

A Special Report from the Creator of the Juice Feasting System

WE ARE ALL FUKUSHIMA

An Integral Perspective on the
Meanings and Promises of Disaster

David Rainoshek, M.A.

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Introduction

WE ARE ALL BECOMING INCREASINGLY AWARE of the Fukushima-Daiichi nuclear power plant disaster in Japan. Fukushima, 40 years old, is among the largest nuclear facilities in the world. It was designed by General Electric and built by GE and Tokyo Electric Power Co (TEPCO) on the Ring of Fire, one of the most seismically violent areas on the planet. In fact, it was built at the site of four notable earthquakes: the 7.2 magnitude Meiji Sanriku earthquake of 1896 which caused a 103-foot tsunami killing 22,000 people; and three magnitude 8.0-plus quakes in the Fukushima area in 1793, 1677 and 1611. On March 11, 2011 Japan suffered a record-breaking 9.0 earthquake off its eastern shore. A 46-foot tsunami easily overcame the 25-foot concrete retaining wall of Fukushima-Daiichi, taking out the power systems, backup diesel generators and pumps at the nuclear facility, all of which are necessary to circulate waters to keep cool the six massive reactors and the seven pools of approximately 600,000 spent nuclear fuel rods.

Today I am going to present *a series of perspectives* on how humanity has arrived at such a disastrous position, why we are all partially responsible (not just the Japanese, or G.E., or industrial contractors, or military personnel, or governments), and what this enormous event means: Fukushima is not just an exterior or physical meltdown event to be contained (entombed), but an interior cultural and personal crisis which provides an opportunity for evolutionary development and healing both individually and globally.

In short, Fukushima is arising as both a disaster area, and potentially as hallowed sacred ground, should we choose to treat it as such.

In light of the transformational potential of disaster, over the coming weeks I will issue articles addressing Integral Life Practices that we can cultivate to heal and transform our individual and collective pathologies which have led to events beyond Fukushima, such as economic chaos, ecological crises, rampant

health challenges, religious and cultural wars, and more. These evolutionary, transformative Life Practices will be physical, dietary, mental, emotional, spiritual, interpersonal, economic, and ecological, and will contribute to a depth of meaning and human expression worthy of our continued existence and evolution.

This is What the Fit Hitting the Shan Looks Like

Three reactor facilities are in active meltdown. In the initial days of the crisis they were cooled with ocean water, leading to hydrogen explosions that blew the tops off the buildings housing the reactors and spent nuclear fuel pools. These were the last events the mainstream media saw fit to talk about at great length, no doubt due to the Hollywood pyrotechnic appeal.

Four reactors remain in critical condition, including Reactor #3 containing plutonium-uranium MOX fuel, *one of the most toxic substances known to living beings*, acquired from decommissioned nuclear weapons. “According to the Nuclear Information Resource Center (NIRS), this plutonium-uranium fuel mixture is far more dangerous than typical enriched uranium—a single milligram (mg) of MOX is as deadly as 2,000,000 mg of normal enriched uranium.”

http://www.naturalnews.com/031736_plutonium_enriched_uranium.html

Hundreds of thousands of spent nuclear fuel rods have heated up, boiled off water, and have at times lit on fire releasing radiation directly into the atmosphere. Attempts to fly helicopters overhead and drop water on the reactors and fuel pools failed. Fire engines sprayed water on the reactors, with limited success.

“The New York Times, citing a former engineer with General Electric, which designed the reactors at Fukushima, estimates that 57,000 pounds of salt have accumulated in Reactor No. 1 and 99,000 pounds in Reactors No. 2 and 3, due to the evaporation of saltwater used during the early days of the crisis.”

<http://ecocentric.blogs.time.com/2011/03/24/fukushima-the-salt-problem>

The salt has rendered the reactors unsalvageable, not to mention the caking of salt on the fuel rods, effectively insulating them from cooling waters and increasing the chance and rate of further meltdown.

Reactors 1, 2, and 3 are all in partial meltdown at levels of 70%, 30%, and 25%, respectively.

<http://newsinfo.inquirer.net/inquirerheadlines/nation/view/20110408-330002/State-of-stricken-Fukushima-Dai-ichi-nuclear-reactors>

Radioactive isotopes of cesium, iodine, xenon, and others are showing up in the northern hemisphere in rainwater and physical surfaces. Radioactive Iodine-131 has been detected in rainwater captured in Berkeley, California and Vancouver, Canada at levels 300 times the legal limit set by the U.S. for drinking water. Shockingly, many of the U.S. EPA monitoring stations for radiation have been found in disrepair and Canadian authorities have taken their monitoring stations off-line until further notice.

http://www.hc-sc.gc.ca/hc-ps/ed-ud/respond/nuclea/_data/nrcan-rncan-eng.php

Dr John Price, former member of the Safety Policy Unit at the UK's National Nuclear Corporation has remarked, "radiation leaks will continue... take 50 to 100 years before the nuclear fuelrods have cooled enough to be removed."

<http://www.abc.net.au/news/stories/2011/04/01/3179487.htm>

Radiation at Fukushima Daiichi unit 1 has risen from 30Sv on APRIL 7th to 100Sv on APRIL 8th. This is an escalation of the periodic chain reactions Arnie Gunderson has been referring to at reactor 1.

<http://www.fairewinds.com/content/newly-released-tepcos-data-provides-evidence-periodic-chain-reaction-fukushima-unit-1>

Despite increasing levels of detected radiation and a worsening crisis, governments and industry maintain that we should not be concerned.

Among the absurdly unconcerned is nuclear power proponent and US President Barack Obama, who has found a trip to Brazil, professional sports, and war in Libya more compelling than the meltdown of one of the world's largest nuclear facilities—with its releases of radioactivity entering the air currents which affect some of the largest population and agricultural areas of the United States. In a move reminiscent of George Bush's admonition to keep shopping post-9-11, President Obama has told Americans not to prepare for fallout.

http://www.naturalnews.com/031735_Obama_radioactive_fallout.html

The world's largest concrete pump—the same kind used at Chernobyl - is heading to Japan on the world's largest cargo plane, a Russian-made Antonov 225, for use when TEPCO and associated government and industrial partners decide how to engineer the possible entombment of Fukushima, which after completion will render the concrete pump so radioactive as to be unusable for any future projects.

<http://chronicle.augusta.com/latest-news/2011-03-31/srs-concrete-pump-heading-japan-nuclear-site>

On April 4, 2011 TEPCO announced that they would be voluntarily releasing over 2 million gallons of radioactive water from Fukushima directly into the ocean, possibly threatening one of the world's largest fishing economies: Alaska.

http://www.naturalnews.com/031978_radioactive_water_Japan.html

On April 5, 2011 TEPCO has revealed that the two reactors considered stable in this disaster, #5 and #6, have suffered flooding of seawater that could disable the electrical and pump systems necessary to keep the reactors cool.

<http://www.youtube.com/watch?v=-W7uGvW8xvY>

On April 7, 2011, The International Atomic Energy Agency (IAEA) confirmed that a 7.1 magnitude earthquake occurred in Japan at 14:32 UTC. The epicenter of the earthquake was just 20 km from the Onagawa nuclear power plant and approximately 120 km from the Fukushima Daiichi and Daini nuclear power

plants. The Onagawa facility lost power to 2 of its 3 reactors in the aftershock, relying on backup diesel generators for maintenance of the facility.

As of April 9, there have been over *900 aftershocks* around Japan since the **2011 Tōhoku earthquake and tsunami on March 11, 2011, and 60 have been greater than magnitude 6.0.**

http://en.wikipedia.org/wiki/2011_T%C5%8Dhoku_earthquake_and_tsunami

Continued Updates

For a more detailed history of the Fukushima meltdown to-date, see:

- http://en.wikipedia.org/wiki/Fukushima_I_nuclear_accidents

Also, keep your eyes out for reports by:

- Arnie Gundersen, an energy advisor with 39-years of nuclear power engineering experience. A former nuclear industry senior vice president. See his video updates here: <http://www.fairewinds.com/multimedia>
- Mike Adams, The Health Ranger, at www.NaturalNews.com

On April 11, 2011, the Fukushima incident was officially declared as bad, or worse, than Chernobyl by officials: “The Japanese government’s nuclear safety agency has decided to raise the crisis level of the Fukushima Daiichi power plant accident from 5 to 7, the worst on the international scale. The Nuclear and Industrial Safety Agency made the decision on Monday. It says the damaged facilities have been releasing a massive amount of radioactive substances, which are posing a threat to human health and the environment over a wide area. ... Level 7 has formerly only been applied to the Chernobyl accident in the former Soviet Union in 1986.”

