence—but before Thirdness confers upon it the law-like pattern of its relations (order) that enables us to empirically know it.

From Panpsychism to Pansemiotism

The *semoitic* realism of iSR is then a naturalistic, nondual realism that promotes a naturalistic, realist pansemiotics. The advantage of this type of pansemiotics over Wilber's Whiteheadian panpsychism is that *thought* (*subjective* interiority, psych or 'mind') does not need to be carried down into the physical domain to do duty as a partner to material and efficient causes to explain the self-organizing capacity of an early evolving universe. I don't think a panpsychist approach will ever be accepted by modern sensibilities. It will always suffer from the homunculus critique—(Deacon, 2012) the interpretation that a little 'mind' has been snuck into a domain that should not include anything related to 'mind' or indeed 'interiority' as such. *Signs* perhaps, but not 'subjects'. Panpsychism is a dualistic approach and the perspective of modernity has called it out. I think modernity will ultimately reject any spirituality of this ilk and therefore any ultimate meaning that could come of it.

A sign in the (pan)semiotic sense, however, while signifying a thought (mental occurrence/thing/holon) at the mental level (noosphere), need not be construed as one at the biological level (biosphere). Here a sign (a biological occurrence/thing/holon) can be interpreted as a process of *organic signification* through macro-molecular inquiry. At the physical level a sign (physical thing/occurrence/holon) need not rely on a panpsychic appeal to '*prehension*'—its significance can be driven by the inquiry of the actions and relations, in the main, of *material* and *efficient* causes. If in this last statement you sense a drift into outright materialism, then we need to incorporate a strategy for bringing in *formal*, and *final* causes to unite the full Aristotilian quadrat of types of causes so as to avoid the criticism that physiosemiotics is just materialism in disguise. *Spirit* has traditionally done duty as an explanation for final causes, where it provides the teleological pull (direction) for the eros of an unfolding (evolving) cosmos. If we are going to effectively remove that kind of spirit (the all pervasive, *pan-interior* kind) from this part of our schema, by our rejection of *panpsychism*, then we will need to find a suitable replacement for its role as a cosmological final cause.

Energy Quality

This takes us to the inquiry of Stanley N. Salthe, a theoretical biologist with a naturalistically orientated interest in general (cosmological) evolution and the notion that energy can develop in *quality*. To satisfy his own naturalistic cosmological inquiry Salthe asks the question why does anything exist at all? His answer is that “the universal has been accelerating so fast (since the Big Bang/singularity expansion) that the universe has been unable to remain in equilibrium internally... [and] This expansion beyond the range of possibility for global equilibrium gave rise to the precipitation of matter, which might be viewed as delayed energy.” (Salthe, 2013 pp. 2) Equilibrium is the state of lowest energy quality of a system. In this state it

contains the most randomness—or alternatively, the least information)—where information is a measure of order. Matter, because of its orderedness in relation to the equilibrium state sought by the rest of the cosmos, contains an energy gradient. The natural force of the universe is to get back to equilibrium by degrading (randomizing/'entropizing') any energy gradient. This tendency is expressed as the *2nd law of thermodynamics* as elucidated, in the mid-nineteen century by Carnot's work in energy transformation efficiencies and later Clausius' statement regarding the relation of the direction of heat transfer in work.

Work is possible because energy gradients are there to provide the energy to do it. Work, an ordered process or system, that uses available energy (the energy gradient) to do something productive, could be viewed as the universe's way of getting back to equilibrium. This is why organized systems, in the complexity sciences, whether they are physical or biological—and I will argue, whether they are also mental, subtle or causal—are referred to as *far from equilibrium systems* or *dissipative systems*. Salthe notes that a scalar hierarchy of energy gradients exists in the scalar hierarchy of dissipative systems evident in the cosmos: there is a lot of low-gradient energy (in the form of simpler more primitive forms of cosmic order like atoms and molecules and their clumping together into things like suns and the energy flows that radiate from them); this huge amount of lower-grade energy of the physiosphere is transformed by biological dissipative systems into energetically more qualitatively complex systems but less energetically quantitative systems—the 'wasted' energy dissipated as heat entropy. The same could be said for the activities of the noosphere, which leap up again in energy quality, but reduce in quantity. For Salthe, the 2nd law of thermodynamics specifies a *final* cause in cosmic evolution. For him, evolution is

pulled along or steered (telos) by the foundational law that the future is dictated by an equilibrium state.

