Ecological Reasoning and Architectural Imagination

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Today's lecture is titled 'Ecological Reasoning and Architectural Imagination' because I want to talk about how the science of ecology, creatively imagined, and aesthetically interpreted, can provide us with a source for a 'new language' and effective 'design strategy' for inclusive and integrative architecture of landscape, buildings, and city.

By most accounts, both in environmental management and design promotion, the Netherlands have been doing an enviable job during the last two decades. Dutch landscape architects, architects and urbanists are calling the media's attention, and are impressing upon many young and old designers abroad. Dutch 'landscape' and 'environment' is 'cool', and Dutch Design is 'hot'.

In spite of these recent advances in environment and design, (prompted by economic prosperity and concentrated national effort to promote design, and of course many other reasons that I will not list here), there is a lingering gap¹ between design/aesthetics and ecology. In short, the two are not in a happy marriage. Ecological concerns are handled by architects in practical and functional aspects, but they are not the subject matter of design expression and experience.





1: Tulip Fields, Netherlands

2: Piet Mondrian

I am not saying here that the purpose of landscape architecture is conservation and $ecology^2$, nor do I say that ecology is a

¹ Knuijt, 1995, Cook, 2000, p127

² By 'écology' here I refer not just to the science of ecology (landscape ecology or cultural ecology) today, but also to the holistic, open-system and dynamic/process orientation the science ecology takes. By 'ecological' I mean a life-based, environment-oriented, evolution-directed reasoning and outlook. I like to therefore

panacea for today's environmental design. We build our architecture, shape our cities and change our landscape to cultural evolution, advance our whose sustain or accomplishments are measured by the higher degree of 'economy' and 'freedom' they afford us.³ Through landscape architecture we are constructing an adaptive environment, a mediating our microcosm with our third environment. macrocosm.⁴ Here, the measure of guality or success of our third environment is then not 'beauty', but its 'fitness' to people (human, cultural aspiration) on one hand, and place (ecological, physical and cultural context) on the other.



3: Tulip Fields



4: Korean Wrapping Cloth

So, as I talk about 'landscape' and 'design', both a 'Dutch subject' and Dutch strength, I like to talk more specifically about the unresolved tension between Modernity and Environmentalism. I believe that this tension needs to be explained and resolved to ensure Dutch leadership in 'integrative' and 'sustainable' environmental design.

void here all ideological, fundamentalist, deterministic, conservative and even totalitarian characterization of the ecological approach to architecture and landscape architecture (as for instance in the case of rejection of 'foreign' or 'invasive' plants). Science is neutral, and art, as the aesthetician Herbert Read correctly noted, is a biological phenomenon.

3 (Cohen, ; Koh,1978).

⁴ Fitch, 1968



5: Atelier Quadrat, Pilot 24, Landtong Peninsula, Koop van Zuid, Rotterdam

. . .

 The processes of cultural evolution have been influenced not only by concrete context, land, but also by inherited cosmology, worldviews (and meta-narratives, story). The ways we plan, design, build and sustain our environment are also influenced by these worldviews. The most significant among these are two major worldviews: one was the anthropocentric / <u>humanistic</u> / religious tradition of the West/Europe; the other the cosmological / <u>naturalistic</u> / spiritual tradition of the East/Asia. We call the former 'historical culture' and 'teleological', the latter 'aesthetic culture' and 'situational'⁵.





5: Villa Lante, Bagnaia, Italy

7: Katsura Rikkyu, Kyoto, Japan

5 Fukuyama, 1992

2. Within the humanistic traditions of the West there have been two mainstreams: 'Classical style' and 'Romantic style'. The former more favored in architecture in Southern Europe, the latter in landscape architecture in Northern Europe. The Classical style was logo-centric (mind/power/authority/ socially distancing), the Romantic style was emotional (heart/love /'patronizing'/aesthetically distancing)⁶. It is important to note that in this anthropocentric culture, 'landscape' and 'nature' have not been legitimate subjects of artists and philosophers until after the 16th Century, whereas East Asian painters and philosophers dealt with nature and landscape as serious subject from an earlier time. But it is of both historical and cultural significance that here in the Netherlands, the landscape has become the subject of artists early on; and that the English word 'landscape' finds its origin in the Dutch word 'landschap'.



8: Vaux -Le Vicomte, France



9: Stourhead, Wiltshire, England

3. Modernity, which some aptly call as 'peculiar Western fantasy', in Europe meant a (destructive) triumph of logocentric thinking and Classical tradition over expressive and Romantic tradition ⁷ The triumph was, however, a schizophrenic, alienating, homogenizing one of object/reason over subject/feeling, mind over heart, science/logic over art/aesthetic, masculinity over femininity,

⁶ Giedion, in his seminal book 'Space, Time and Architecture' has observed the merging of the Romantic and the Classic in the late phase of Modern architecture (Giedion, 1967). Lesnikowski also writes about dialectics of these two streams in Western architecture (Lesnikowski, 1982).

⁷ This is comparable to the way the Christian missions prevailed over Zen/Buddhist traditions of East Asia as well as over many native religions in other parts of the world.

ego over eros, and 'will power' (love of power) over the 'capacity to love' (power of love) different races, species, and cultures⁸.



10: Attacking the modernist destruction of the ancient urban fabric of Paris, F.J. Batellier



11: Seoul, Korea

- 4. The cost of modernity, however, has been far more disastrous in East Asia than Europe, particularly in many rapidly industrializing nations without participatory democracy. This is in stark contrast to how the West has successfully assimilated Eastern philosophy and aesthetics in the beginning phase of Modern art and architecture towards the late 19th century and early 20th century.
- 5. Searching alternatives to Modernity, architects and landscape architects had engaged natural and social scientists in a lukewarm manner in the late 1960's and 1970's. Out of frustration of not getting out of their own 'box', and their inability to find a proper aesthetic language and design strategy, to go beyond Modernity, some of them went back to Modernist art with its self-referential and elitist attitudes. This is then the 'new modern', or 'soft modern'.
- 6. Without new language of design to effectively displace the old, in this case Modernity, even Ian McHarg, a pioneering proponent of the ecological approach in landscape architecture, was anti-architecture and anti-city, and favored the 'Romantic' English 'picturesque garden' and rustic,

⁸ In this regard I like to quote John Gribbin: 'The big difference between the way we have been looking at life so far, and the way we are going to look at from now on is that previously we are looking at life from inside out, while now we are going to look at life from outside in' (John Gribbin, 2004, p.200)

indigenous architecture and countryside, to conjure up an image of fitness, health and equanimity.⁹. McHarg as a planner, made a historical contribution to large-scale landscape planning by legitimizing the ecological approach. In case of the Netherlands, landscape ecology has been making a strong contribution to landscape planning and sustainable design. But in the area of landscape design, here as well as in other European and North American countries, this integration of ecology with design has been slow in coming, in spite of some theoretical attempts¹⁰. One of the results is, in my view, undesirable predominance of Modernist language and images: privileging vision over experience, appearance over system, product over process, function and 'program' over ecological and cultural relevance.

7. In the meantime, some leading architects and urbanists around the world have successfully been 'appropriating' landscape into their designs, even resuscitating modernity on its deathbed. In this regard, Dutch architects and urbanists too have been building many successful cases. In fact, one of the primary reasons for Dutch architects' appeal to the rest of the world today appears to be this active 'landscaping', this embracing of landscape into the building core. This success and appeal, I believe, has perhaps just as much to do with the 'sunset effect' of modernist heroic in the present culture where image counts more than reality, as it has to do with the no-nonsense, non-sentimental aspect of Dutch middle class culture and prolonged social democracy.



12: Delft University Library, Mecanoo



13: Dutch Pavilion, Hannover Expo, MVRDV

9 Spirn, 1998 10 Koh, 1988; Howett, 1989; Berleant, 1993; Mozingo, 1997; Spirn, 1998; Meyer, 1999; However, how do we designers explain the aesthetic appeal of these building and urban designs appropriating landscape? Which Modern architectural principles can we use to explain this beauty of landscape integration into architecture? Can this appeal be fully explained by functionalism, formalism, or even structuralism? Does this not imply the fundamental incompleteness of architecture without landscape?¹¹ Does not this very appropriation in practice imply, the death, in theoretical terms, of Modernist aesthetics, functionalist logic and classicist tradition in the face of environmentalism? Doesn't this really mean that 'architecture' is in fact not just embracing landscape, but that they are in actuality seeking a "landscape approach" to architecture?

At the urban level, too, we recognize today not only massive efforts of re-landscaping, re-naturalizing, repairing, recycling, restoring and restructuring of cities, but also reformulation of urban theories themselves, in the name of 'landscape urbanism', 'network city', and 'soft urbanism', in which 'landscape', 'nature', 'country' are no longer marginalized but placed into the core, or the ground condition, or 'site', of practice¹².

8. Given these developments in architecture and urbanism, can landscape architecture afford to rely on architecture and aesthetics of Modernity, using their exclusive, abstract, formal language and product-oriented design strategy? Is self-referential landscape design today just a sign of a late arrival of Modernity/ego in landscape architecture? Or is it a sign of a 'catching up syndrome', of landscape architecture wanting to become legitimate 'art' in its own right, to get emancipated from its functional, conservational, and agricultural heritage?