<http://enenews.com/japan-officially-raises-fukushima-to-level-7-same-as-chernobyl-translation>

Finally, this crisis in an intensely seismically active zone has just begun—and the cleanup is going to dwarf that of Chernobyl. For perspective, watch the documentary “The True Battle of Chernobyl” (<http://video.google.com/videoplay?docid=-5384001427276447319#>) The Chernobyl crisis required over 600,000 people to get things (one reactor, not three or four as we have at Fukushima) under control to prevent it from rendering large parts of Europe uninhabitable. **For a size comparison between Chernobyl and Fukushima, consider this:** “The amount of nuclear fuel present at Chernobyl during the 1986 accident is reported as about 180 tons, none of which contained plutonium, an element much more toxic than the uranium used in standard reactor fuel. **Estimates of the amount of nuclear fuel present at Fukushima are roughly in the 2000 ton range, dwarfing Chernobyl.**” (<http://malu-aina.org/?p=618>)

The Tempting Mottram Mantram

Physicist Dr. Michio Kaku has stated in his most recent blog, “The situation at Fukushima is relatively stable now, in the same way that you are stable if you hang by your fingernails off a cliff, and your fingernails begin to break one by one...” (<http://bigthink.com/ideas/37705>)

As this point, I would not blame you if, as you have been contemplating what this means for the continuation of life on earth, you are feeling like Richard Mottram, “We’re all fucked. I’m fucked. You’re fucked. The whole department is fucked. It’s the biggest cock-up ever. We’re all completely fucked.”

But the Mottram mantram—although strangely suitable (and even healthy to acknowledge) is a very partial or limited view. We are not going to leave it at that. We are bravely going to cultivate more perspectives on this situation, because the times, numerous future generations, and our own individual and collective evolution are calling us to grow up and leap to the next stage in our development.

Where does the Problem of Fukushima Exist?

One of the big questions being asked is “What needs to be done to cool the Fukushima plant and contain the radiation?”—as if all there is to Fukushima is an engineering fix to avert nuclear disaster. But the scope of Fukushima crisis is much larger than the site itself; it stretches back through time and into the future, across cultures, and is a product of individual human consciousness.

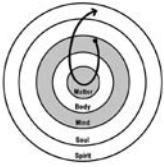
If we can *fully* answer the question, “*Where* does the problem of Fukushima exist?” by holding multiple partial but true perspectives and heroically transforming into *new ways of being*, then, I believe, we can have Fukushima—and the threat of future industrial apocalypses—resolved. Regardless of the Bushian approach of Barack Obama (see this video: <http://www.youtube.com/watch?v=lpAqiGSp29c>) and multiple industries and governments telling you to not worry and go about your business, Fukushima is the responsibility of us all.

To answer the question, we are going to use a variety of lenses, or ways of looking, that have been developed into a map of the Kosmos by Ken Wilber, one of the most widely read and influential American philosophers of our time.

This map is called Integral: it is a means of honoring and incorporating as many partially true perspectives as we can into a useful framework to hold a wider, deeper, more meaningful embrace of anything—even the meltdown of Fukushima. Ken’s work on Integral has been used to make sense of multiple views in psychology, philosophy, anthropology, religion, spirituality, physical science, law, medicine, economics, politics, and ecology, to name a few. (You can find Ken Wilber’s work at www.IntegralLife.com and www.KenWilber.com and a good introduction can be found in his books *A Theory of Everything* and *A Brief History of Everything*, and online here:

<http://integrallife.com/aqal/integral-operating-system-introduction>

For getting our heads (and hearts) around Fukushima, we are going to use three Integral lenses—or perspectives for looking at any given situation - used by Ken Wilber:



1. The Great Chain of Being: A developmental hierarchy reaching from *Matter to Body to Mind to Soul to Spirit*. The Great Chain is one of the most enduring truths recognized by the world’s wisdom traditions. It is also known as the Perennial Philosophy.



2. Quadrants: a map of four areas illustrating the importance of honoring the interior and exterior of an individual (mind and body), and the interior and exterior of a group (culture and systems). Leave one out, and we find breakdown and pathology. Honor each as they arise in any situation, and we have a greater chance at health and wholeness.



3. Worldview and Values Development: The fundamental stages of how we fundamentally see and participate in the world, as expressed in the growth of one’s individual awareness; and also in socio-cultural groups over the course of human history. This is one of the most fascinating and useful aspects of Integral, and it will be presented and used in depth vis-à-vis Fukushima.

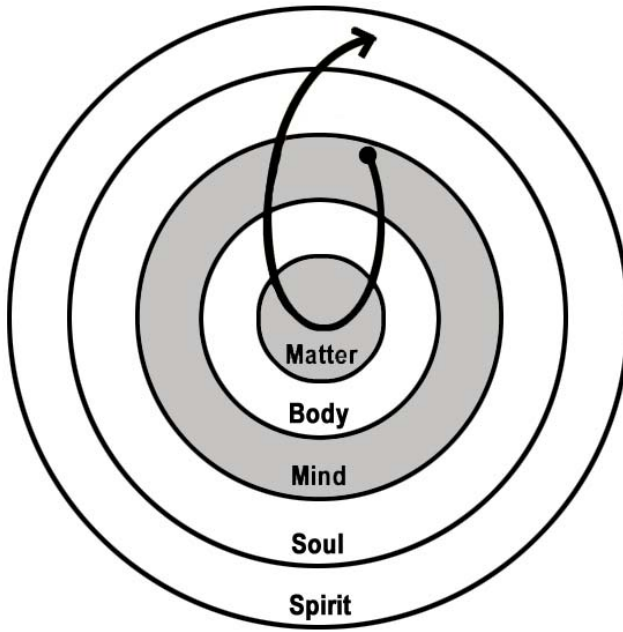
Part 1: The Great Chain of Being

*“The Greeks had a beautiful word, Kosmos, which means the patterned whole of all existence, including the physical, emotional, mental, and spiritual realms. Ultimate reality was not merely the cosmos, or the physical dimension, but the Kosmos, or the physical and emotional and mental and spiritual dimensions altogether. Not just matter, lifeless and insentient, but the living Totality of matter, body, mind, soul, and spirit. The Kosmos!—now there is a real theory of everything. **But us poor moderns have reduced the Kosmos to the cosmos, we have reduced matter and body and mind and soul and spirit to nothing but matter alone ... in this drab and dreary world of scientific materialism...** An integral vision attempts to include matter, body, mind, soul, and spirit as they appear in self, culture, and nature.”—Ken Wilber, A Theory of Everything*

Fukushima has arisen because we have created a Culture of Dissociation, or a leaving out of important, fundamental aspects of the Kosmos that are integral parts of our being and knowing. This is clear when we look at what is known as The Great Chain of Being, a developmental hierarchy from Matter to Body to Mind to Soul to Spirit.

According to comparative religion authority Huston Smith, this view of development is held by virtually all of the world’s great wisdom traditions. Ken Wilber writes in *The Marriage of Sense and Soul*, “As Arthur Lovejoy abundantly demonstrated in his classic treatise on the Great Chain, this view of reality has in fact ‘been the dominant official philosophy of the larger part of civilized humankind through most of history.’”

The development of the Kosmos from Matter to Body to Mind to Soul to Spirit is one in which “lower” levels are transcended and included in “higher” levels of being and knowing. Wilber explains that the Great Chain is actually more aptly described as a Great Nest, like nested Russian dolls. It is a *developmental hierarchy*, and looks like this:



The Great Chain, or Nest of Spirit, and The Curative Spiral

As we move through a developmental hierarchy, there is a good news, bad news reality known as the *Dialectic of Progress*. Wilber explains, “As consciousness evolves and unfolds, each stage solves or defuses certain problems of the previous state, but adds new and recalcitrant—and sometimes more difficult—problems of its own... Dogs get cancer; atoms don’t. But this doesn’t damn evolution altogether! It means evolution is good news, bad news, this dialectic of progress. And the more stages of evolution there are—the greater the depth of the Kosmos—the more things that *can* go wrong.”

Simply put, as things get better, or more complex, the opportunity for things to go amazingly right co-arises with the opportunity for things to go deeply wrong. A Porsche has many more capabilities than a tricycle for example, yet it also has a much higher chance of breaking down and needing maintenance to continue functioning at a high level. In the same way, your body is able to do and achieve much more than a rock, and needs more care and attention in order for it to run smoothly and maintain a state of health. Your body can create flexibility, beauty, glowing skin, states of bliss, pleasurable sensations,

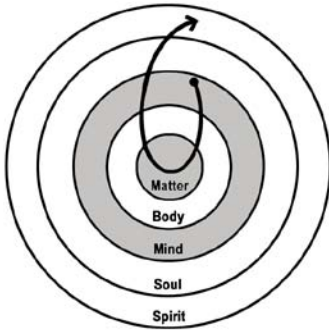
co-create a new human body, etc. while also being capable of creating cancer, MS, fatigue, diabetes, arthritis, etc. It is good news, bad news, all the way up.