We will take a slightly different view and propose the so-called *4th law of thermodynamics* as an alternative source of naturally situated final causes. In the early twentieth century, when the study of energy in life systems was starting to be explored, Alfred J. Lotka (1922 pp. 147) noted that

It had been pointed out by Boltzmann that the fundamental object of contention in the life-struggle, in the evolution of the organic world, is available energy [energy gradients]. In accord with this observation is the principle that, in the struggle for existence, the advantage must go to those organisms whose energy-capturing devices are most efficient in directing available energy into channels favorable to the preservation of the species.

Now we have a view that is less about the dissipation of energy gradients as an end in itself and much more about how well the organizational forms of dissipative systems (their energy quality or complexity) is suited to compete in the niche specified by an available energy flow (gradient). In order to *exist*, dissipative systems are driven to continually invest their harvested energy in complexifying (increase their energy quality) in order to maximize their rate of continuing to harvest that energy flow. Their very evolutionary persistent *existence* (sustainability) depends on it. Howard T. Odum, founder of the discipline of systems ecology, called this requirement the Maximum Power Principle and proposed it as the 4th law of thermodynamics. (Odum, 1995) For Odum, the evolutionary competition to increase the complexity (quality) of dissipative systems was a principle in itself. He coined the term Emergy to denote, and provide a basis for measuring, the total quantity of low-grade energy it

takes to create a higher-grade more complex form. Emergy (with an ‘m’) stands for *energy memory*.

Rather than viewing the tendency of the universe to seek thermodynamic equilibrium (2nd law) as a final cause, and thereby making the continued energy transformations into more and more complex dissipative structures (including, biological, mental, subtle, and causal *structures*) an enabling *byproduct* of this process, could we not look at it the other way around? Could it not be that the fundamental tendency of the cosmos is to expand a huge amount of energy quantity that will transform into smaller but more complex scalar holarchies of evolving energy quality? This makes more logical sense as the expansion comes before the need to reinstate equilibrium. What if the tendency to equilibrium and the entropy so generated is simply the price for winding up complex holarchies? Or, to shift our perspective a little more, what if the 4th law specifies the habit the cosmos has developed for completing the grand semiotic arch through increasing orders of signification back to its own nondual ground. Could the ‘aliveness’ of energy and its proclivity to ‘wind up’ not be our source of *telos* or final cause, which is ultimately to return to its own nondual source.

This is why the torus diagram is useful for signifying iSR. It illustrates a process that is formed so as to continually evolve to feed back to its origins.

The Pragmatics of Spiritual Signification

Let me clarify the position of iSR. While it is grounded in a foundational naturalism—that is, in a commonsense view that the mechanisms of nature are revealable by us—it does not require an appeal to eliminative materialism (a view that eliminates all but material causes). This would situate it in a type of subtly dualistic, *realism*. Nor does it require an *all-pervasive* spirit, which, alternatively, creates a type of equally subtly

dualistic, *idealism*. iSR is a thoroughgoing nondual view that associates the intransitive dimension (zone of subsistence) with the underlying oneness–non-local, non-temporal, not-twoness of mind/spirit/idealism v matter/energy/realism–of the singularity that originated our cosmos. All things that come to *exist* in the transitive domain do so entirely contingent on the fact that they are, moment to moment, (*re*)acquainted with their nondual essence through the semiotic relational evolutionary *process* that is predicated on their *subsistence* as nonduality. iSR requires only three foundational types of semiotic triads (a triad of triads if you will) to emerge from the nondual oneness, the *intransitive* domain, into the *actual* domain to provide the categories upon which all *empirical* phenomenon can then be enacted:

1. sign/interpretant/object (extension of energy)
2. origin/interpretant/evolution (extension of time)
3. parts/interpretant/wholes (extension of space)