¹¹ Koh, 1987

¹² Corner, 1999 ; Frampton, 2002





14: Museum Plaza, Amsterdam Sven Ingvar Andersson



15: Schouwburg Plaza, Rotterdam, West 8



16: Kempinski Hotel, Munich, Peter Walker



17: Jacob Javitz Plaza, New York, Martha 'Schwartz

But why this modernity again¹³, after more than 40 years of sustained criticism, not only by architects but by many social and natural scientists and philosophers?¹⁴ Why don't landscape architects look outside, and hear others? Was not the driving force of Modernity, and the Enlightenment project, for that matter, after all 'control and domination of nature' for the sake of human freedom (freedom from fear. freedom from poverty), and exploitation economy. Enlightenment was built upon incorrectly believed (or fantasy of) knowability of everything, and existence of absolute truth.¹⁵ We know, however, more than that today. So, is it now not time that landscape architects build, and formulate their own 'aesthetic languages' and 'design strategies' that have not only scientific validity, social relevance, and architectural utility, but are also compatible with co-evolutionary ethics? Can we landscape architects then develop such an aesthetic without becoming moralistic, fundamentalist, deterministic, or ideological?¹⁶

9. Of course, one might ask, 'Why bother with 'ecological' approach, now that the environment is under control here in this country?' 'Does it matter what style/form/language we use as long as ecological, social and human functions are taken care of?' 'Must landscape mean?' or, 'should landscape symbolize cosmology? Can it not just mirror our reality of middle class culture? Did not Modernist art after all emancipate from this representational role and symbolic function of art? However, we cannot reject or ignore this symbolization aspect connecting the landscape to our image of the 'larger world' and follow self-referential Modernist tradition, though some argue that in this rejection of looking outward lies the very essence and strength of Dutch art and architecture.¹⁷

¹³ Refer to Appendix: 'Why is Modernity still strong in the Netherlands?'

¹⁴ Berleant, 1993; Jencks, 1995

¹⁵ Harvey, 1990

¹⁶ I had already written in my former academic career, that we should and could build a new theory, new design and new aesthetics, and advanced 'ecological design' and 'ecological aesthetic' as a paradigm appropriate for post-modernity. Though I had left full time academic landscape discipline and North America for over 13 years, I have not yet heard any persuasive argument against that.

¹⁷ Betsky, 2004; Vroom, 1997

Landscape, be it constructed or grown, means and communicates something, whether its designer wanted it or not. The designer can neither totally control, nor avoid designed landscape being meaningful and representational. Humans are symbol makers, they gain survival advantage by their ability to make symbols, and culture is a 'web of meaning'. The beginning of art and science (cave paintings and Stonehenge) was also an adaptive means by which we 'humans' connected ourselves with the cosmic system and process, and represented reality as we knew and valued. Just as no discipline can mature without theoretical clarity and strength, an individual and a culture cannot mature without seeking meaning. And meaning comes from our connectedness to something larger and more permanent, as well as from our self. Our aesthetic experience of landscape is then strengthened and enriched when our landscape is not only clear but also meaningful.

So, in spite of somewhat frustrating experiences of landscape architects having to work with environmental and social scientists, scientific knowledge, in this case ecology¹⁸ can become the firm ground upon which landscape architecture can build a new aesthetics, and significant creativity for lasting and inclusive effect, if it is accompanied by architects' creative imagination.¹⁹ Creative architects' design often performs better when there are constraints.²⁰

When I use the term ecology, I also simultaneously refer as I indicated earlier to 'deep ecology', to 'ecology of mind' to 'ecology of experience', i.e. 'phenomenology', as well as to

¹⁸ Of course within ecology, since its first emergence as a science in mid 19th century, there has been a series of theoretical revisions and developments: Ecological hierarchy is now conceptualized as 'nested hierarchy' (or self-similarity), differentiated from authoritarian hierarchy; Succession is now believed not necessarily linear process leading to lasting equilibrium or climax but, as a nonlinear process, with fluctuation due to environmental perturbation. The concepts of 'carrying capacity', 'network', 'edge', 'territoriality', 'niche', and 'patch sizes' are useful to landscape planning; Evolution, too, is considered not just teleological, as in Darwin's 'survival of the fittest', but teleonomical: it combines disorderly chance happenings (such as mutation), with orderly, predictable natural selection, leading to a higher level of order, love, symbiosis, connectedness, diversity, stability, system health, resilience, intelligence and creativity.

¹⁹ Refer to Endnote: Why is Ecological Approach and Design not Well Accepted Yet?

²⁰ Recent work of MVRDV's Data Map is just one case in point (MVRDV, 1999.

depth psychology of human perception, cognition and creativity. By connecting all these, I may risk the danger of being a structuralist, who presumes the presence of 'structure', and imposes and projects 'structure' upon the reality, instead of absorbing it open-mindedly and sensing the phenomena as they are, just as Chinese rice paper receiving ink. But the concept of 'system', particularly 'open system' (or better, 'network'), and current attention on 'process', particularly on 'nonlinear process', are scientifically valid and artistically useful principles. Besides, all human creativity and the very process of our knowing itself involves a metaphorical jump, or even 'bold conjecture', and the very process of perception requires mental schemata.²¹

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In advancing ecological aesthetics in the past, I had claimed the following:

- There is an undesirable gap between aesthetic theory and environmental design;
- An inclusive ... theory of aesthetics²² is necessary for the design of an inclusive and adaptable environment; and
- Such a theory can be developed on the basis of a dynamic theory of creativity, as opposed to a static (classical or romantic) culture-bound concept of beauty.²³

I find these claims are still pertinent today. But this gap between aesthetic and design is still there, particularly between ecological aesthetics and landscape architecture.²⁴

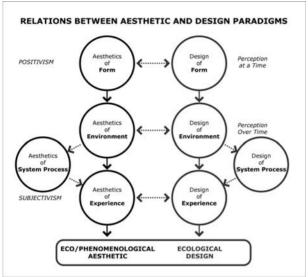
²¹ Piaget, 1971

²² Philosopher Arnold Berleant thinks in a very similar way to mine: 'A single aesthetics applies to nature and art because in the final analysis, they are both cultural constructs' (Berleant, 1993, p.241)

²³Koh, 1987,

²⁴ Here we must remember that Modernism was in the end an aesthetic movement conceptualizing architecture as language. So for bridging the gap, we need an ecological aesthetic build upon aesthetic (holistic, experiential) ecology of system process as well as our experience of environment, phenomenology.

Modernity continues its current undeserved, undesirable dominance, taking advantage of image consuming culture. Herein lie the problems of the '2nd



^{18:} Koh, 1982

As an ecological aesthetic and design principles (descriptive as well as prescriptive), I presented in the past three 'fundamental' principles: **Inclusive Unity**, **Creative Balance**, and **Complementarity**. I call these principles 'fundamental', not only because I believe in what Gribbin called 'deep simplicity' of nature²⁵, but also because they are related to fundamental principles in contemporary physics explaining the forming and ordering principles in nature, and the nature of order, namely: the 1st and 2nd Laws of Thermodynamics (as applied to open systems), and Uncertainty and Indeterminacy principles.

Modernity' and 'Super-Dutch' in this country. (Betsky, 2004; Lootsma, 2003) Our judgment of designs is increasingly influenced by 'appearance' and 'image', which are easily manipulated, exploitive, and marketed, rather than by their real functional, human and environmental performance and many non-visual sensory experiences. 25 Gribbin, 2004

I still practice these principles in spite of my awareness of postmodernists' 'intense distrust' of general, unifying theory. For my practice, ²⁶ these principles lead to economy of effort and development of the concrete and specific methods of design. The principles, properly applied, broaden the appeal of designed landscape, and make the rationales of landscape design comprehensible to other stakeholders and disciplines. In fact, I found the (prescriptive) principles are not only useful just for integrative and sustainable design, but also powerful (descriptive) tools explaining the inclusive and lasting aesthetic appeal of a broad range of outstanding and memorable landscapes, and landscape designs.²⁷

Now, I like to illustrate actual applications with concrete aesthetic languages derivative of these principles. In doing so, I hope to advance my claim that ecological reasoning and architectural imagination can be creatively combined for new aesthetics and design languages (consistent with environmentalism and Berleant's idea of 'aesthetic engagement'), and that building 'language of landscape architecture', from a descriptive understanding of the 'language of landscape' and 'language of nature' themselves rather than from a Modernist 'language of architecture').28

²⁶ What we are designing in this ecological view, I believe, are not 'form', 'space' or 'function' as Modernists had led us to believe, but 'system', 'process', and our 'embodied experiences' thereof.

²⁷ Our application involved not only repair of damaged environments and sickbuilding syndrome of large scale but also new landscapes and gardens of small scale. This of course does not mean that all stakeholders/clients in Korea accepted ecological design. In spite of East Asian Cultural heritage, whose traditional architecture is very 'ecological' as well as 'aesthetic' (as opposed to functional), today's Korea suffers from Westernized mentality combined with Confucian authoritarianism. The government and corporate governance structure is very 'divided' and 'hierarchically organized' and decision making is very linear and centralized whereby collaboration/thinking and backtracking is difficult. I have personal experience with Seoul City as well as large corporate management about how such situation makes integrated and sustainable process-oriented design difficult even with the brightest mind and good heart of top leadership.