And one of the things that can go wrong is that higher levels of being, such as the human mind, can dissociate from lower realities (one's body, or the biosphere), ignoring them or marginalizing them in a rational or emotional zeal after some goal, **such as creating a nuclear power station with spent nuclear weapons on the Ring of Fire to power an island of 135 million people.**

But this is not the only dissociation of our times. Eating processed food is a dissociation of mind from matter and body. So is the use of pharmaceuticals. Modern agribusiness is a dissociation of mind and body from matter (you can't keep mining and poisoning the soil and expect to maintain a healthy body or mind). Even many of us who actualize our souls in love and compassion for other beings often forget to take care of our bodies. Dissociations from lower levels of our being and knowing abound in our lives. Fukushima is a result of a particularly heinous **Culture of Dissociation** that needs healing in ourselves, and the industries and organizations we create.

It is imperative to recognize that when we destroy or ignore the biosphere—the earth - we are not harming something *external to ourselves*. **We contain the biosphere—it is an integral part of who we are. The earth—the biosphere—is alive (or dying) in our very own being. Fukushima is melting down in the lower aspects of your very being. It is interior to us.** This is how developmental hierarchies work. Take away or destroy a lower level (the biosphere), and higher levels (your body and mind) disappear. **If the earth goes or is made uninhabitable, we go.** We can't dissociate and think we can simply throw the things we don't like away any more (such as radiologically tainted water from Fukushima, or our plastic Tupperware, or last month's shoes). ***Away has gone away once we realize "away" is interior to our very own being.***

The Curative Spiral



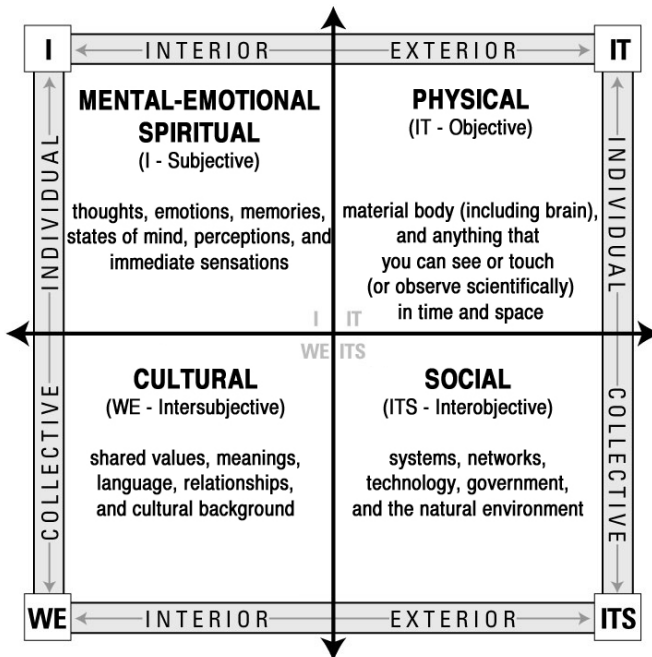
In the Great Chain, or Nest of Being graphic, you see a curve - what Ken Wilber has called The Curative Spiral. Our higher levels of being and knowing need make a return visit to a full embrace of the more fundamental aspects of ourselves (the physiosphere, the biosphere, our own bodies) and then can move forward with activities *informed by* a fuller appreciation of our being, integrated and whole, not dissociated and pathological.

In concert with Life Practices supporting an integrated Curative Spiral (to be presented in future articles) is a deep recognition that we are in service to The Great Chain of Being unfolding—unimpeded and healthy—for as many beings as possible. Ken Wilber calls this ***the Basic Moral Imperative: the greatest depth of development for the greatest span (or number) of beings.*** An actualization of the Basic Moral Imperative includes thinking of all beings present and future in our ways of being.

Dissociations such as Fukushima (and their disastrous outcomes) are a threat to healthy development and a disregard for the Basic Moral Imperative. Starting with ourselves first, and then influencing public policy, **the Dissociative Age must close**, an Integrated personal and global culture is due. Understanding the Great Chain of Being as a fundamental truth is essential in an Integral evolutionary culture.

Part 2: To Be Honored, Not Ignored - Quadrants of the Kosmos

In his 1995 magnum opus, *Sex Ecology Spirituality*, Ken Wilber realized among all the developmental models he was considering in psychology, philosophy, spirituality, ecology, biology, culture, group modes of production, economics, politics (among numerous others), that they all fit in four fundamental dimensions of the Kosmos: the interior and exterior of the individual and the collective. It looks like this:



The four quadrants. Adapted from Integral Life Practice by Ken Wilber et al.

Okay, *breathe*. These quadrants are part of your ordinary awareness right now, every day—so for those of you who aren't so big on maps and graphs, we are going to dance with this one easily and relate it directly—and very usefully - to understanding Fukushima much, much better.

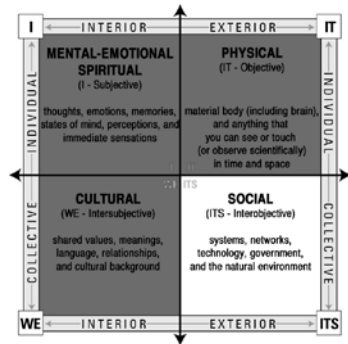
INTERIORS ON THE LEFT: The two squares on the left are interiors—things you can't see from the outside. You have to ask someone about them and are depending on a certain amount of *truthfulness*. For the interior of an individual (the Upper Left quadrant), this is one's thoughts, emotions, states of mind, spiritual development, morals, memories. This is the domain of psychology, philosophy, and spirituality. For the interior of a group (the Lower Left quadrant), we are speaking of culture (shared values and meanings). This is the domain of anthropology, but we experience it as the shared meaning of food, religion, family, land, music, clothing, art... There is a local significance that has developed in any culture around these things, and that is represented by the Lower Left quadrant: Culture.

EXTERIORS ON THE RIGHT: The right two squares deal with exteriors—truths you can observe and verify easily about one's person or the environment. The exterior of an individual (the Upper-Right quadrant) is one's own body, and the developmental progression of physical and biological elements that were required to create it. This is the domain of physics, biology, and medical practices working with the body. The exterior of a group (the Lower-Right quadrant) is the systems we create together. This is the domain of food production, energy production, economic systems, ecological systems, computer systems, political systems, etc.

In the last 300 years, humanity has gradually shifted its attention away from intangible interiors, in favor of more tangible exteriors. Both interiors and exteriors are fine, but we have *reduced* much of the Kosmos to exteriors: science and systems. This is the Fukushima crisis: *reductionism* of the Kosmos to whatever external system science can devise to create electrical power. The culture of deception around safety in designing and operating Fukushima over the last 40 years has been in reckless ignorance of the threat Fukushima poses to interior depth; to individual and cultural development and meaning should it melt down.

Let's run through the quadrants now, using them as lenses to view Fukushima to further answer the question, "Where does the problem of Fukushima exist?"

External-Environment and External- Techno/Economic Systems (Lower-Right Quadrant)



Fukushima exists externally in the environment: Radioactive plumes and waters are moving across and polluting our biosphere locally and internationally from the nuclear facility. The plant sits precariously on a seismically active zone called the Ring of Fire, where four known seismic events of magnitude 8 or greater have happened in the last 300 years. It contains enough radiological material to impact every human being on the planet if it

continues to spiral out of control. The plant needs to be cooled and contained.

This is the perspective that will be most widely reported by the mainstream media: an external system has gone awry, and professionals will take care of it. **Holding just this perspective, is natural to feel small and afraid—a child facing external circumstances that are beyond us. But the Kosmos is far more dynamic than that, so let's cultivate a larger embrace more of it.**

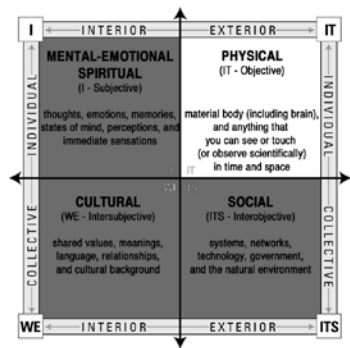
Fukushima is an external crisis of techno-economic corporate structure that controls national and international politics: It is for someone else (the responsible parties) to fix. This is the domain of the scientist, the ecologist, the politicians, the industrialists who created Fukushima. It is *their problem*. They created it. And this is *partially true*.