The first of these, energy, has a curious ontological status. It potentiates change; we can measure and quantify its effects, but we cannot measure and quantify *it*. No one has ever encountered energy as a substance. It's ontological status (*quantity*) is dependent on its quality of inducing change–*quality* being something we normally associate with epistemological status. Therefore, in the concept of energy lies the extension into the *actual*, from the *intransitive*, of the sign/object relationship, and therefor it has a certain 'aliveness' that animates and enchants reality. Notice, neither sign (Firstness) nor object (Secondness) nor their interpretant (Thirdness) exist in the nondual ground. No-'thing' *exists* there, per se, at all: there is only singularity. But, correspondingly everything *subsists* there. Within iSR *Mechanisms* (in the Bhaskarian sense) subsist in the nondual origin and have effects on existence and by this they are *The Real*, the ultimate category or *ground state*. Therefore it is not necessary, or

appropriate, in this view to locate or associate ‘spirit’ or ‘mind’ or any kind of epistemological quality in/with the nondual, nor correspondingly should we locate or associate any kind of ‘material’ or ‘objects’ or any kind of ontological quantity in/with the nondual either. In our naturalistic nondual cosmology the ultimate category is the Real–nondual *mechanisms*; or, perhaps a less ontologically slanted way of referring to these ‘mechanisms’ is to signify them as a type of *efficaciousness as nonduality*. Spirit is existent of this efficaciousness: not the other way around and not as equivalence.

This is where iSR parts company with IT and CR/MR and all approaches to spirituality that locate spirit in, or associate it with, nondual realization. If we are of and predicated on the nondual ground then it is within our nature to realize it (our nature is its realization). Both Wilber and Bhaskar have pointed out that this is an inescapable aspect of our everyday existence and that, in fact, it is impossible to depart from it. Within iSR nondual realization is not signified as a spiritual realization: it is signified as *Realization* itself. iSR takes the pragmatist route and (all other inferences being equal) rejects a ‘spiritual’ signification of the nondual by virtue of its effects. One of the central and most important effects being that it entrains a subtle dualism within the signification of the nondual by virtue of ‘spirit’s’ association with the epistemological side of the divide. As we have seen Wilber’s position is interpreted this way, even by other post-formal approaches. Bhaskar is in the strange position where because of the interpretation that CR/MR has fundamentally realist ontological leanings by his post-formal-critics, it introduces a subtle ontological dualism into the nondual from a post-formal perspective; but CR/MR also introduces the opposite subtle epistemological dualism to modern views

via the interpretation of its 'spiritual turn' by Bhaskar's more philosophically modern adherents.

The key perception for modernity will be that there is an unacceptable epistemological dualism in both IT and CR/MR's approach to spirituality. Bhaskar has caused considerable consternation among his more modern orientated supporters with his 'spiritual turn'. Wilber has suffered the slings and arrows of popular discontent, by modernists of all stripes, who mostly reject his overarching spirituality, at times associating it with an unhelpful fixation on populist and superficial orientations to developmentalism, characterized by Zachary Stein as "*the growth to goodness assumptions* (my emphasis)". (2010, pp. 8) Arguably, too, the combination of a perceived epistemic orientation of Wilber's description of spirituality and flawed views of developmentalism by some of his less sophisticated followers, has lead to, at times, an unhelpful type of 'spiritual fetishism'. (Winton, 2012) These interpretations must be separated from Wilber's work itself, which does not suffer from these lacks in sophistication. The related pragmatic effect, and the most important one at this time, is that the subtle epistemological dualism alienates the modern sensibility and therefore hobbles the development of a much-needed source of ultimate meaning there. In this sense, modernity is providing the evolutionary requirement to transcend significations of spirituality that do not have the capacity to be meaningful for all worldviews.

Both Wilber and Bhaskar have created strong integrative meaning for people with post-formal orientations who are looking for the significance of deep interconnected oneness available in communities of practice oriented to spiritual realities. The subtle dualities in Wilber and Bhaskar's respective nondual orientations do not bother their adherents, nor should they in respect of those communities. They are mostly not

interpreted that way and therefore they are mostly not significant. In fact, it appears that both IT and CR/MR act to provide the meaning that attracts people with post-formal leanings remarkably well. Perhaps this will be their central and necessary role, but it does not change the fact that they do not now, and do not look likely to have, any deep appeal to modernity in their current forms. I make this assertion based on personal experience as an integral practitioner working in the commercial realities of modernity and based on observations of the scale of uptake of anything like integral spirituality in the main stream of modernity. Again this is important because even if we were to get demographically unprecedented levels of people shifting to post-formal orientations, the rate of change by this process will still not likely have a significant effect on modernity in relation to modifying the rate of its destructive tendencies in a meaningful timeframe. The strategy must be two-fold: attract people to integral and equip them to work deeply within modernity with a way of being, a cosmology, and a spirituality that engages modernity in a deeply meaningful way.