²⁸ These illustrations legitimate inclusively, and benefit from, what has been tried by landscape architects such as Lawrence Halprin, Richard Haag, Peter Walker, George Hargreaves, and Andropogon, architects like Charles Moore, land artists such as Robert Smithson and Patricia Johanson, as well as from the writings of David Abrams, Anne Spirn, Elizabeth Meyer, Anita Berrizbeitia, James Thorne and Louis Mozingo. I believe that we are still in the process of developing sufficient language to complete both a paradigm shift to Post-Modern ecological environmentalism and 'recovery of landscape' itself. I know that this cultural transition takes a long period of time, during which Pre-modern, Modern, and Post-modern aesthetic may coexist. But articulation of these principles not only helps emancipate landscape architecture from

Inclusive Unity with People and Place



The perceived sense of continuity of human being and the dynamic forms and processes of the natural world is a central factor in the aesthetic appreciation of nature²⁹

The principle implies inclusive and regenerative integration of building with landscape, and landscape/architecture with 'people' (biological, psychological) as well as 'place' (physical, biological, poetical). Both people and place are immensely diverse and ceaselessly changing. The circle is at once a point in circular movement (with an implied center), or line of circle, a slice and aspect of sphere.³⁰ It also relates to the Chinese Taoist concept of 'void' and 'active negation' of binary division.

Under this principle following interrelated aesthetic languages and design strategies can be listed:

environmental science and art, but also strengthens the disciplinary theoretical foundation of landscape architecture and its potential contribution to and influence on other related design disciplines such as architecture, urbanism, and even environmental art.

²⁹ Berleant, 1993, p.240

³⁰ The circle symbolizes not only a state of harmony, perfection, cosmos, integratedness and equity, but also cycle, movement, process, recycle and regeneration. It is a perfect form, icon of heaven, and at the same time also a symbol of a State of Undifferentiated-ness Nothingness and Active Negativism in East Asia (negation of both ethical dualism of human and nature, subject and object, as well as intellectual dualism of reason and emotion, conscious and subconscious, left and right brain). Compared to this, the Classical concept of unity is exclusive, and anthropocentric (unity of architecture itself, measured by and referenced to human scale)

- Connection to and expression of temporality and time: diurnal, seasonal rhythm; tidal 'cycle'; processes of change, aging, development; process; expression of ephemerality, transience, lightness, impermanence
- Use of 'recycled' form, material, image; new use of the old, and coexistence with the old; tradition; 'closing the circle' (use of output/waste as input/source; conserving energy, knowledge, species)
- Grounding, undergrounding, backgrounding: revealing the ground, and framing the background, responding to topography
- Sense of 'connectedness' to nature, landscape: fitness (to function and program as well as to environment and context)
- · Circular arrangement: equity, community
- Aesthetic and design participation: engagement, and user participation; void, room with openness, open-endedness, openable window, changeable and movable seats and walls
- · Aesthetic of frugality, voluntary simplicity, and modesty
- View framing: vista, seeing without being seen, 'Prospect / Refuge'; belvedere
- Immediacy (elimination of barrier, wall and proscenium arch, overcoming disinterested 'aesthetic distance' for contemplation by the rich and noble), vividness





19: Tide / Time

20: Change



21: Framing

22: Revealing

- Indoor-Outdoor continuity and 'deep integration': breathing wall, window or pavement; porous and permeable wall/boundary as membrane
- **Territorial** articulation, identity and autonomy: dike, wall, fence, threshold, entry, stoop, passage, gateway, territorial marker, boundary, edge;
- Horizontal **transition** (from public to private): balcony, veranda, threshold, bridging
- Vertical transition (from topographical to architectonic, from commercial to residential, from profane to sacred.)
- Receiving, accepting the given (without erasing and obscuring; nut vs. bolt interlocking)
- Attention to detail self-similarity and nested hierarchy (revealing how things are made): joint and joining between different material, construction, territory, etc.
- Revealing the **process** of construction and maintenance: scaffolding, layering
- Concreteness: personal identification



23: Contemplative Participation



24: Threshold



25: Grounding

26: Participation





27: Framing





29: Deep Integration



30: Indoor-Outdoor Continuity



31: Horizontal Transition



32: Territorial Articulation



33: Vertical Transition/ Revealing

34: Concreteness

- Inclusiveness, Integrating
- Differentiated edging: interfacing, bounding, territory
- Human scale and form: embodied shape, pulse, breath, sensuality
- Multi-functioning and Niche (time-sharing)
- Materiality: local material, natural material, tactile and haptic experience
- Directing / orienting / connecting to sun, moon, and landscape view: genius loci, identity of place and sense of 'placeness'; allusion to known/sacred landscape images and memory (symbolic unity)
- Separating structure from form/appearance
- **Diversity**, Multiplicity, Biodiversity, Patch size, **Network**, (and other ecological and landscape ecological concepts)
- Design expressions of regenerative, sustainable, healing design



35: Materiality



36: Teaching/ Healing Design

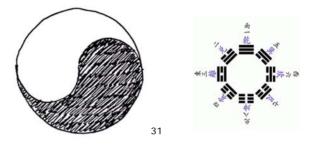


37: Genius Loci



38: Sensuality

Creative Balance



Balance in classical aesthetics and static mechanics means (symmetric and asymmetric) balance in

Feng Shui, which I like to characterize as 'phenomenological' and 'aesthetic' geography, is a reading of land and land shape not just by form and vision, but by 'Ki' flows and bodily knowing of 'Shamans'. It uses the metaphor of the female body in Structuring the landscape that surrounds us: the most auspicious place according to Feng Shui is a place that has a high concentration of Ki, which is also related to most erogenous female anatomy. In this Yin-Yang symbol (unlike in the binary case of Westem treatment of masculinity and femininity, Heaven – God /Father, dominating Earth –Mother/Nature, leading to a phallo-centric male-dominated view), male and female are completely balanced if asymmetrical, in meeting, 'mutually enhancing', and 'mutually balancing' ways: none dominating over the other. Its asymmetry and helical form also suggests that it is in flux, in process. And yet, Yin or Yang are incomplete without the other (its half also relates to the human fetus shape) until they are both fully integrated into a differentiated whole. This also relates to an 'individuation' archetype. (Koh, 1978; Koh, 1981) Illustration p. 27; 'I Ching' Diagram

³¹ The Yin-Yang symbol is taken as a sign for balance of quality (feminine/masculine, soft/hard, flexible/rigid) as well as a principle (order/disorder, organic/inorganic). Binary differentiation of Yin Yang appears also in the 'archetype' symbolism of various cultures (Jung, ; Koh, Design for Fantasy). Yin-Yang is then a state of integration with internal differentiation.

In architecture and landscape of Western culture Father Archetype and Mother Archetype often appears separately, Yin and Yang remaining separate. But in many significant architecture contains simultaneously an asserting tower of masculinity and receiving opening of femininity, love. Examples are the Cathedral of Notre Dame with two bell towers and rose window, the Taj Mahal with Minaret and Onion Dome, or the Egyptian temples, the Eiffel Tower, and Grand Arch in Paris. In landscape, mountains, the pyramids, or Stonehenge are Father Archetype (Yang symbol); river, reflecting pond or other water bodies are Mother Archetype (Yin symbol) in terms of Jungian psychology. The grotto is a symbol for womb, as well as dark side of self and subconscious world. Its devouring mouth/entrance image is both threatening as well as seductive vaginal entrance in Freudian and Jungian psychology, a symbol of a ritual of 'passage'.

power/force/guantity/form and this leads to equilibrium, as in the balancing scale or pendulum, returning both to their original state, a conservative principle. Creative Balance refers, simultaneously to dynamicity, change and balance, and asymmetry in a self-organizing process of organic and inorganic systems in development, including ecosystem development, and evolution processes.³² It refers to the balance of opposing principles/quality/process such as between order and disorder, composition and decomposition, in self-organization and selfregulation processes. This balance is creative in that it does not lead back to the original state and that it occurs in irreversible hiaher processes, leading to а level of complexity, incorporating/absorbing temporary and local disorder. disruption, contradiction and discontinuity.

This principle finds its parallel in biological ontogeny (individual growth) and phylogeny (species evolution), ecological system (community) development ³³, and fluvial geomorphologic evolution ('rapid wasting' in upstream and slower meandering downstream) and in the self-similarity found in marshland and other fluid landscapes. ³⁴

Aesthetic language and design strategies based on and related to this second principle can be the following:

- Synchronicity
- Change, Mutation, Transaction
- Ephemerality with endurance: change and continuity (unity with environmental, and human change); tradition and innovation
- Flow/transience: revealing / day-lighting stream flow
- Fluvial forms: stains, sedimentation, erosion of flow, erosion, decay, sedimentation; 'Sensitive Chaos', 'Fractal', 'Self-Similarity'

³² Jantsch, 1975 ; Prigogine, 1972

³³ Odum, Eugene, P., 1971; Koh, 1978

³⁴ Koh, 1978 ; Jantsch, 1975 ; Prigogine, 1972;

I find their parallels appearing in the creative process of artists and scientists, and that of human procreation: random meeting of sperm and egg, caring incubation, and final painful, risky delivery rewarded with joy.