Huge, dangerous nuclear reactors with some of the most deadly compounds known were placed on the Ring of Fire. A culture of deception and ignorance around safety issues has existed around this facility throughout its history.

The facilities were old and poorly designed. Criminally insufficient disaster preparedness was in play. To date, data on the severity of the crisis has been withheld, disclosure of data has been delayed, the danger—and potential danger - to human beings in the local area and abroad has been downplayed.

This is upsetting, but each of us supports this structure—we collectively create it, despite what evil machinations may, or may not be, at work at high levels. You want upgraded, more evolved structures of technology, industry, politics, ecology, agriculture? Then *we need to do some interior work on healing our own dissociations, and getting clear on what we are about.* This is the domain of the Upper-Left quadrant, which we will talk about momentarily.

External-Individual/Physical (Upper-Right Quadrant)



Fukushima is an external crisis for bodies:

The releases into the environment of multiple, long-lasting radioactive elements is a potential disaster for biological bodies, which do not respond well to such disorganizing elements as disintegrating nuclear waste. This is a concern for one’s own body; the bodies of those you are in relationship with (especially children who are still growing); the bodies and unique and precious DNA sequences of peoples such as the

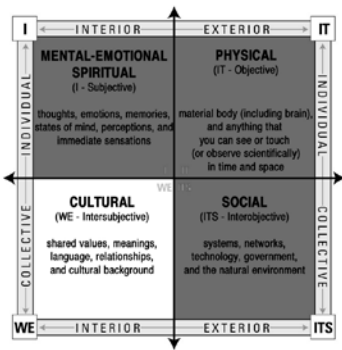
Japanese; the bodies of wildlife that help maintain biodiversity and the continuation of life; the bodies of animals raised and/or harvested for food; and the bodies of all living beings in the foreseeable future.

It is important to remember that while this nuclear threat to bodies is concerning, we can see with the Great Chain of Being that many of us have already dissociated from our bodies. We have done much damage through neglect and dissociation, a lack of care and concern for our bodies and those of other beings. **From this perspective, Fukushima is an opportunity to integrate the presence, integrity, and development of all bodies into the deep meaning and purpose of our lives.** From this physical perspective, we are called to encourage healthy *agriculture*; the eating of whole foods,

superfoods and superherbs; cleansing; exercise; the protection of water and the environment; and life-affirming, body-affirming technologies that keep future bodies in mind, as well.

That brings us to the interior quadrants—or what technology, industry, politics, etc. should *be in service to, instead of in denial of...*

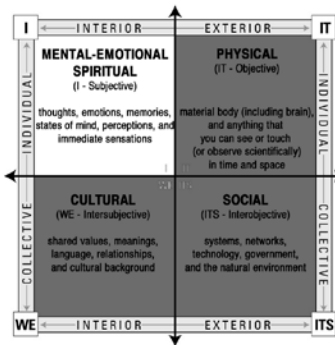
Internal-Culture/Meaning (Lower-Left Quadrant)



Fukushima is an interior crisis of culture: In our zeal for levels of cultural expression and meaning supported by rational science and technology, we have collectively dissociated from important and meaningful aspects of the Kosmos that support culture, such as a connection with and regard for the biosphere. A culturally held worldview of scientific materialism developed (life is made better by having as much technology as possible: iphone,

ipod, ipad, laptop, satellite HD, internet, pharmaceuticals, automobiles, etc.) to such an extent that we dissociated from the more fundamental aspects of The Great Chain of Being: the biosphere and our own bodies. *Agriculture* has been superseded by *agribusiness*. **Fukushima was a product of a culture that valued and sought the advances of scientific materialism so much that it ignored the potential threat to the very culture that created it.** We will return to evolutionary worldview and values development, the arising of scientific materialism, and the pathological emergent of technologies such as nuclear power in the next major section on values and worldviews.

Internal-Individual/Consciousness (Upper-Left Quadrant)



Fukushima is an interior crisis of human consciousness: This is the genesis of the whole Fukushima incident: our own human consciousness. Remember the Dialectic of Progress from earlier? It is good news, bad news all the way up the Great Chain of Being. The human mind has immense capacities for creation and realization, and also for dissociation and pathology.

Therefore, a partial truth is that we ourselves are responsible—we **each contain the seeds of Fukushima in ourselves, in our way of living past and present.** We each have cultivated our minds as a means to escape or dissociate from the earth, from our bodies, from other people, even from the prospect of change and death itself (technology is in part an attempt to escape, or put off, suffering and death). We have used technology—such as nuclear power—to enable ourselves to shift the responsibility, for our living and being and needing resources, to somewhere or someone else. A certain delegation and specialization of responsibilities has been very valuable in our pursuance of other avenues of expression (art, literature, poetry, better governance, other innovative technologies). **But the concentration and size of some technologies and responsibilities has become unmanageably large and disastrous. We have dissociated from the fundamentals (energy, food, water, ecology, health) as far as we can go.** It has become so obvious, hasn't it? Our food is mass-produced and devoid of nutrients (or downright harmful); the ecology is being destroyed to create products; our water is owned by multinationals, is polluted by industries and chemically enhanced with fluoride and chlorine; we have sat at computers and teevees and traffic jams and restaurants for so long our health has stagnated and taken a serious dive. One out of three children born in the U.S. today will develop diabetes, and by 2030 over 75% of the U.S. populace will be overweight or obese. We spend more on health care (read: sick care) than we do on foods that would keep us well. **These are Fukushima-quality dissociations at work. If we**

want these externals to change, our interiors need to evolve (this is the topic of the next section: worldviews and values).

Think about the rise of organic food over the last 50 years. The external presence of more organic food followed an *interior recognition* in enough people that industrial toxins were not acceptable—we wanted whole foods and whole, healthy bodies. Other externals such as women’s rights, equality in the workplace, civil rights, the environmental movement—all arose because of *interior development of our perspectives and values*.

Fukushima: A Sign of Evolution or Devolution?

In the last century humanity has witnessed Auschwitz, the use of atomic weapons, numerous wars, environmental degradation, decreases in soil fertility and compromised nutrient profiles in foods, economic depressions and recession, a seeming loss of integrity and innocence, and now disasters like the Deepwater Horizon spill in the Gulf of Mexico and the Fukushima-Daiichi plant in Japan. It is tempting to wish for a former time, to romanticize about a *better* time, when we did not have the problems—the incredibly *destructive pathologies* that have emerged at this time. Surely these events are evidence that evolution is not happening for human beings, that we need to turn the clock back. Fukushima is a major case in point, right?

But we cannot go back in time, and to think that we have continuously devolved over the last 100 or 1,000 or 5,000 or 100,000 years is both a self-hatred and a contempt for our ancestors that is itself as radioactive and destructive to the human soul as plutonium-238 is to the bodies of all living beings.

In this last section, I will show that even Fukushima is an evolutionary emergent of human consciousness. Granted, it is a pathological evolutionary emergent, but a sign of growth and greater capacities nonetheless. Pathologies are not something to reverse by romantically regressing back in time. Pathologies—such as Fukushima - are parts of our very own selves to heal individually and collectively, through insight and evolution, beyond into even greater capacities.

Part 3: Worldview and Values Development

I am at pains to present this section, because for myself and those I work with, **we have found that what follows is among the most fascinating, insightful, and useful developmental models Ken Wilber has used in Integral Theory.** Developmental researchers Clare Graves, Don Beck, Chris Cowan, and Jean Gebser, have invested decades looking at the evolution of worldviews and values of individuals and whole societies. What these models show is that human beings—individually and collectively—evolve through identifiable stages that are consistently seen in persons and cultures worldwide.

We can place Fukushima, and the values and worldview that created it, in an evolutionary perspective, thus saving ourselves the trouble of pining for a better human epoch in the near or distant past. This evolutionary perspective will also ground us more healthily in the present, and keep our eyes—and our Life Practices—set on humanity's *continued evolution* (hopefully without such grave pathological dissociations as those that created Fukushima-Daiichi).

There are two parallel models or perspectives of evolutionary development we are going to use:

1. A values developmental model called Spiral Dynamics (Clare Graves, Don Beck, Chris Cowan); and
2. A worldviews developmental model by researcher Jean Gebser.



