

The Concerns and questions of ecological design

Diagram by Sim van der Ryn Architect

Note that the four perspectives are clearly expressed:  
 SELF = UL; ECO-LOGIC = LR,  
 IDEO-LOGIC = LL, TECHNO-LOGIC = UR.

Photo courtesy of Sim Van der Ryn

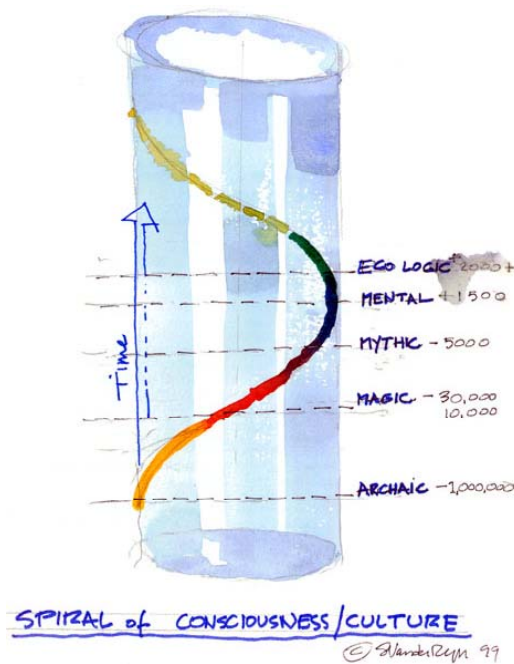
The principles in Fig. XX follow as articulations of the *One Overarching Principle of Integral Sustainable Design*. It expresses the essence of what Integral Sustainable Design is about:

**The One Overarching Principle:**

**Design for sustainability considering multiple levels of complexity in the intersecting domains of self, culture, and nature.** Integral sustainable design requires the balance and integration of important aspects from each of the four foundational perspectives. It asks designers to express visions from both the subjective and the objective of the individual and the collective. Each domain can be considered from greater and greater levels of inclusiveness and depth.

#### 4. Levels and Integral Sustainable Design

Sim Van der Ryn, in *Design for Life*, also uses a developmental model, drawing on Gebser and other proponents of the *perennial philosophy* portraying Gebser's phases as the "spiral of cultural evolution."<sup>53</sup> See Fig. XX. Van der Ryn equates integral stage consciousness with the age of "ecologic." A more integrally informed label would be "integral," because, while LEVEL 4 INTEGRAL consciousness is necessary to design ecologically, ecology is a LR Systems Perspective. However he also believes in the integral consciousness as reconnecting nature and culture and reconnecting body, mind, and spirit. These are well-known contemporary splits culminating in the pathological version of post-modernism that he sees an integral awareness capable of reintegrating. Van der Ryn finds that in integral awareness, we can "experience both the impermanence of the material world and our interconnectedness to it and the flow of the universe." As such, humans would move "towards an ecological intelligence and compassion for everything that is alive and changing." In all these ways, Van der Ryn is an integral thinker and expresses well the integral level of sustainable design.



*Spiral of Cultural Evolution*

<sup>53</sup> Van der Ryn, Sim (2005). *Design for Life: the architecture of Sim Van der Ryn*. Salt Lake City: Gibbs Smith.

**Exploring Levels in Sustainable Design.** Sustainable design is not a new level of design. It works at each of the contemporary levels where design is practiced and through which users and owners frame their understanding of design. In the contemporary professional landscape, there are a few designers who practice a more traditional worldview, many who practice with a center of based in 20<sup>th</sup> century modernism, and others who practice from a post-modern perspective. Sustainable design needs elements, solutions and thinking from each of these levels. Sustainable designers also are challenged to create places that are satisfying to each worldview. Users, occupants, and clients come in the same range of worldviews and values as does the spectrum of our multi-leveled society. Effective SD creates value and opportunities for comprehension and appreciation for all levels. To recapitulate the developmental sequence of sustainable design viewed through the four contemporary structures, consider the following summary framework:

**TRADITIONAL WORLDVIEW**  
**Eco-Manager Designer (Level 1)**

- Successful solutions to stable problems improved over time.
- Gratifying, solutions to pre-modern levels of needs (shelter, safety, prospect and refuge).
- Codified building cultures generate whole and satisfying places: historic typological, craft, and precedent solutions.

**Traditional Values User:** Absolute belief in one right way or authority. Look for meaning in conforming to rules. Sense of self as embedded in church, country, etc. Ethnocentric. Sacrifice now to obtain later. The timeless is good.

**Environmental Goals and Values:** Keep harmony and stability; manage nature properly now so the future will hold nature's bounty; follow higher authority and comply with rules and regulations to avoid punishment.

**Examples:** Earth as the Garden of Eden; Puritan ethos; Boy and Girl Scouts; environmental legislation; Endangered Species Act; Environmental Protection Agency, regional vernacular architecture, historic preservation, national park structures, wilderness area designations.