39: Self-Similarity







41: Lightness

42: Wooden Beam Revealing Ki



43: Traces



44: Flow / Traces



45: Sensuality



46: Immersion / Fragmentation



47: Sensitive Chaos



48: Ephemerality

- 'Furhyu' as an aesthetic and 'open' mind-set (Japanese nonmoral, aesthetic, pleasure-seeking 'Ukiyoe', floating world, concept), Taoist immersion, experiencing the flow of 'Ki' (vital, knowing energy), wind and stream
- Sensuality, muscularity, eroticism and sexuality as cosmic force
- Juxtaposition of Opposites (old and new; change and continuity; regular and irregular, natural and artificial, order and disorder, organic and geometric; simplicity and complexity
- Fragmentation and disorder, disjunction, disruption; collages; non-rectilinear, non-parallel, random layout, irregularity,
- Twist, Fold, undulation, fracture (as topographic manifestation of geotectonic event; rocks as manifestation of the Earth's energy)
- Aging: surviving through the test of time / proven, mature, endurance through harsh nature
- Insertion and disruption, interrupting harmony
- Fluidity, meander / rhythmic, spiral
- Fibonacci and Golden proportion orderly numbers in disorderly relationship





49: Order & Disorder



51: Sensitive Chaos/ Fluidity



52: Change & Continuity

50: Fragmentation / Irregularity



53: Participation







54: Flow /Daylighting Water

55: Insertion

56: Flow/Traces/Fractal



57: Revealing/Seeing the Wind



58: Randomness

59: Porosity

In modern architecture the balancing of organic and inorganic was most skillfully done in Alvar Aalto's naturalistic and humanistic design. Even though, Le Corbusier's Ronchamp chapel, and other works also recognize sensuality and muscular form, irregular free form juxtaposed with regular structure and form, as in the case of Japanese mannered design and Zen aesthetics.³⁵ Frank Gehry and Morphosis also experimented with their design as expression of fragmentation.

35 Koh, 'Katsura - Why is it so beautiful?', 1985

Complementarity



This principle refers at once to man-nature, subject-object integration, and to thought/feeling, mind/body, sacred/secular integration, as each is incomplete without the other. This ultimate integration is at once 'Enlightenment' (obtaining 'Tao') through 'Zen' or 'Chan' and Mandala, resulting from the arduous processes of Meditation and Individuation.

As much as the first two principles point to the nature of order (and the apparent beauty of nature, this third principle points to the nature of order, and the nature of beauty, and indeterminacy in our knowledge of truth, beauty and goodness. As such the third principle has ontological as well as epistemological significance.

Principles of Uncertainty and Indeterminacy of Modern physics, the contemporary science of Chaos (with sensitive dependence on initial condition), and non-Euclidian and fractal geometry with self-similarity principle, all point to fundamental fuzziness,

³⁶ Just when High Renaissance was achieved after a great synthesis of Christianity with Greco-Roman Classical culture in about the 13th Century, the Chinese had realized a great synthesis of Indian Buddhism with native Taoism and Confucianism which lead to Neo-Confucianism and Zen Buddhism. In this Neo-Confucian philosophy Yin Yang balance leads to a higher level of mutual integration and interpenetration, called Tai Ch'i, the great poles. Yin is containing Yang, and Yang containing Yin in it; the part containing the whole, and the whole containing the part; one in whole, and whole in one.

inherent indeterminate-ness of our knowing, and the world of mystery, that not logo-centric but aesthetic mind can experience better, or probably only new science of 'Ki' of East Asia or Super-Ring cosmology can explain.

Under this third principle, I group following interrelated aesthetic languages and design strategies:

- Positive / negative form integration and interpenetration:indeterminacy, uncertainty
- Anima and Animus Archetypes, (Masculinity with Femininity)
- **Reciprocity** and mutuality ('mutually arising')
- · Simultaneity / engaging ambiguity
- Surreality: and super/hyper-sensorial; transmodality (hearing wind and water, seeing silence); dreamlike imageries, fantasy evoking images; conscious and unconscious;
- Illusion³⁷,
- Allusion, Cultural memory, evolutionary genetic memory
- Image and text complementarity
- Meaning / content and clarity / spatial-formal organization
- Materiality and spirituality complementarity
- **Simplicity** in structure with **richness** in form: clarity of expression and richness of meaning, classic with romantic
- Inversion between indoor/outdoor, 'breathing in and breathing out'
- Energy-information complementarity: 'light' as well as 'heat'; enlightenment as well as excitement
- Function/meaning complementarity: meaning-fulness leads to conservation of materials and to a compensation for lack of material satisfaction
- Fogginess, fuzziness, sense of mystery in landscape
- Active negativism of Zen, 'Mu': negation of binary vision and distancing, focus on engagement and immersion, subject and object becoming one.

³⁷ Itoh, 1981



60: Interpenetration



61: Text and Image



62: 'Mu'



63: Clarity of Form/Richness of Meaning/Anima



64: Building-Landscape Complementarity



65: Allusion



66: Ambiguity between Indoor and Outdoor



67: Positive-Negative Form



68: Seeing/Hearing the Coolness, Transmodal)



69: Sensuality, Order and Disorder



70: Surreality



71: Allusion / Aesthetic Engagement



72: Geometric-Figurative Complementarity





75: Text & Image



76: Interpenetration





77: Seeing the Sound





78: Spirituality

79: Fuzziness

80: Interpenetration

• • •

I have not used all of these interrelated languages in my practice so far, nor did I develop these languages myself. Yet, I have learned through my practice that

- 1. These principles work;
- Form thinking and visual image still dominates in the majority of design practices today;
- Bureaucratic and corporate organizations and procedures, that are 'divided' and 'linear', often make it difficult to implement such integrative, process-oriented, and long-term design implementation.



81: Passage



82: Indoor-Outdoor Continuity

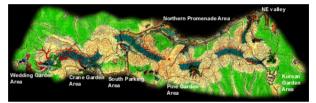




84: Territoriality / Permeability



85: Building – Landscape Complementarity Organic / Inorganic



86: Healing Design / Dragon as Metaphor of 'Ki'



87: Permeability / 'Mu'



88: Interpenetration



89: Order & Disorder / New and Old



90: Passage / Flow



91: Indoor-Outdoor Continuity / Immediacy / Juxtaposition





92: Void / Recycle / Circle

93: Community / Equity / Healing



94: Vertical Transition / Pleasure / Sensuality



95: Order & Disorder



96: 'Ki' Wall / Richness and Clarity



97: Fluidity / Figurative Form



98: Participatory Experience / Revealing



99: Regularity / Fluidity



100: Territorial Articulation / Porosity / Fibonacci

101: Participatory Experience / Frugality

Regretfully, many examples and imageries I have cited are perhaps architectural, rather than just landscape, traditional East Asian, rather than modern Western. This results partly from my own interest and experience of being both architect and landscape architect, practicing in East and West. It however results more fundamentally from the very nature of ecological/environmental aesthetics, which 'integrate' architecture with landscape, tradition with innovation, having more precedents in East Asian culture. We must also accept that there is perhaps at the moment more refined and articulate (if less relevant) language of such kind being developed in architecture and environmental and land art than in contemporary landscape architecture practice. Perhaps this lack of examples in the contemporary landscape most poignantly reveals the poverty of ecological aesthetics, or aesthetics of ecological design. It also reveals the lack of grounding the art of landscape in the science of landscape, as well as in emerging theories of 'aesthetics of engagement' and 'phenomenological aesthetics' of environment, place and nature.38

³⁸ I like to point out here that painters like Manet, and Picasso, pioneers of Modern art, explored the possibilities of different modes of representation, breaking away from 'perspective', and 'grid' in a way that resembled the discovery of non-Euclidian geometries towards the late 19th century (Harvey, 1992)

Conclusion

I have shown so far the possibility of ecological design with its own aesthetic language, and pointed out the 'Landscape Approach' emerging in architecture and urbanism.

Returning back to the two paradigms of culture: Western culture was occupied with logo-centric investigation of 'Being'. Eastern culture, however, had strived for aesthetic realization of 'Non-Being'. If the West believed in the presence of immutable substance, the East recognized constant changes and all encompassing Ch'i. The West sought to grasp reality by means of 'clarity'; the East sought aesthetic participation amongst 'chaos' and 'ambiguity'. Whereas the West believed in 'historical development' through a 'dialectic' process, the East believed in the cyclic balance of 'Yin-Yang' as essence of creativity.

It is also in ecological (design) principles (of conservation and creation) and aesthetic languages (raising the level of environmental connectedness and ecological function) that I see the creative integration of West and East, of 'Landscape of Mind' and 'Landscape of Heart'.

In the end, the crucial questions are then: "Should we seek clarity at the expense of meaning and richness?" Or, "Should we Dutch landscape architects stop looking inward at the 'mirror of reality' and instead look outside, beyond the dike, and globalize our vision?"