You can find a more exciting graphic of Spiral Dynamics here: http://eric-blue.com/wp-content/uploads/2009/05/spiral_dynamics_model.jpg and another great model of it here: http://farm3.static.flickr.com/2525/3921525724_45e1c4c9e0_o.png

You can also see the Spiral Dynamics site with Don Beck here:

<http://www.spiraldynamics.net/about-spiral-dynamics-integral.html>

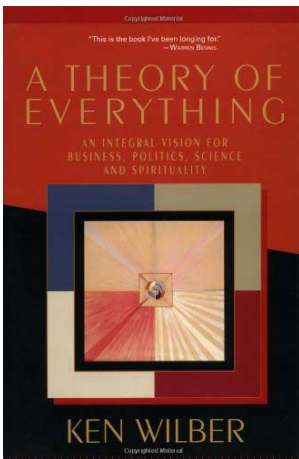
The stages you are seeing from bottom to top are stages of your own worldview and values development as they have unfolded over your lifetime, and that of human culture over many thousands of years to the present. Both individuals and cultures have a *center of gravity* where they find themselves most of the

time, and in healthy development we include the benefits and transcend the limitations of previous stages. We grow into more evolved stages, discovering greater capacities and remember, because of the Dialectic of Progress, it is good news and bad news all the way up.

We are going to get an excellent understanding of this developmental unfolding (what Wilber has called “the psychological equivalent of the human genome project”) with excerpts from chapter 1, “The Amazing Spiral,” in *A Theory of Everything* by Ken Wilber (presented below). Afterwards, we will look at how these interior waves or stages of development in both yourself and humanity at large have created Fukushima, and what the territory ahead can look like.

Excerpts from “The Waves of Existence,” chapter 1: *A Theory of Everything* by Ken Wilber

Developmental psychology is the study of the growth and development of the mind—the study of interior development and consciousness evolution.



One of the striking things about the present state of developmental studies is how similar, in broad outline, most of its models are. Indeed, in *Integral Psychology* I assembled the conclusions of over one hundred different researchers, and, as one of them summarized the situation, “The stage sequences [of all those theorists] can be aligned across a common developmental space. The harmony of alignment shown suggest a possible reconciliation of [these] theories...”

(*Higher Stages of Human Development*, by F. Richards and M. Commons in Alexander et al.; page 160.)

From Clare Graves to Abraham Maslow; from Deirdre Kramer to Jan Sinnott; from Jurgen Habermas to Cheryl Armon; from Kurt Fischer to Jenny Wade; from Robert Kegan to Susanne Cook-Greuter, **there emerges a remarkably consistent story of the evolution of consciousness ... they all tell a generally similar tale of the growth and development of the mind as a series of unfolding stages or waves...**

Let me give one of them as an example. The model is called **Spiral Dynamics**, based on the pioneering work of Clare Graves. Graves proposed a profound and elegant system of human development, which subsequent research has validated and refined, not refuted.

Briefly, what I am proposing is that **the psychology of the mature human being is an unfolding, emergent, oscillating spiraling process marked by progressive subordination of older, lower-order behavior systems to newer, higher-order systems as an individual's existential problems change.** Each successive wave, or level of existence is a state through which people pass on their way to other states of being. When the human is centralized in one state of existence, he or she has a psychology which is particular to that state. His or her feelings, motivations, ethics and values, biochemistry, degree of neurological activation, learning system, belief systems, conception of mental health, ideas as to what mental illness is and how it should be treated, conceptions of preferences for management, education, economics, and political theory and practice are all appropriate to that state. ("Summary Statement: The Emergent, Cyclical, Double-Helix Model of the Adult Human Biopsychosocial Systems," by Clare Graves; Boston, 20 May 1981.)

Graves outlined around eight major "levels or waves of human existence," as we will see in a moment. **But it should be remembered that virtually all of these stage conceptions... are based on extensive amounts of research and data. These are not simply conceptual ideas and pet theories, but are grounded at every point in a considerable amount of carefully checked evidence. Many of the stage models,**

in fact, have been carefully checked in first-, second-, and third-world countries. The same is true with Graves model; to date, it has been tested in more than fifty thousand people from around the world, and there have been no major exceptions found to the general scheme.

Of course, this does not mean that any of these schemes gives the whole story, or even most of it. They are all simply partial snapshots of the great River of Life, and they are all useful when looking at the River from that particular angle. This does not prevent other pictures from being equally useful, nor does it mean that these pictures cannot be refined with further study. *What it does mean is that any attempt to understand humanity's struggle to reach an integral embrace ought to take these studies into account.*

The Human Consciousness Project

These studies, in fact, appear to be a crucial part of any genuine Theory of Everything. If we are going to include the physical, biological, psychological, and spiritual dimensions of existence, then this important research offers us a more generous overview of the many possibilities of the psychological dimension.

In a sense, this research is the psychological correlate of the Human Genome Project, which involves the scientific mapping of all the genes in human DNA...

We return, then, to Clare Grave's work, which has been carried forward and refined by Don Beck and Christopher Cowan in an approach they call **Spiral Dynamics**. Far from being mere armchair analysts, **Beck and Cowan were participants in the discussions that led to the end of apartheid in South Africa. The principles of Spiral Dynamics have been fruitfully used to reorganize businesses, revitalize townships, overhaul education systems, and defuse inner-city tensions.**

Spiral Dynamics sees human development as proceeding through eight general stages, which are also called *memes*.

"Meme" is a word that is used a lot nowadays, with many different and conflicting meanings—and many critics say the word has no meaning at all. But for Spiral Dynamics, a meme is simply *a basic stage of development that can be expressed in any activity* (we will see many examples as we proceed). Beck and Cowan affirm that memes (or stages) are not rigid levels but flowing waves, with much overlap and interweaving, resulting in a meshwork or dynamic spiral of consciousness unfolding. As Beck puts it, "The Spiral is messy, not symmetrical, with multiple admixtures rather than pure types. These are mosaics, meshes, and blends."

Beck and Cowan use various names and colors to refer to these different memes or waves of existence. The use of colors almost always puts people off, at first. But Beck and Cowan often work in racially charged areas, and they have found that it helps to take peoples' minds off skin color and focus on "the color of the meme" instead of the "color of the skin." **Moreover, as much research has continued to confirm, each and every individual has all these memes potentially available to them. And therefore the lines of social tension are completely redrawn: not based on skin color, economic class, or political clout, but on the type of meme a person is operating from.** In a particular situation it is no longer "black versus white," but perhaps blue versus purple, or orange versus green, and so on; and while skin color cannot be changed, consciousness can. As Beck puts it, **"The focus is not on types of people, but types in people."**

The first six levels are "subsistence levels" marked by "first-tier thinking." Then there occurs a revolutionary shift in consciousness: the emergence of "being levels" and "second-tier thinking," of which there are two major waves. Here is a brief description of all eight waves, the percentage of the world population at each wave, and the percentage of social power held by each.

Spiral Dynamics

the eight-stage spiral of development

www.formlessmountain.com

Credits:
Ken Wilber
Don Beck - Spiral Dynamics Integral

Turquoise - Holistic Self - no specific age
Collective Individualism - starting 30 years ago
Experience the wholeness of existence through mind and spirit.
Quest: peace in an incomprehensible world.
Method: deeper receptivity of multidimensional trans-rational perceptions...
Pitfalls: pathologies of the soul...

Yellow - Integral Self - no specific age
Worldcentric - starting 50 years ago
Live fully and responsibly as what you are and learn to become.
Quest: integral synthesis
Method: awaken maximum number of streams of evolution, integrate diversity with discernment...
Pitfalls: aborted self-actualization, existential angst, bad faith, etc.

Second Tier - Transpersonal - Being

////////// **RADICAL PHASE SHIFT** \\\\\\\\\\\

First Tier - Personal - Subsistence

Green - Sensitive Self - age 15–21 years
Social Democracies, informational - starting 150 years ago
Seek peace within the inner self and explore, the caring dimensions of community.
Quest: affectionate relations.
Method: appreciate diverse views, listen well, go for consensus, emphasize group needs...
Pitfalls: inauthenticity, deadening, excessive relativism, lack of discernment, interminable attempts at consensus...

Orange - Achiever Self - age 9–14 years
Capitalistic Democracies - starting 300 years ago
Act in your own self-interest by playing the game to win.
Quest: material pleasure.
Method: learn to excel, set goals, achieve, measure success...
Pitfalls: identity crisis, role confusions, consumerism, ecological crisis, workaholism, goal-fixation, over-attachment to successful methods...

Blue - Rule/Role Self - age 7–8 years. Later Mythic
Nation States, Authoritarian - starting 5,000 years ago
Life has meaning, direction, and purpose with predetermined outcomes.
Quest: ultimate peace.
Method: follow the given rules, don't exceed your role...
Pitfalls: archetypal role identification, script pathology, fundamentalism, fascism, etc.