Integral Rational Spirituality (IRS)

But how do we *do* that? iSR does not reject spirituality. Spiritual realities are fully supported within it, but they are located in a way that recognizes at which levels of semiotic depth they are expressed. In iSR, spirit and spirituality, are only significant within the transpersonal, post-formal domains: the subtle energy fields, visions, luminosities and radiant ecstasies of the theosphere and the causal witnessing/presence field of the kosmosphere. Integral Rational Spirituality then is signified by two primary elements:

- firstly, by making spirituality contingent on theosemiotic and kosmosemiotic only (no association with the nondual ground that is different from the association obtained by activities of all levels of semiotic depth—that is, spirituality is not privileged in relation to the nondual); and,
- secondly, semiotic depth dictates that spirituality is not signified until the transpersonal levels and therefore contingent on beings evolved to that level (that is, spirit is not significant in the physiosphere, the biosphere, or the noosphere).

Signifying spiritual realities as Theosemiotic and the Kosmosemiotic still leaves a challenge in relation to modernity. The question: “how are these spiritual realities *real*?” must be answered.

Morphic Fields

Material and efficient causes are familiar to modernity and account for the majority of explanations therein: material causes are by virtue of the substance out of which something is composed. Efficient causes are simply what we normally mean when we say one thing follows another *because* of it (one object bumping another for instance). Energy itself plays the role of efficient causes here. We have examined a suitable final cause (telos) in the 4th law of thermodynamics, but none of *material*, *efficient*, or *final* causes allow a naturalistic semiotic realism to be endowed with the capacity to prescribe organizational *form*. We need a convincing *formal* cause that explains how the animating potency of the energetic eminence of the universe (final cause) signifies order out of swirling and bumping (efficient cause) things (material cause) in order to complete a convincing integral cosmology. And, we need to connect it with the *Real*

mechanisms of our naturalistic nonduality. This brings us to the work of biologist Rupert Sheldrake, and his hypothesis of *formative causation*.

Sheldrake has pointed out, rather convincingly, that there are still many unsolved problems with regard to conventional scientific explanations of morphogenesis. These includes, the development of biological forms, which cannot be explained by DNA or any other material part of an organism, and physical forms like crystals, whose form, likewise, cannot be predicted from the known laws of physics. (Sheldrake, 1998)

Sheldrake relates that

if an iron magnet, for example is cut up, each part is a whole magnet with a complete magnetic field. Or if a part is removed from a hologram, which is a physical record of interference patterns in the electro-magnetic field, this part can give rise to the entire organizational image... Such physical analogies to the holistic properties of living organisms are examples of field phenomena. Fields are not material objects, but regions of influence. (Ibid, pp. 78)

He subscribes to an

Organismic philosophy of nature [that] has much in common with the Aristotelian tradition... It is more radical than vitalism in that it sees organisms at all levels of complexity, from subatomic particles to galaxies, and even to the entire cosmos, as alive. The organizing roles that used to be attributed to souls and vital factors are now thought of in terms of systems properties, patterns of information, emergent organizing principles, or *organizing fields* (my emphasis)... the concept of morphic fields [and morphic resonance]... represents an attempt to understand such organizing fields in an evolutionary spirit. (Ibid pp. 69)

He proposes that morphic fields work through a kind of memory of previous forms that he calls ‘the presence of the past’, and that formative causation depends on a kind of resonance with like past forms called morphic resonance. But,

Unlike other forms of resonance, morphic resonance does not involve a transfer of energy from one system to another, but rather a non-energetic transfer of information. However, morphic resonance does resemble other known kinds of resonance in that it takes place on the basis of rhythmic patterns of activity. (Ibid, pp. 108)

Sheldrake has done a substantial amount of quality peer reviewed scientific research, and proposed experiments that others have done to test his hypothesis. The results have been encouraging, but politically the modernist scientific paradigm, despite the mounting evidence, has yet to accept his views. This is evidenced by the recent controversy over the removal of a video, hosted on a popular website, of his talk on formative causation, for being ‘unscientific’. The widespread anger this provoked among the generally modernist commentariat may indicate a turning of the tide, a moment of that “Jung called enantiodromia whereby we become what we hate” (Morin, 1999 pp. xxxviii) through an *extreme action*, of denial (of formative causation in this case) that heralds the enactment of its opposite—acceptance of formative causation. (Winton, 2013)