Now is a critical time in the beginning of the 21st Century, when the idea of landscape is emerging as integrative and cross-border concept, when landscape architects are emerging as leaders among environmental designers and planners. **Here** is also a unique place, the Netherlands, where the idea of 'landschap' has originated, and the landscape profession is thriving. And, here is a small but unique institution, where cutting-edge environmental sciences give us a strong basis for integrative and sustainable environmental architecture. This is why I feel committed, **here and now**, to a landscape approach to design, an ecological approach to landscape architecture, by combining rigor of ecological reasoning with imagination of creative architects.

Endnotes:

I. On Modernity and Why Modernity is Strong in the Netherlands?

Though I have no intention to repeat the well- known characterizations and shortcomings of Modernity in art and architecture, a brief summary seems to be in order here.

Modernity in art is defined by its 'self-referential orientation', and art for its own sake: Art is liberated from symbolic function, representing reality, and our cosmology. As such it pursued 'abstract' painting without pictorial as well as symbolic frame. Yet Modernity is also an extraordinary and ironic combination of the romantic and the classic, the revolutionary and the conservative.³⁹ Modernity in architecture continued this self-referential tradition, with focus on 'material', 'structure', 'form', 'space', 'function', 'proportion', 'scale' and 'geometry', and its own internal language of expression divorced from historical precedents and cultural codes. With its rationalism, attention to new construction technology, and interest in the social project of democracy and mass welfare, Modernity in architecture and landscape has done the following:

- Privileged design over construction: relegating the architect as designer to become 'image maker' and 'form maker'
- Continued to privilege the visual over the non-visual, particularly with the rise of photography
- Marginalized landscape, and simplified topography and environment
- · Neglected cultural context and social relevance
- Maintained elitist focus placing 'aesthetics', 'visual', over function and human satisfaction, distanced from how ordinary people perceive, behave in, and shape their daily environment.

As for Modernity in Dutch landscape one can recognize on one hand a conspicuous prevalence of Euclidian geometry in the rural landscape, as well as strong Modernist polemics in design publications in the name of 'Second modern', 'new modern',

³⁹ Harvey, p.243; Giedion, 1967

and 'Super-Dutch'.⁴⁰ Even though one can simply explain and understand the prevalence of Modernist formal language by recognizing the short term 'economy' and 'practicality' of Euclidian geometry in regard to drainage, irrigation, and land reorganization, of this relatively flat and wet land of soft soil. This straight line, this regularity in the land division and territorialization by dike is also related to both democratic ideals of equity as well as modern technology of aerial survey, and scientific positivism.⁴¹

To understand why Modernity is strong in the Netherlands seems to me a good way to also understand the Dutch mainstream of culture and architectural thought:

- Modernity is about reshaping: and Dutch landscape is about shaping and reshaping, not just conserving. Landscape is artificial; nature is culture here. Given the limited land, there is no room for conservation alone.
- 2. Modernity is about social realism even though its new towns and new architectural vision were Utopian and ideological. Dutch cultural and artistic tradition also appears to be about realism ('making art as mirror of reality'), particularly about middle classes' reality rather than elite classes' esoteric symbolism or superfluous refinement and embellishment.⁴² "Being ordinary is crazy enough" (they say). If it is practical, the functional, that is good enough. The practical, the functional, the simple, and the restraint have their own beauty in their own way, the Dutch believe. The society of mass culture cares more about the material condition of life, less about spirituality or aesthetics.
- Like Modernity in architecture itself, the Dutch is a very visually oriented culture. Its major contribution to European art is in visual art, and, of course, in

⁴⁰ Betsky, 2004; Lootsma, 2000/2003

⁴¹ as James Corner has observed correctly and convincingly in his book 'Taking Measure'. This point is further illustrated by Peter van Bolhuis in his book 'Invented Land', in which the land is represented from aerial view not from ground level, which is more relevant to our daily experiences. 42 Lootsma, 2004

landscape painting. This attention to vision seems to be further enhanced with the Dutch condition of natural light. That the Dutch is a 'visual' culture also seems to explain the Dutch's demand for clarity and knowability. (which is the premise of the Enlightenment project), as well as their so called 'Northern mode' of expression, which is inward looking, rather than outward relating to the cosmology, and which simply reveals what is there rather than symbolizing what is not there.43 Art in the Netherlands, as Betsky claims, does not refer to an outside context. The outside world is blocked behind dikes...The Dutch world is essentially interior.⁴⁴ This rejection of representation and symbolic connection to the outer world may perhaps be a selfperpetuating myth, and narrative of dominant polemics in this country: We shape culture and then culture, in turn, shapes us. Fact is that the Netherlands are now one of a few countries where Modern, Abstract Art is accepted. The Dutch world is said to be one "in which there are no hidden meanings or unseen places".⁴⁵ According to Betsky, this Dutch insistence on a "clear and clean visual organization", rather than expressive or symbolic representation, is a cause for "Dutch success on an international scene." I find this particularly true in mass publications, whose readers care less about local, culture-specific means, have little means or interest in reality checks, and opt for transferable abstraction and consumable images.

4. The Dutch created historically something out of nothing. This begets abstract art, and modernist design, in Betsky's view.⁴⁶ They did not have their own resources, but created value out of resources elsewhere, in former colonies, and now in other parts of the world. They import and repackage and create value. This packaging requires 'imaging' and 'reimaging'. Likewise, the Dutch made 'some land' out

⁴³ Betsky, 2004, p.164

⁴⁴ Betsky, 2004, p.146,148

⁴⁵ Betsky, 2004, p.146

⁴⁶ Betsky, 2004, p.358

of 'no land'. This engenders the artificiality of landscape, and faith in human power. Modernity, too, believed in inventing a new reality, and selling the images, superiority of human power. Architecture of Modernity is then autocratic art, which is now in the process of cultural consumption, rather than cultural production, an art the rich can afford, an art that serves as status marker.

- For a small nation to maintain a high living standard 5. and quality environment, the Dutch placed emphasis on 'top down organization', 'social engineering', and 'community over privacy', 'economy over freedom' policy. This translates into the public's relatively high trust in government, professionals and experts. The positive side of this is the presence of comprehensive. strategic, long term design, and pervasive presence of designed structure and objects, tidy and clean environment. The negative side however is, that designers of this culture maintained an 'authority of experts', paying more attention to internal peer evaluation and 'published images' than to user needs, and real post-occupancy evaluation, or invisible, but no less important, environmental issues. The vitality of Modernity in the country is then not separable from its long tradition of social democracy, State and institutional patronage⁴⁷, and from Dutch architects' ability to influence State policy (through such functions as State Architect and State Landscape Architect) as well. In a forthcoming market economy, this supply side logic may not apply anymore.
- As environmental pollution and energy crisis appear 6 to be generally taken care of, many architects tend to go back to Modernist language, searching new distinction, new freedom, and ego expression, rather than raising through their architecture new awareness of nature. One must realize that the Netherlands, like many advanced nations in the world, have exported polluting industries to developing countries, and consume more than their fair share of non-renewable resources imported from those

⁴⁷ Harvey p.22

countries. Should the knowledge that almost half of the world population lives with about two Euros a day affect our approach to design?

- 7. Dominance of civil engineering and agricultural land use planning approach in which the engineers dominate the planning and design process, as Vroom noted, also left telling influence in the landscape.⁴⁸ Would this continue in small and medium scale design, or for clients who want more than images and reasons, and who assert their values and aspirations?
- 8. Modernity, of course, has its deeper root in Christianity, and the Enlightenment Project: man controlling nature; art is, by definition, the artificial and dissociated from science and nature. In this culture there is relatively deep mistrust and fear of nature as well as human nature. Piet Mondrian is a case in point. He is said to be famously "irritated" by nature. It was said to be his "fear of an old love, his fear that the charm of nature would distract him from his rigorous artistic journeying."⁴⁹ And yet, it is he who is the quintessential symbol and source of Dutch modernity.
- 9. Fear of Nature, more particularly fear of flood, or deluge, is of course deep and real in the psyche of the Dutch, for obvious reasons. Fear translates into will-to-control. Clarity in Dutch landscape is valued perhaps also because it symbolizes things-under-human-control, man-over-nature. In a war situation, clarity and ability to see further provides survival and strategic advantages. But nature and reality are not always clear. Fluid dynamics (of water and air) certainly do not like nor validate Euclidian geometry. But when nature is perceived as threat to existence, the story is different.

In the Netherlands, though, the straight lines and forms of Euclidian geometry can function, meet practical ecological requirements, and still appear picturesque given the vast

⁴⁸ Vroom, p.314

⁴⁹ Brown, J., , p.19

amount of sky, special northern light, soft soil and flat topography that we experience. This Euclidian geometry as visual image, however, fails to communicate to the public the contemporary environmental process as we know of, the sensitive chaos, fractal, and self-similarity in the fluvial process and form, the mystery of the unknowable, and the fuzzy nature of our cosmology. Modernist landscape architecture of such geometry thus fails to represent this contemporary scientific view of reality, and neglects the cultural function of (landscape) architecture as representation of new world views, and the capacity of landscape design to help people embrace nature. Thus it ends, ironically, its own claim to become an art in a suicidal way.