Red - Impulsive Self - age 3–6 years. Early Mythic
Feudal & Exploitive Empire - starting 10,000 years ago
Be what you are and do what you want, regardless.
Quest: heroic status, power, glory.
Method: align with power, take what you need...
Pitfalls: anxiety, depression, phobias, excessive guilt, cannot build stable nations

Purple - Magic/Animistic Self - age 1–3 years.
Tribal Order - starting 50,000 years ago
Keep the spirits happy and the tribe's nest warm and safe.
Quest: safe mode of living.
Method: Petition to Gods or Powers with ritual...
Pitfalls: borderline, narcissism, omnipotent fantasy, animistic hallucinations, tribal conflicts

Beige - Instinctive Self - age 0–18 months
Survival Bands - starting 100,000 years ago
Do what you must to stay alive.
Quest: food, water, warmth, shelter
Methods: scavenge whatever you need...
Pitfalls: primitive developmental psycho-pathologies, autism

1. Beige: Archaic-Instinctual. The level of basic survival; food, water, warmth, sex, and safety have priority. Uses habits and instincts just to survive. Distinct self is barely awakened or sustained. Forms into *survival bands* to perpetuate life.

Where seen: First human societies, newborn infants, senile elderly, late-stage Alzheimer's victims, mentally ill street people, starving masses, shell shock. Approximately 0.1% of the adult population, 0% power.

2. Purple: Magical-Animistic. Thinking is animistic; magical spirits, good and bad, swarm the earth leaving blessings, curses, and spells which determine events. Forms into *ethnic tribes*. The spirits exist in ancestors and bond the tribe. Kinship and lineage establish political links. Sounds "holistic" but is actually atomistic: "there is a name for each bend in the river but no name for the river."

Where seen: Belief in voodoo-like curses, blood oaths, ancient grudges, good luck charms, family rituals, magical ethnic beliefs and superstitions; strong in Third-World settings, gangs, athletic teams, and corporate "tribes." 10% of the population, 1% of the power.

3. Red: Power Gods. First emergence of a self distinct from the tribe; powerful, impulsive, egocentric, heroic. Magical-mythic spirits, dragons, beasts, and powerful people. Archetypal gods and goddesses, powerful beings, forces to be reckoned with, both good and bad. Feudal lords protect underlings in exchange for obedience and labor. The basis of *feudal empires*—power and glory. The world is a jungle full of threats and predators. Conquers, out-foxes, and dominates; enjoys self to the fullest without regret or remorse; be here now.

Where seen: The "terrible twos," rebellious youth, frontier mentalities, feudal kingdoms, epic heroes, James Bond villains, gang leaders, soldiers of fortune, New-Age narcissism, wild rock stars, Atilla the Hun, *Lord of the Flies*. 20% of the population, 5% of the power.

4. Blue: Mythic Order. Life has meaning, direction, and purpose, with outcomes determined by an all-powerful Other or Order. **This righteous Order enforces a code of conduct based on absolutist and unvarying principles of "right" and "wrong."** Violating the code or rules has severe, perhaps everlasting repercussions. Following the code yields rewards for the faithful. *Basis of ancient nations. Rigid social hierarchies;* paternalistic; one right way and only one right way to think about everything. Law and order; impulsivity controlled through guilt; concrete-literal and fundamentalist belief; obedience to the rule of Order; strongly conventional and conformist. Often "religious" or "mythic" [in the mythic-membership sense; Graves and Beck refer to it as the "saintly/absolutistic" level], but can be secular or atheistic Order or Mission.

Where seen: Puritan America, Confucian China, Dickensian England, Singapore discipline, totalitarianism, codes of chivalry and honor, charitable good deeds, religious fundamentalism (e.g., Christian and Islamic), Boy and Girl Scouts, "moral majority," patriotism. 40% of the population, 30% of the power.

5. Orange: Scientific Achievement. At this wave, the self "escapes" from the "herd mentality" of blue, and seeks truth and meaning in individualistic terms—hypothetico-deductive, experimental, objective, mechanistic, operational—"scientific" in the typical sense. The world is a rational and well-oiled machine with natural laws that can be learned, mastered, and manipulated for one's own purposes. Highly achievement oriented, especially (in America) toward materialistic gains. **The laws of science rule politics, the economy, and human events. The world is a chess-board on which games are played as winners gain pre-eminence and perks over losers. Marketplace alliances; manipulate earth's resources for one's strategic gains. Basis of corporate states.**

Where seen: The Enlightenment, Ayn Rand's Atlas Shrugged, Wall Street, emerging middle classes around the world, cosmetics industry, trophy hunting, colonialism, the Cold War, fashion industry, materialism, secular humanism, liberal self-interest. 30% of the population, 50% of the power.

6. Green: The Sensitive Self. Communitarian, human bonding, ecological sensitivity, networking. **The human spirit must be freed from greed, dogma, and divisiveness; feelings and caring supersede cold rationality; cherishing of the earth, Gaia, life. Against hierarchy; establishes lateral bonding and linking. Permeable self, relational self, group intermeshing. Emphasis on dialogue, relationships. Basis of value communities** (i.e., freely chosen affiliations based on shared sentiments). Reaches decisions through reconciliation and consensus (downside: interminable "processing" and incapacity to reach decisions). Refresh spirituality, bring harmony, enrich human potential. Strongly egalitarian, anti-hierarchy, pluralistic values, social construction of reality, diversity, multiculturalism, relativistic value systems; this worldview is often called *pluralistic relativism*. Subjective, nonlinear thinking; shows a greater degree of affective warmth, sensitivity, and caring, for earth and all its inhabitants.

Where seen: Deep ecology, postmodernism, Netherlands idealism, Rogerian counseling, Canadian healthcare, humanistic psychology, liberation theology, cooperative inquiry, World Council of Churches, Greenpeace, animal rights, ecofeminism, post-colonialism, Foucault/Derrida, politically correct, diversity movements, human rights issues, ecopsychology. 10% of the population, 15% of the power. [Note: this is 10% of the world population. Don Beck estimates that around 20-25% of the American population is green.]

With the completion of the green meme, human consciousness is poised for a quantum jump into "second-tier thinking." Clare Graves referred to this as a "momentous leap," where "a chasm of unbelievable depth of meaning is crossed." In essence, with

second-tier consciousness, one can think *both* vertically and horizontally, using both hierarchies and heterarchies (both ranking and linking). **One can therefore, for the first time, vividly grasp the entire spectrum of interior development, and thus see that each level, each meme, each wave is crucially important for the health of the overall Spiral.**

As I would word it, each wave is "transcend and include." That is, each wave goes beyond (or transcends) its predecessor, and yet it includes or embraces it in its own makeup. For example, a cell transcends but includes molecules, which transcend but include atoms. To say that a molecule goes beyond an atom is not to say that molecules hate atoms, but that they love them: they embrace them in their own makeup; they include them, they don't marginalize them. Just so, each wave of existence is a fundamental ingredient of all subsequent waves, and thus each is to be cherished and embraced.

Moreover, each wave can itself be activated or reactivated as life circumstances warrant. In emergency situations, we can activate red power drives; in response to chaos, we might need to activate blue order; in looking for a new job, we might need orange achievement drives; in marriage and with friends, close green bonding. All of these memes have something important to contribute.

But what none of the first-tier memes can do, on their own, is fully appreciate the existence of the other memes. Each of the first-tier memes thinks that its worldview is the correct or best perspective. It reacts negatively if challenged; it lashes out, using its own tools, whenever it is threatened. **Blue order** is very uncomfortable with both **red impulsiveness** and **orange individualism**. **Orange individualism** thinks **blue order** is for suckers and **green egalitarianism** is weak and woo-woo. **Green egalitarianism** cannot easily abide excellence and value rankings, big pictures, hierarchies, or anything that appears authoritarian, and thus green reacts strongly to blue, orange, and anything post-green.

All of that begins to change with **second-tier thinking**. Because second-tier consciousness is fully aware of the interior stages of development—even if it cannot articulate them in a technical fashion—it **steps back and grasps the big picture, and thus second-tier thinking appreciates the necessary role that all of the various memes play. Second-tier awareness thinks in terms of the overall spiral of existence, and not merely in the terms of any one level.**

Where the green meme begins to grasp the numerous different systems and pluralistic contexts that exist in different cultures (which is why it is indeed the sensitive self, i.e., sensitive to the marginalization of others), second-tier thinking goes one step further. It looks for the rich contexts that link and join these pluralistic systems, and thus it takes these separate systems and begins to embrace, include, and integrate them into holistic spirals and integral meshworks. Second-tier thinking, in other words, is instrumental in moving from relativism to holism, or from *pluralism to integralism*.