SESSION THREE :  
EXPLORING DEEPER INTO THE SYSTEMS PERSPECTIVE [LR]

1. *Thinking Ecologically.*

To design ecologically, we have to begin with thinking ecologically. Ecological thinking is new for humans. It is part of a major evolutionary leap in the structure of human consciousness. We are now in the midst of this transition to a new thinking. For most of us it is hard work. Jean Gebser, the



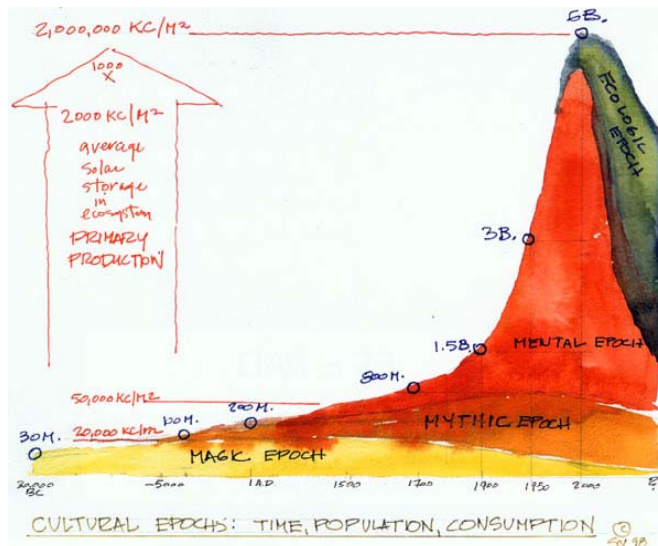
famous philosopher/cultural theorist/poet, in his landmark work of 1949, *The Ever-Present Origin*, outlined five epochs of the development of cultures, which he termed “structures of consciousness”: *Archaic, Magic, Mythic, Rational, and Integral*.<sup>15</sup>

According to Gebser’s observations, each new development in the collective consciousness of a culture involves an unfolding of deeper and wider perception and value. Each progressive stage is characterized by an increase in mental organization and complexity. Ken Wilber, in an epic sweeping survey of developmental models, finds Western developmental psychology in conclusive agreement that “the mind itself has at least four stages of growth: *magic* (2-5 years), *mythic* (6-11 years), *rational* (11 onward), and *integral-aperspectival* or *vision-logic* (adulthood, if then).”<sup>16</sup>

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<sup>15</sup> Gebser, Jean. (1949). *The ever-present origin* [Ursprung und Gegenwart]. Trans. Noel Barstad and Algis Mickunas. Athens, Ohio: Ohio University Press, 1985.

<sup>16</sup> Wilber, Ken (2000). *Integral psychology: consciousness, spirit, psychology, therapy*. Boston: Shambhala, p.144.



Cultural Epochs: Time, Population, Consumption  
 Van der Ryn's mapping Gebser's epochs. He names the Integral level as the "Ecological Epoch"  
 Image: Sim Van der Ryn<sup>53</sup>

**From rational to integral.** Ecological thinking is one of the capacities characteristic of the shift from *rational* to *integral* awareness. Integral awareness, according to Gebser, is characterized by:

- Disidentification with the ego
- Concrete, present-centered awareness
- Aperspectival, holistic perception
- Integration of all previous structures.

Modern, 20<sup>th</sup> century, industrial cultures are centered in the rational stage, which is characterized by:

- The identification of being with thinking
- Individual self-consciousness
- A three-dimensional perspectival world-view
- Modern analytic and scientific thought.

What gradually happens is not just a linear accretion of more and more that one can look at or think about, but a qualitative shift in the very shape of the window or lens through which one

**Ecological thinking is integral level thinking.** From a decade of experience teaching ecological design to students, it is increasingly evident to me that learning to think ecologically is much more than the mental-rational consciousness at work manipulating a new set of facts.

#### EXPERIENCES PERSPECTIVE [UL]

- **Design profound aesthetic experiences**, accessing multiple senses, of natural processes and a living world. Reveal and celebrate cycles, seasons, light, life, and hydrology through design, heightening perception and bringing delight to the full phenomenological being.
- **Design to access human psychological connections to place**, at multiple levels from archaic archetypes to the transpersonal. Create healing opportunities for the contemporary psyche, inspiring and comforting by reintroducing the natural world into our settlements.
- **Design centering places conducive to self-aware transformation** to higher levels of ecological consciousness. The higher the level of self-awareness, the wider is the circle of value, thus the more spontaneous effort and internal capacity of benefit to that larger circle.

#### BEHAVIORS PERSPECTIVE [UR]

- **Design high-performance buildings** that maximize efficient use of water, energy, and material resources while minimizing waste and pollution. Reduce throughput and create recycling.
- **Design with on-site renewable resources** of sun, wind, and light. Heating, cooling, lighting, and power in a sustainable society can only temporarily rely on finite sources.
- **Design to create safe, healthy places with long-term value**, eliminating toxicity to present or future generations.

#### SYSTEMS PERSPECTIVE [LR]

- **Design at three levels of holarchy**: to build a larger whole, to create a whole, and to organize smaller wholes. Ecological designers think at multiple scales of nested networks.
- **Design living systems using ecology as the model**. In nature, its patterns of organization mean that waste equals food; recycling is endemic; resources are localized; and solar energy fuels all. Fit flows to local renewable systems while also supporting technological ecosystems.
- **Design solutions fit to particular places**, considered as local site, larger neighborhood, and region. Patterns of structure and function in natural systems are always grounded in patterns of location, which forms the context of social patterns.

#### CULTURES PERSPECTIVE [LL]

- **Design based on a high and conscious environmental ethic** in which humanity and nature both thrive in regenerative human ecosystems. Be a stand for designing to insure the appropriate rights of all species and ecosystems and of future generations.
- **Design to place people into significant relationships with nature** by making visible how culture is interconnected with living systems. Manifest natural processes and ecological services via design.
- **Design for cultural communication by using the symbolic languages of design**. Use the power of design as an inhabited art to make evident the meaning of ecological systems and our place in the many levels of the Kosmos.

*Principles of Integral Sustainable Design*