Yet, Vroom expresses serious reservation against introducing 'quasi-natural images' in large-scale intervention. His statement perhaps captures Dutch sentiment correctly:

"The Dutch landscape expresses a centuries' old and successful battle against natural constraints. Nature has been subdued ... and remnants of formerly existing vegetation and wildlife are carefully nursed. ... A policy to reintroduce (quasi-) natural images by means of large-scale interventions along our rivers ... will result in falsified images. Any attempt at make-believe worlds, whether in the shape of human made natural environments or historic show pieces, creates fake landscapes that deny the existence of national culture".⁵⁰

Modernity in landscape, particularly the rational planning and equitable division, and Euclidian geometry of agricultural civil engineering, is acceptable in such large scale, strategic agricultural, and infrastructure planning. Yet, in the landscape, architecture and city of human experience, for ordinary people on the street, in the design for repair of nature, for ecological economy of the environment, for the design for the pleasure of engagement with environmental processes, awareness and emerging cosmology, Modernity must be recognized as once again a peculiar Western fantasy, or self-perpetuating myth. On the other hand, ecological design must not be for 'quasi'-natural image or make-believe worlds, but rather affording and

⁵⁰ Vroom, p.308

enabling the people directly and personally to experience nature at work.

II. Why is Ecological Design and Approach not yet Well-Accepted?

There are many simple reasons why ecology must and can be the basis of Post-modern landscape architecture. For one, ecology, among all the contemporary environmental sciences, is most holistic (inclusive, dynamic, and non-linear in its outlook). Being a science, studying organism(s) in connection with biotic community as well as biotic environment, it has shifted its attention from 'form' ('morphology' or 'history') of organism and 'interaction', and 'interrelationship' between nature to organism(s) and its (their) environment, and 'succession'. Environment in turn goes itself through 'order through fluctuation', revealing 'dissipative structure' in a non-linear, selforganizing, creative and intelligent system process. Nature not only knows, but also creates. It regulates as well as organizes itself through non-linear open-ended process. Given the Greek origin of Ecology, Oikos, meaning habitat and environment, it is the most appropriate contemporary natural science available to us who are engaged with creating, changing and protecting the environment. Likewise, landscape ecology, a holistic science of landscape, is a natural basis of landscape architecture.

Just as I formulated 'ecological aesthetics', I am equally tempted to appropriate ecology as "aesthetic ecology". By this I mean artistic /creatively interpreted aesthetic as well as ecology being a very aesthetic science in that it involves field ,experience' of nature, and ,gestalt' understanding of natural process. It is to me poignant that van Gogh and other Impressionist artists went out into the field, (leaving the atelier) to express, and capture their experience of landscape and 'ordinary street life' and common beauty of gardens, and that the ecologists, too, left their laboratories to go out into the field and study nature in action, process, gestalt, rather than through dissecting, thus disturbing the life form, the very form they wanted to see. This happened just about the same time when non-Euclidian geometry was emerging.







103: Piet Mondrian

However, dualistic worldview (intellectual as well as ethical), existential insecurity coupled with anthropocentric arrogance and introvertedness, and designer's ego are all great obstacles in accepting and allowing nature to take its own form or negotiating with nature in a mutually arising, reciprocal way. In many aspects, the cultural conditions that favor Modernism are the same forces that resist ecological views, because the latter challenge the deep roots of Western historical/texted culture.⁵¹ However the resistance is more in our mind than in our heart. It is now time for us to seek a 'landscape of the heart' to let environmentalism succeed.

Frequently voiced reasons against ecological design and aesthetics include the following:

- Architects see them as exclusively conservative rather than creative;
- Designer's reaction against moralistic and fundamentalist rhetoric;
- · Lack of many memorable aesthetic/design applications;
- Reluctance towards critical intelligence and theoretical discourse (even anti-intellectual tendency) on the part of practicing architects, most of whom tend to be intuitive and atheoretical;
- Lack of deep and creative understanding of ecological principles both as science and philosophy;
- Cultural and visual-media conditioning which makes ecological design not looking sexy enough, in spite of its delight in embodied total perceptual experience, and which

⁵¹ Abram, 1996

favors visual clarity and visual economy, particularly in the very visual culture of the Netherlands;

 Lack of advanced design tools to simulate and create total perceptual environments and represent fluid, complex and changing form and dictate of rulers (e.g. Hundertwasser bent rules) particularly before digital technology became widely available to document conditions, simulate and communicate dynamic processes as well as multi-sensory aspects;



104: Friedensreich Hundertwasser

- Western concept of art as deeply man-made, artificial, as opposed to natural, and its aesthetic theory explains artistic beauty and creativity, but is not able to explain those of nature;
- Search for instant and immediate gratification rather than gratification through participation, cultivation, dwelling over time, through system maturation and 'seasoning'. Landscape takes time, and is time;
- Tendency to brand ecological thinking as 'romantic', 'unrealistic', 'sissy' or 'passive' thinking;
- Prevailing aesthetic concept of beauty which privileges vision, form (rather than content), 'disinterested contemplation' and aesthetic distance;⁵²
- Tendency to look at environmental problems as nonarchitectural issues, or as high-class issues, and believe that aesthetics should be separate from ethics and ideology;

⁵² Berleant, 1993

- Fear of analysis-paralysis and lack of creative imagination to build upon scientific truth and 'economy of nature' which ecology is, rather than 'economy of man';
- Practical mindset of architects: "does it matter what language/style/form we use as long as it works?" or "is not strategic thinking more important than aesthetic language?"
- Disillusion with many unsuccessful stylistic changes and polemics (Post-modernism; deconstruction; late modern...), and tendency to frame 'ecological thinking' as one of those many transient trends and styles;
- Aversion against any grand totalitarian, unifying narrative in light of the failure of Modernism, and socialist politics.

Still, Dutch culture is a very frugal middle class culture, which is compatible with ecological aesthetics of "voluntary simplicity", recycling, and repair. If landscape/architects are willing to forego instant fame and visibility, and attain the modesty of true Dutchmen, they will accept that landscape architecture is not about image; that creation is not possible without conservation.

Charles Jencks is a Scott who has been a prodigious writer on Post-Modernism in architecture, ever since his widely read book in 1973, *'The Language of Post-Modern Architecture'*.⁵³ I have somehow always been very critical of his historicist, conservative, revisional approach, his apparent superficial eclecticism, and his non-committal acceptance of many trends in architecture in the name of pluralism. Looking at architecture as language and signs, the issues he addressed did not include, in my view, the pressing societal and cultural issues, pervasive environmental degradation, and human alienation from nature, landscape and environment.

In his recent publication, however, more than 22 years later, of *'The Architecture of the Jumping Universe'*, he now confronts the core and fundamental issues of architecture: the new cosmology and architecture's cultural function of representing

⁵³ Jencks, 1995

the new reality. In the concluding chapter of this book, he lists the implications of the new cosmogenesis for architecture. As I find them supportive of my ecological pursuit, I quote some of them here:

- Building close to nature and natural language
- Representation of the basic cosmogenic truth: selforganization, emergence and jumps to a higher (or lower) level
- Architecture should acknowledge the time and its compelling agenda, which include the ecological imperative and political pluralism
- It should have a double-coding of these concerns with aesthetic and conceptual codes
- Architecture must look to science, especially contemporary sciences.⁵⁴

I cannot resist a temptation to speculate that this surprising turnaround may have as much to do with his appropriation of landscape, i.e. marriage to a landscape architect, as with his own intellectual maturation.

Is it not time for us landscape architects too to confront this Jumping Universe?

⁵⁴ Jencks, 1995, pp 167-169

Bibliography:

Abram, David; *The Spell of the Sensuous: Perception and Language in a More- than-Human World*, Vintage Books, 1996

Bateson, Gregory; *Steps to an Ecology of Mind*, New York, Ballentine Books, 1972

Berrizbeitia, Anita and Linda Pollack; *Inside/Outside: between Architecture and Landscape*, Gloucester, Rockport Publishers, 1999

Berleant, Arnold, "The aesthetics of art and nature," in Salim Kemal and Ivan Gaskell eds.: *Landscape, natural beauty and the arts*, 228-243, Cambridge University Press, 1993

Betsky, Aaron, with Adam Eeuwens; False Flat: *Why Dutch Design is so Good*, Phaidon, 2004.

Bolhuis, Peter van; *Het verzonnen land, The Invented Land, A bird's-Eye view of Dutch landscape architecture*, Uitgeverij Blauwdruk, 2004

Brown, Jane; *The Modern Garden*, London, Thames & Hudson, 2000

Cartwright, T.J.; "Planning and Chaos Theory", in: *APA Journal*, (Winter 1991), pp 44-56

Cohen, Yehudi A.; "Culture as Adaptation," in: Y.A. Cohen, ed., *Man in Adaptation: The cultural present*, Chicago, Aldine, 40-60, 1968

Conan, Michel, ed.: *Environmentalism in Landscape Architecture*, Dumbarton Oaks Colloquium on the History of Landscape Architecture XXII, 2000.

Cook, Robert, E.; "Do Landscapes Learn? Ecology's 'New Paradigm' and Design in Landscape Architecture", in: Conan, Michel, ed.; *Environmentalism in Landscape Architecture*, pp. 115-132, Dumbarton Oaks Colloquium on the History of Landscape Architecture XXII, 2000.