The extensive research of Graves, Beck, and Cowan indicates that there are at least two major waves to this second-tier integral consciousness:

7. Yellow: Integrative. Life is a kaleidoscope of natural hierarchies [holarchies], systems, and forms. Flexibility, spontaneity, and functionality have the highest priority. Differences and pluralities can be integrated into interdependent, natural flows. Egalitarianism is complemented with natural degrees of ranking and excellence. Knowledge and competency should supersede power, status, or group sensitivity. The prevailing world order is the result of the existence of different levels of reality (memes) and the inevitable patterns of movement up and down the dynamic spiral. Good governance facilitates the emergence of entities through the levels of increasing complexity (nested hierarchy). 1% of the population, 5% of the power.

8. Turquoise: Holistic. Universal holistic system, holons/waves of integrative energies; unites feeling with knowledge; **multiple levels interwoven into one conscious system.** Universal order, but in a living, conscious fashion, not based on external rules (blue) or group bonds (green). A "grand unification" [a "theory of everything" or T.O.E.] is possible, in theory and in actuality. Sometimes involves the emergence of a new spirituality as a meshwork of all existence. **Turquoise thinking uses the entire Spiral; sees multiple levels of interaction; detects harmonics, the mystical forces, and the pervasive flow-states that permeate any organization.** 0.1% of the population, 1% of the power.

With less than 2 percent of the population at second-tier thinking (and only 0.1 percent at turquoise), second-tier consciousness is relatively rare because it is now the "leading-edge" of collective human evolution. As examples, Beck and Cowan mention items that include Teilhard de Chardin's noosphere, chaos and complexity theories, universal systems thinking, integral-holistic theories, Gandhi's and Mandela's pluralistic integration, with increases in frequency definitely on the way, and even higher memes still in the offing...

[End of excerpt from *A Theory of Everything*]

What the Fukushima Does This Have to do With Fukushima?

Check back to the stages above, and notice the **Orange stage: Scientific Achievement**. It says:

At this wave, the self "escapes" from the "herd mentality" of blue, and seeks truth and meaning in individualistic terms—hypothetico-deductive, experimental, objective, mechanistic, operational—"scientific" in the typical sense. The world is a rational and well-oiled machine with natural laws that can be learned, mastered, and manipulated for one's own purposes. Highly achievement oriented, especially (in America) toward materialistic gains. **The laws of science rule politics, the economy, and human events. The world is a chess-board on which games are played as winners gain pre-eminence and perks over losers. Marketplace alliances; manipulate earth's resources for one's strategic gains. Basis of corporate states.**

This is Gebser's Rational stage. The stage prior is **Blue Mythic Order**—the basis for *ancient nation states*. At Blue, following the rules is primary: what the church says, what the bible says, the laws your government passes, what your neighbors think, what your ancestors taught... This is a very important stage for establishing solid communities and nations. However, at Blue, self-actualization and creative thinking *outside the norm* are *highly discouraged* as a general rule. A few at the leading edge will push the envelope in a Blue environment, but it is not the dominant mode of Blue society. The wave of Blue Mythic Order began about 5,000 years ago, and is still very present today. **Japan's cultural center of gravity is largely Blue, with a systems or technological center of gravity at Orange Rational Scientific Achievement.**

Until the Rational stage (what we know as Modernity) emerged around 300+ years ago, there was a *fusion* of art, religion/politics, and scientific inquiry. **Mythic forms of religion and ancient nation states dictated what was accepted as true or acceptable in art, politics, and science, and economics. Take Galileo, for example, who was one of the brave frontrunners of the Orange wave:**



Galileo Galilei (Italian pronunciation: [galiˈlɛːo galiˈlɛi]; 15 February 1564 – 8 January 1642), commonly known as Galileo, was an Italian physicist, mathematician, astronomer and philosopher who **played a major role in the Scientific Revolution**. His achievements include improvements to the telescope and consequent astronomical observations, and support for Copernicanism. Galileo has been called the "father of modern observational astronomy", the "father of modern physics", the "father of science", and "the Father of Modern Science". **Stephen Hawking says, "Galileo, perhaps more than any other single person, was responsible for the birth of modern science."**

The motion of uniformly accelerated objects, taught in nearly all high school and introductory college physics courses, was studied by Galileo as the subject of kinematics. His contributions to observational astronomy include the telescopic confirmation of the phases of Venus, the discovery of the four largest satellites of Jupiter (named the Galilean moons in his honour), and the observation and analysis of sunspots. Galileo also worked in applied science and technology, inventing an improved military compass and other instruments.

Galileo's championing of Copernicanism was controversial within his lifetime, when a large majority of philosophers and astronomers still subscribed to the geocentric view that the Earth is at the centre of the universe. **After 1610, when he began publicly supporting the heliocentric view, which placed the Sun at the centre of the universe, he met with bitter opposition from some philosophers and clerics, and two of the latter eventually denounced him to the Roman Inquisition early in 1615. In February 1616, although he had been cleared of any offence, the Catholic Church nevertheless condemned heliocentrism as "false and contrary to Scripture", and Galileo was warned to abandon his support for it—which he promised to do. When he later defended his views in his most famous work, Dialogue Concerning the Two Chief World Systems, published in 1632, he was tried by the Inquisition, found "vehemently suspect of heresy", forced**

to recant, and spent the rest of his life under house arrest. (Thanks, Wikipedia: http://en.wikipedia.org/wiki/Galileo_Galilei)

That's right, house arrest by the government (which was tied with the church) for escaping "from the 'herd mentality' of blue, and seeking truth and meaning in individualistic terms—hypothetico-deductive, experimental, objective, mechanistic, operational—'scientific' in the typical sense."

In the ensuing years of the Western Enlightenment, the three domains of Art (Beauty), Morals (the church/politics), and Science became *unfused*—they *differentiated*. Persons like Charles Darwin (whether you like his work or not) were increasingly free to pursue scientific inquiry with fewer constraints imposed by religious dogma. Artists could create ever more freely, and the rise of modern and postmodern art unfolded. **With the Orange wave of science and industrialization we also saw the rise of feminism and women's liberation (with Mary Wollstonecraft's *A Vindication of the Rights of Woman*), the ending of slavery and the rise of civil rights, and even some excellent advances in human hygiene and medicine. We saw the rise of "equality, freedom, and justice; representational and deliberative democracy; freedom of speech, assembly, and fair trial..."** Average lifespan went up, and perinatal and maternal mortality rates declined (much to the happiness of families). Such events were what Ken Wilber calls, in his book *The Marriage of Sense and Soul*, the ***dignity of modernity***.

The ***disaster of modernity*** arose as **differentiation of Art, Morals, and Science flew apart into dissociation**. **Rational science and industry** challenged the previous waves of development—such as **Blue Mythic Religion** with its miracles and stories, and Religion was woefully unprepared to properly reply to the criticisms and questions leveled at it by rational science. Scientific materialism, its discoveries, inventions, and benefits (real or perceived) to humanity began to win the day as the dominant economic, political, and cultural worldview.

Wilber writes: "Remember the dialectic of progress—the mixed blessing—of modernity: the good news was that the Big Three (of Art, Morals, and Science) were finally differentiated and allowed to pursue their own truths in their own ways, which resulted in a spectacular freedom and progress in each; **the downside was that the Big Three did not just differentiate, they eventually**

dissociated, and this allowed an aggressive and imperialistic science to colonize the other values spheres, catastrophically reducing art and morals—the Beautiful and the Good—to unnecessary intrusions on the path of instrumental rationality. Put bluntly, the interior dimensions of I and We—the Left-Hand quadrants—were all reduced to epiphenomena of the Right-Hand world of sensorimotor Its and exteriors: **scientific materialism was born.**”

<http://wilber.shambhala.com/html/books/boomeritis/wtc/part2.cfm>

And thus, the rise of Modern Scientific Materialism ran amok, not just differentiated from the constraints of morals (Religion) and beauty (Art and the Individual), but dissociated from them in service to the “natural laws that can be learned, mastered, and manipulated for one’s own purposes.” Monological (one pointed) science began to rule politics, the economy, and human events in a global chessboard of winners and losers. The manipulation of the biosphere for economic or political gain was valued over beauty or culture. We mechanized with abandon: war, medicine, food production, information, and energy sources such as nuclear power plants.

And so, here we are today: **monological scientific materialism at its zenith has created levels of complexity that, when Murphy’s Law kicks in, we cannot control or contain the damage that ensues.** Examples are legendary: Chernobyl, Deepwater Horizon in the Gulf, Fukushima, the nuclear arms race, genetic modification infecting the food supply...