While Sheldrake’s fields of morphic resonance are a very good fit for our naturalistic means of *formal* causation, interestingly he does not speculate as to how they work other than to say they are non-energetic. We, however, can locate morphic fields in the nondual, intransitive domain where every pattern of organization would subsist in ‘superposition’ (similar to the superposition prescribed in quantum theory) in non-

locality/non-temporality. In that way, the organizing patterns of the universe could be seen as holographic in nature in that the sum total of all the organizing patterns of the universe subsists in each of its parts. Also, the ‘presence of the past’ informing the *persistence* and *evolution* of these forms would subsist in the telescoping of time in non-temporality. Morphic resonance, the interference patterns that contain the ‘in-form-ation’ of semiotic processes that create the forms, could be located in the *actual* domain and the things themselves in the *empirical* domain where they would *exist* empirically. Wherever there is form, then, there is ‘in-form-ation’. This implies semiotic in that there must be an interpretation/signification for parts to come into *organized* wholes rather than entropic randomness.

Conclusion

Our original purpose was driven by the pragmatic identification of an ‘absence’ within modernity that is causing a destructive pathology within the development of Planetary Civilization. That absence is hypothesized as the lack of a cosmology that demonstrates a place and a belonging in the universe in a way that is convincing and meaningful within the rational paradigm of modernity.

Through an examination and integration of components of a range of thinkers we have constructed the outlines of a pragmatasist, naturalistically orientated, nondual, realist, integrative semiotic cosmology. The aim is to provide a *Grand Story* that has the capacity to unify, while respecting the diversity of, the major worldviews. This will only happen if that story can be interpreted in such a way that allows each worldview to find ultimate meaning that is not exclusive of the way any of the others do the same.

In constructing our cosmology we have preserved Wilber's post-metaphysical relationship between epistemology, methodology and ontology and Esbjorn-Hargens' derivative 'enactive' paradigm; embedded Bhaskar's realist approach to ontological depth; and prioritized Morin's view on *Method*. The centrality of signification via method to nonduality is then extended and the notion of Semiotic Enactment is further enhanced with C. S. Peirce's semiotic philosophy to develop a mechanism termed integral Semiotic Realism. Suitable material and efficient causes are derived from the concept of energy as the primal emergent from the Big Bang; Salthe's cosmological proposition on the 2nd Law of Thermodynamics is inverted and the related 4th Law is substituted as a source of final causes; and, lastly, Sheldrake's work on formative causation via morphic resonance is instituted as a means of formal causes.

If it is not suitable in itself, the story located within this constellation of views can at least provide the basis for a conversation about constructing a viable integrative cosmology. A cosmology that can meet the requirement that it be interpreted in a way that is not mutually exclusive, so as to be significant as a source of ultimate concern, for traditional, modern, and integral worldviews alike. The hope is that Moderns will accept it by virtue of its rational, naturalistic conceptions, approach to a limited—but powerful—scope for spirituality within IRS, and the signification of nondual Realization as the ultimate category.

I think traditional religious worldviews will be satisfied that modernity is accepting of 'something greater than itself'—some sort of cosmological ultimate meaning, even if this *rational* approach to ultimate meaning is not instantiated in their concept of God. Also, because it is not based on eliminative materialism, there should be enough scope to interpret, at least the possibility of, a broad conception of God by traditionally oriented people.

Integrals, on the other hand, arguably, will have to make the most substantial accommodation and *shift* the signification of the ultimate category from Spirit to The Real—to a universe pervaded not by *consciousness* but by *significance*. The hope here is that post-formal ways of being and the integral communities thereby formed can grasp the flexibility they possess to shift perspectives, as specified by the dynamism of iSR itself, and achieve a pragmatic outcome in service of the evolution of a better future.

Modernity, by its acceptance of nondual realization (and IRS within it) as the ultimate category and concern, would now share an ultimate bond and a renewed significance for integrals that allows, for them, a *realized* modernity to be *the meaning* of Planetary Civilization itself. The energy thwarted by the shadow and shame of being unavoidably implicated in the activities of modernity is liberated. The importance of engaging deeply with modernity takes on new meaning and allows integrals to dispatch with the current reluctance to ‘enable’ it as an inherently destructive manifestation. Working within modernity takes on a powerful new significance and normative force. By integrating the shadow of modernity, its ultimate gift to humanity and its ultimate promise, the *light* of reason, is liberated to generate its own maturity as the *realization* of an integral world.

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