Corner, James; "Ecology and Landscape as Agents of Creativity" in: *Ecological Planning and Design*, p80-108, George Thompson and Frederick Steiner eds.; New York: John Wiley & Sons, 1997

Corner, James ed.; *Recovering Landscape: Essays in Contemporary Landscape Architecture*, Princeton Architectural Press, 1999

Corner, James, and Alex MacLean; *Taking Measures across the American Landscape*, Yale University Press, 1996

Deunk, Gerritjan; 20th Century Garden and Landscape Architecture in the Netherlands, Rotterdam, NAi Publishers, 2002 Dixon Hunt, John; Greater Perfections – The Practice of Garden

Dixon Hunt, Jonn; Greater Perfections – The Practice of Garden Theory, London, Thames & Hudson, 2000

Dramstad, Wnche E., James D. Osov and Richard T. Forman, Landscape Ecology Principles in Landscape Architecture and Land-use Planning, Harvard University, Island Press, 1996

Dreamscapes, A Catalogue of Installation Arts, Wageningen, Stichting Beelden op de Berg and Uitgeverij Blauwdruk, 2003

Fitch, James; *American Building: The Environmental: Forces that Shape It*, vol.2, New York, Houghton Mifflin Co., 1972

Frampton, Kenneth; Belated Manifesto, in: Architectural Review, September, 1999

Fukuyama, Francis; *The End of History and The Last Man*, New York, Avon Books, 1992

Giedion, Sigfried; *Space, Time and Architecture*, Harvard University Press, 1967

Gribbin, John; *Deep Simplicity: Chaos, Complexity and the Emergence of Life*, Penguine Books, 2004

Harvey, David; *The Condition of Post-Modernity, An inquiry into the origins of Cultural Change*, Blackwell, 1990

Howett, Catherine; "Systems, Signs, Sensibilities – Sources for a new Aesthetics", in: *Landscape Journal* 6, n.1, 1989, p 1-11

Itoh, Teiji; *Space and Illusion in the Japanese Garden*, New York, Weatherhill/Tankosha, 1981

Ibelings, Hans,ed., *The Artificial Landscape: Contemporary Architecture, Urbanism, and Landscape Architecture in the Netherlands*, Rotterdam: NAi Publishers, 2000

Jantsch, *Design for Evolution - Self-Organization and Planning in the Life of Human Systems*, New York, George Braziller Inc., 1975

Jencks, Charles; *The Architecture of the Jumping Universe*, New York, Rizzoli, 1995

Knuijt, Martin and others, eds; Modern *Park Design: Recent Trends*, 2nd Edition, Rotterdam, Thoth, 1995.

Koh, Jusuck; "Ecological Architecture and Korean Aesthetics", *Proceedings of International Symposium: Community and Environment*, sponsored by Korean Society of Architecture and Korean Institute of Architects, 1999. Koh, Jusuck; "Ecological Aesthetics", in: *Landscape Journal*, (Fall 1988) pp.177-199.

Koh, Jusuck; Bridging The Gap Between Architecture and Landscape Architecture, in: *Proceedings of the CELA Annual Meeting*, 1987

Koh, Jusuck; "Aesthetic Premises of Modernism and Post-Modernism in Architecture and Significances of Emerging Alternatives," in: Stephen Klein and others, eds., *Environmental Change/ Social Change*, Proceedings of the 10th International conference of Environmental Design Research Association, (June 1985)

Koh, Jusuck; Katsura: Why is it so beautiful?" in: *Landscape Architecture*, (September, 1984, pp 115-125)

Koh, Jusuck; "Ecological Aesthetics: A Synthesis of Phenomenological Aesthetics and Ecological Design," in: *Proceedings of the Association of Collegiate Schools of Architecture Annual Meeting*, Charleston, 1984.

Koh, Jusuck; "Ecological Design: A Post-Modern Design Paradigm of Holistic Philosophy and Evolutionary Ethic" in: *Landscape Journal*, v.1, n.1 (Fall 1982), pp76-84.

Koh, Jusuck; "Fantasy for Design and Design for Fantasy: Using Fantasy and Dreams for Symbolism and Creativity in Environmental Design," In: *Proceedings of 14th Annual Meeting of the Environmental Design and Research Association*, University of Iowa, 1981

Lambert, Audrey M; *The Making of Dutch Landscape, A Historical Geography of the Netherlands*, Academic Press, 1985

Lassus, Bernard; *The Landscape Approach*, Philadelphia, University of Pennsylvania Press, 1998

Lesnikowski, Wojciech G.; *Rationalism and Romanticism in Architecture*, McGraw-Hill, 1982

Lootsma, Bart; *SuperDutch: New architecture in the Netherlands*, London, Thames and Hudson, 2000 and 2003.

Lootsma, Bart; "Synthetic Regionalization: The Dutch Landscape - Toward a Second Modernity" in: James Corner ed., *Recovering Landscape*, pp251-274, Princeton Architectural Press, 1999

Matilsky, Barbara C.; *Fragile Ecologies: Contemporary Artists' Interpretations and Solutions*, New York, Rizzoli, 1992

Meyer, Elizabeth K.; "The expanded Field of Landscape Architecture", pp45-80, in: George Thompson and Frederick Steiner eds., *Ecological Planning and Design*, John Wiley & Sons, 1997

Meyer, Elizabeth K.; "The Post-Earth Day Conundrum: Translating Environmental Values in Landscape Design", PP187-244, in: Michel Conan ed., *Environmentalism in Landscape Architecture*, Dumbarton Oaks Publications, 1999

Moore, Charles, Mitchell, William J. and Turnbull, William Jr.; *Poetics of Gardens,* MIT press, 1988

Mostafavi, Moshen and Ciro, Najle eds.; *Landscape Urbanism, A Manual for the Machinic Landscape*, London, AA print Studio, 2003

Mozingo, Louise A.; "The Aesthetics of Ecological Design: Seeing Science as Culture", in: *Landscape Journal* 16, pp 46-59, 1997

MVRDV; Metacity, Datatown, Rotterdam, 010 Publishers, 1999

Odum, Eugene P.; *Fundamentals of Ecology*, 3rd edition, Philadelphia, Saunders, 1971

Olin, Laurie; "Landscape Design and Nature", in: George Thompson and Frederick Steiner eds., *Ecological Planning and Design*, pp 103-139, John Wiley & Sons, 1997

Olin, Laurie; "Form, Meaning and Expression in Landscape Architecture", in: *Landscape Journal* 7, n.2, 1988, pp 149-168

O'Neill, R.V. et al.; *A Hierarchical Concept of Ecosystems*, Princeton University Press, 1986

Piaget, Jean; *Biology and Knowledge: An essay on the relations between organic regulations and cognitive processes*, University of Chicago Press, 1971

Patteeuw, Veronique ed.; *Considering Rem Koolhaas and the Office for Metropolitan Architecture*, Rotterdam, NAi Publishers, 2003.

Pohl, Norfried; "The rediscovery of clarity in Dutch landscape architecture", in: *Garten + Landschaft*, (5, 6, 7/83) pp398-401, pp482-488, pp553-558

Prigogine, Ilya, et.al; "Thermodynamics of Evolution", in: *Physics Today*, v.25, nos.11, 12, 1972

Spaargaren, Gert, Arthur P.J. Mol and Frederick H. Buttel; Environment and Global Modernity, in: *SAGE Studies in International Sociology 50*, Sage publications, 2000.

Spellman, Catherine, ed.; *Re-envisioning Landscape / Architecture*, Barcelona, Actar, 2003

Spirn, Anne W.; *The Language of Landscape*, Yale University Press, 1998

Steinitz, Carl; "A framework for Theory Applicable to the Education of Landscape Architects (and Other Environmental Design Professionals)" in: *Landscape Journal* 9-2, pp136-143, 1990

Strelow, Heike ed.; *Ecological Aesthetics: Art in Environmental Design Practice*, Basel, Birkhaeuser, 2004

Thorne, James F. and Chang-Shan Huang; "Toward a landscape ecological aesthetic: methodologies for designers and planners" in: *Landscape and Urban Planning*, 21, pp61-79, 1991

Treib, Marc; "Must landscapes mean? Approaches to Significance in Recent Landscape Architecture," in: *Landscape Journal*, 14, no. 1 (1995), pp 99-101

Vroom, Meto J.; "Images of Ideal Landscape and the consequence for design and planning" pp 293-320, in: George Thompson and Frederick Steiner eds., *Ecological Planning and Design*, John Wiley & Sons, 1997

Vroom, Meto J. ed.; *Environments designed by Dutch landscape architects in the period since 1945*, Thoth, 1992, 1995

Vroom, Meto J.; "Modernism in Dutch Landscape Architecture, an Introduction", Unpublished Lecture notes, March, 2003.