Fukushima is thus an evolutionary emergent of the Orange meme of Scientific Materialism dissociated from Art and Morals. It is part of the disaster of modernity. Ken Wilber calls this expression of Orange the *Mean Orange Meme*: not responsible, integrated science, but dissociated, disastrous science.

Dignity, however, is not far away. **It requires a more sensitive self, a more permeable self that can see the limitations of dissociated scientific materialism, reintegrating beauty and morals, and the protection of the biosphere, culture, and individuals.** This level of development we saw rise out of modern scientific materialism in the 1960s with Rachel Carson’s

book *Silent Spring*, the civil rights movement, the anti-war movement, multiculturalism, egalitarianism, feminism, free love(!) and Earth Day.

The Green Meme, or pluralistic wave (considering as many things as possible) was born. This is the home of **the sensitive self**, and that self began writing about the damaging effects of dissociation and domination—of peoples and the environment. *Down with hierarchy!* is a huge theme of the Green meme. Contained within Green is an incredible grasp of problems and solutions and *human potential*.

But as with every stage, the Dialectic of Progress is in play, and there is a Mean Green Meme. Its symptoms are a contempt for all previous stages of development, particularly **Blue Order**, **Orange Science** (and some of the criticisms are entirely valid), and for all hierarchies. Green sees *domination hierarchies* everywhere: in abusive governments, religious organizations, social systems, and science/technology, and the **Mean Green Meme seeks to end hierarchy**.

But the stages that led to the Green wave were part of a hierarchy—a developmental hierarchy, and this kind of recognition of *evolutionary development* is essential if we are to make the leap to an Integral Age.

Integral is also known as “second-tier thinking. Because second-tier consciousness is fully aware of the interior stages of development—even if it cannot articulate them in a technical fashion—it **steps back and grasps the big picture, and thus second-tier thinking appreciates the necessary role that all of the various memes play.** Second-tier awareness thinks in terms of the overall spiral of existence, and not merely in the terms of any one level.”

First-tier thinking (up to and including Green) sees every other wave as deluded, and thus in interactions with various parties - each with a different *center of gravity* of development—we experience a battle, which on the international stage looks like a *global autoimmune disease*, according to Spiral Dynamics developer Don Beck. Think peaceniks (Green) vs. George Bush (Blue); Fundamentalists of any denomination (Red/Blue) vs. capitalist democracies (Orange); industry (Orange) vs. indigenous cultures and their lands (Red) and the international organizations trying to protect them (Green).

At second-tier Integral, we look back down the spiral of development and see the value of every level—and the possibility for a healthy expression of each level all the way up (including Orange Scientific Materialism). **We also encourage governance and leadership from an Integral perspective that fully understands and honors a healthy spiral of development, persons and cultures at all levels, and can skillfully create possibilities that heal the *global autoimmune disease* and pathologies of clashing first-tier worldviews.** In other words, Integral seeks healthy expression and development the whole way, for all people, in many shades and colors, however far they choose to grow in their worldview.

The take-home with this perspective of worldview development is that we must stop the finger-pointing, the contempt for “others” and *their decisions*, recognizing that the stages of consciousness—and pathological dissociations—that led to Fukushima are not just “others” but are structures and qualities of consciousness contained within our very own selves and the cultures we create. The issue is not with science, politics, economics, or sensitive-self eco-friendly egalitarians. It is with *dissociation*: and from this particular worldviews/values perspective, that includes dissociation from lower levels of development and from understanding how to create an integrated, healthy evolutionary spiral of development for individuals and the world.

Albert Einstein said, “The significant problems we have cannot be solved at the same level of thinking with which we created them.” Applying this truth to Fukushima from an Integral perspective, we see that the problem of Fukushima-Daiichi is *not going to be solved at the level of Orange Scientific Materialism alone—nor by regressing to an earlier stage of development—but by evolving to a Green sensitive self and onwards to 2nd-Tier Integral thinking and living; seeing to it that we honor and incorporate all levels of being and knowing in a healthy, non-dissociated, Integral Embrace with our eyes on future emergents in our continued evolution.*

We are all Fukushima

Fukushima is born from an incredible level of human development and achievement that also has in its being a certain amount of destructive dissociation. To forget or ignore parts of the Kosmos is to be slightly to severely pathological: the *disaster of modernity*. **The integration of the Kosmos—Matter, Body, Mind, Soul, and Spirit, interiors, exteriors, individuals and groups at every level of worldview or values development - is the healing and wholeness of ourselves and the technologies we create. This is to be the dignity of our age.**

With these perspectives, we can begin to see Fukushima as crisis outcome of many places and origins, which means that there are multiple chances for healing, health, and evolutionary growth moving forward. **As I said earlier, Fukushima is not just a disaster site, it is hallowed evolutionary ground in both Japan and your own awareness.**

Final Words

Science—including the sciences of economics, politics, industry, ecology, systems, and food production—is the domain of external truth. Religion, spirituality, philosophy, and culture are the domains of interior meaning.

External sciences are *in service to* interior meaning, and only significant interior development and meaning can keep exterior growth and development in check so that it does not pathologically dominate, hold hostage, or threaten to reduce or destroy interior depth, meaning, and evolution in individuals and cultural groups.

As Zen Master Thich Nhat Hanh has said, “To heal the environment, you must first heal the environmentalist.” Therefore, it is time to evolve beyond rationality (read: pure scientific materialism) to a post-rational global culture of greater care and concern, integrating all levels of The Great Chain of Being in one’s self, our culture, and nature. Fukushima is a clarion call to a **Culture**

of Integration, healing the *dissociations* we have created in our evolutionary process past and present, individually and collectively.

Finally this is a call to adventure to not be a child anymore, parented by big corporations and governments who have allowed and encouraged your and my dissociations.

We are the Mothers, we are the Fathers. This is *our* time, *our finest hour*. Our best days and years lie ahead of us. Fukushima is not a disaster site, but hallowed ground if we choose to make it so. Hallowed externally because of the lives that will be sacrificed in service to its resolution; and sacred internally because our culture and individual awareness holds both the seeds of Fukushima's creation and the evolutionary, developmental stages necessary to move beyond such destructive technologies.

As Joseph Campbell said in *The Hero With A Thousand Faces*, "We have not even to risk the adventure alone, **for the heroes of all time have gone before us**; the labyrinth is thoroughly known; we have only to follow the thread of the hero path. And where we had thought to find an abomination, we shall find a god; where we had thought to slay another, we shall slay ourselves; **where we had thought to travel outward, we shall come to the center of our own existence; where we had thought to be alone, we shall be with all the world.**"

Therefore, we are going to look this Fukushima-Daiichi demon in the face, say Holy Fuck(!), *smile in self-recognition*, and transform it into an integrated life of depth and development which includes not just a few dissociated, fragmented pieces, but a full and loving embrace of the living evolutionary KOSMOS.

Please stay tuned for more from David Rainoshek on Integral Life Practices.

Primary Resources

- Wilber, Ken. *A Theory of Everything* www.KenWilber.com
- A Brief History of Everything* www.IntegralLife.com
- The Marriage of Sense and Soul* **For more on David Rainoshek:**
- Sex, Ecology, Spirituality* www.JuiceFeasting.com
- Boomeritis* www.DavidRainoshek.com

About the Author



David Rainoshek M.A. (Vegan/Live Food Nutrition) is an Integral philosopher in the tradition of Ken Wilber. David is the co-creator of www.JuiceFeasting.com with his wife, Katrina. He is a Juice Feasting coach, author, lecturer, and has Juice fasted/Feasted for over 450 days, up to 92 days at a time. David served as Research Assistant to Dr. Gabriel Cousens MD for *There is a Cure for Diabetes*, and is now authoring several books including:

- *Juice Feasting: An Integral Hero's Guide*
- *The Four Means to Get Your Greens*
- *The Spectrum of Diet: Integral Evolutionary Nutrition*

David and Katrina coach 92-Day Juice Feasts for clients worldwide, and teaches about Juice Feasting and evolutionary nutrition through his 92-Day Program on www.JuiceFeasting.com.

As leading Research Assistant to Gabriel Cousens, M.D., David served as head juice fasting coach, and taught the 10-week nutrition education classes to kitchen and garden apprentices at the Tree of Life Rejuvenation Center in Patagonia, Arizona in 2006-07. He has taught over 100 raw food preparation classes to children and adults.

In the past three years, David has been applying the Integral approach of world-renown philosopher Ken Wilber to nutrition in his upcoming book, *The Spectrum of Diet: Integral Evolutionary Nutrition*. *The Spectrum of Diet* advocates a developmental model of nutritional and health evolution, with an Integrated dietetic incorporating truths from all nutritional perspectives and practices.

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