Weilacher, Udo; "A new language in the landscape" in: Weilacher, Udo ed., *Between Landscape Architecture and Land Art*, Basel, Birkhaeuser, 1996

Wolsche-Bulmahn, Joachim ed.; *Nature and Ideology*, Dumbarton Oaks Publications, 1999

Wolschke-Bulmahn, Joachim; "The Native Plant Enthusiasm — Ecological Panacea or Xenophobia? *Proceedings of ECLAS Conference*, 2004

Wrede, Stuart and Howard Adams; Denatured Visions: Landscape and Culture in the Twentieth Century, New York, MOMA, 1991

Illustrations:

- 1. Netherlands Tulip Field, Postcard
- 2. Piet Mondrian, in:
- 3. Netherlands Tulip Field, Postcard
- 4. Korean 'Pojagi' Wrapping Cloth, Photograph by the author
- Atelier Quadrat, Kadeslandtongplein, Pilot 24, Koop van Zuid, Rotterdam, in: Deunk, Gerritjan; 20th Century Garden and Landscape Architecture in the Netherlands, p. 164, Rotterdam, NAi Publishers, 2002
- 6. Villa Lante, Italy, in: Steenbergen, C. and Reh, W.; Architecture and Landscape, Basel, Birkhaeuser, 2003
- 7. Katsura Rikkyu, Kyoto, Japan, Photograph by the author
- Vaux-Le Vicomte, France, in: Steenbergen, C. and Reh, W.; Architecture and Landscape, Basel, Birkhaeuser, 2003
- Stourhead, England, in: Rogers, Elizabeth Barlow; Landscape Design – A Cultural and Architectural History, p.286, New York, Abrams, Inc., 2001
- p.286, New York, Abrams, Inc., 2001
 10. Cartoon by J.F. Batellier, in: Harvey, David; *The Condition of Post-Modernity, An inquiry into the origins of Cultural Change*, p.18, Blackwell, 1990
- 11. Seoul, Korea, Photograph by the author
- 12. Mecanoo, Delft University Library,
- MVRDV, Expo 2000, Dutch Pavilion, in: Ibelings, Hans; The Artificial Landscape, p.161, Rotterdam, Nai Publishers
- Sven Ingmar Andersson, Museum Plaza, Amsterdam, in: Deunk, Gerritjan; 20th Century Garden and Landscape Architecture in the Netherlands, p. 170, Rotterdam, NAi Publishers, 2002
- 15. West 8, Schouwburgplein, Rotterdam, Photograph by the author
- Peter Walker, Kempinski Hotel, Munich, in: Weilacher, Udo; Between Landscape Architecture and Land Art, p. 210, Basel, Birkhaeuser, 1996
- 17. Martha Schwartz, Jacob Javits Plaza, New York, in: Berrizbeitia, Anita and Pollack, Linda; Inside Outside –

Between Architecture and Landscape, p.150, Gloucester, Rockport Publishers, 1999,

- 18. Koh, 1982
- 19. Robert Smithson, Spiral Jetty, www.robertsmithson.com/earthworks/spiral-jetty.htm
- 20. Seasonal Change, Postcard image
- 21. Byeongsan Šowon Confucius Academy, Korea, Photograph by the author
- Richard Šerra, in: Betsky, Aaron, with Adam Eeuwens; False Flat: Why Dutch Design is so Good, p. 103, Phaidon, 2004
- 23. Daitokuji Temple, Kyoto, Photograph by the author
- 24. Changdok Palace, Seoul, Korea, Photograph by the author
- 25. Sosoewon Poet's Villa, Kyongju, Korea, Photograph by the author
- 26. Claes Oldenburg, Button, Philadelphia, Photograph by the author
- 27. Knut Wold, Stone Sculpture, Sognefjell, Norway, in: Vakre Veger, p.131, Edition Topos, Callwey
- 28. Jungle World, Bronx Zoo, New York, Photograph by the author
- Peter Walker, IBM Japan, Makuhari Technical Center, in: Landscape-New Concepts in Architecture and Design, p. 52, Tokyo, Meisei Publications, 1996
- 30. Tadao Ando, Church-on-the-Water, Hokkaido, Japan, Photograph by the author
- Louis Kahn, Kimbell Museum, Dallas-Fort Worth, in: Berrizbeitia, Anita and Pollack, Linda; Inside Outside – Between Architecture and Landscape, p.87, Gloucester, Rockport Publishers, 1999,
- 32. Savanna, Georgia, Photograph by the author
- Tongdosa Temple, Korea, Photograph by the author
- 34. Maja Lin, Vietnam Memorial, Washington, D.C., Photograph by the author
- Katsura Rikkyu, Kyoto, in: Itoh, Teiji; Space and Illusion in the Japanese Garden, New York, Weatherhill/Tankosha, 1981
- 36. Patricia Johanson, Leonhardt Lagoon, Dallas, Photograph Courtesy of Patricia Johanson©
- Peter Walker, Center for Advanced Technology, Harima, in: Weilacher, Udo; Between Landscape Architecture and Land Art, p. 219, Basel, Birkhaeuser, 1996
- 38. Frank Gehry, Guggenheim Museum, Bilbao, Photograph by the author
- Maya Lin, Campus Lawn, University of Ohio, Cincinnati,
- Geórge Hargreaves, Guadalupe River Park, San Jose, in: Cerver, Ascensio; The Big Book of Environmental Design, p. 96, Barcelona, Atrium International, 2000
- 41. Wolfgang Christ, Tetraeder, Emscher Park, Germany, Photograph by the author

- 42. Tea hut, Katsura Rikkyu
- 43. Sculpture by Andy Goldsworthy, in: Earthworks
- 44 Alexandre Chemetoff, Bamboo Garden, Parc de la Villette, Paris, in: Berrizbeitia, Anita and Pollack, Linda; Inside Outside – Between Architecture and Landscape, p. 64, Gloucester, Rockport Publishers, 1999
- 45. Tuscany, Post Card
- 46. Makoto Sei Watanabe, Mura-no Terrace, Japan,
- 47. In: Schwenk, Theodore; Sensitive Chaos, New York, Schocken Books, 1976, Illustration 25
- 48 Sierra Club Calendar 2002
- 49. Haystacks, Photograph by the author
- 50. Morphosis, Diamond Ranch High School, California, www.pixelmap.com/dma_morph.html
- 51. George Hargreaves, University of Cincinnati Campus, in: Landscape Architecture 10/2002, p.123
- 52. Katsura Rikkyu, Kyoto
- 53. Photograph by the author
- 54. Freiburg, Germany, Photograph by the author
- 55. insertion
- Great Triangle, Nacza, Peru, Photograph by Mariyn 56. Strelow, Bridges. 1979 in: Heike ed.; Ecological Aesthetics: Art in Environmental Design Practice, p. 45, Basel, Birkhaeuser, 2004
- 57. Christo, Running Fence
- 58. West 8, Interpolis, http://www.west8.nl
- 59. Oikos, Acroville, Seoul, Photograph by the author
- 60. Tohokuji Temple, Kyoto, Photograph by the author
- 61. Ian Hamilton Finlay, in: Weilacher, Udo; Between Landscape Architecture and Land Art, p. 89, Basel, Birkhaeuser, 1996
- 62. 'Mu' Calligraphy, Photograph by the author
- 63. St. Marco Cathedral, Venice, Italy, Photograph by the author
- 64. Amphitheater Epidaurus, Greece
- 65. Silver Pavilion, Kyoto, Japan, Photograph by the author
- Alterra Research Institute, Wageningen, Netherlands, 66. Photograph by the author
- 67. Photograph by the author
- 68. Luis Barragan, Hazienda
- 69. Le Corbusier, Ronchamp Chapel, Photograph by the author
- 70.
- surreality Daitokuji Temple, Kyoto, Photograph by the author 71.
- 72. in: Frodi, Gerbert; Klimt, p. 8-9 Cologne, DuMont, 1992
- 73. Oikos, Acroville, Seoul, Photograph by the author
- 74. Photograph by the author
- 75. in: Rambach, Pierre and Rambach, Susanne; Gardens of Longevity, New York, Rizzoli, 1987
- 76. Business Mecanoo, Utrecht University, School, Photograph by the author

- 77. Sosoewon Poet's Villa, Korea, Photograph by the author
- 78. Ryoanji, Kyoto, Photograph by the author
- 79. Oikos, Garden, Seoul
- Mecanoo, University, 80. Utrecht Business School, Photograph by the author
- 81.
- Oikos, Garden, Seoul Oikos, Garden, Seoul 82.
- 83. Oikos, Acroville, Seoul
- 84. Oikos, Acroville, Seoul
- Oikos, Sangam Sustainable Housing, Seoul
 Oikos, Ulsan Park, Ulsan, Korea
- Oikos, Samsung Medical Center, Seoul 87.
- Oikos, Chereville, Ilsan, Korea 88.
- 89. Oikos, Garden, Seoul
- 90. Oikos, MBC Broadcasting Corp. Plaza, Taegu, Korea
- 91. Oikos, Garden, Seoul
- 92. Oikos, Garden, Seoul
- 93. Oikos, World Cup Park, Seoul
- 94. Oikos, Chereville, Ilsan, Korea
- 95. Oikos, Garden, Seoul
- 96. Oikos, Garden, Seou
- 97. Oikos, Acroville, Seoul
- 98. Oikos, Ulsan Park, Ulsan, Korea
- 99. Oikos, Ulsan Park, Ulsan, Korea
- 100. Oikos, Samsung Medical Center, Seoul
- 101. Oikos, Daewoo Apartments, Kyongju, Korea
- 102. Postcard, Vincent van Gogh Museum
- 103. Piet Mondrian
- 104. Friedensreich Hundertwasser, in: Hundertwasser Architecture, p. 309, Cologne, Taschen Verlag, 1997