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Dear colleagues, students and friends, I thank you for your presence today. I would like to start my talk with a question. Is there Landscape Architecture today in Europe, the Netherlands and at Wageningen University? If yes, what is it and what does it look like?

If Wageningen campus is any indication, there seems to be a landscape but no landscape architecture. There is architecture, some good and some bad. In spite of an excellent example of ecological and sustainable design given by the Lumen building, we are still constructing buildings like the Ecology Institute that give a bad name and aesthetic to sustainable design. It is an outstanding example of how scientific and material concerns alone cannot make a good building. And yet, I hear these buildings are getting awards.

There is a garden here at Lumen, but no landscape architecture. On the campus I see a dead tree, cold

stones poorly placed upon which nobody likes to sit, agricultural engineering ponds and ducks. There is, however, no landscape architecture. I am not talking about a fancy landscape but a simple everyday landscape that is educated and educating: a designed landscape, self-aware and self-conscious, embodying intelligence, demonstrating creativity, expressing humility and care. Let's say, for example, something like the eco-housing area of Monnikenhuizen. There is also little inspiring aesthetic here at Wageningen University, let alone an engaging community. The drawings and models of the new campus design displayed at the Forum building represent neither our human experience nor ecological processes. They are mainly a view of authority, top-down and distanced.

That will do. Just bread and cheese, Dutch style. What else can one expect from the life sciences university in a country where universities have no room for art? In the end, our campus landscape fails to become a learning tool, unable to express the 'world class agriculture university' it aspires to be. I am curious how much money our university is spending on this landscape compared to the buildings in it. is landscape architecture today? I mean not just as a community of professional practice but as an academic discipline at Wageningen University, in form of coherent thought in which design is served and complemented by research rather than the other way around. Perhaps it is disconcerting, yet I question what landscape architecture is and how we should define it as a respectable academic discipline, so that it might not lose its existential identity. Some might answer: it depends upon what we mean by landscape architecture. Though we might not have an agreement on this, it is important that we understand why we don't have agreement. It is time to ask such fundamental questions.

Landscape architecture in Europe is fragmented and heterogeneous. Unlike North Americans we have no uniform standard - few programs are comprehensive or balanced enough. The Wageningen curriculum too is incomplete and unbalanced in terms of art and science or design and engineering. Focused by necessity and history on regional and infrastructural design, our program hopes to provide a strategic curriculum for large-scale science-based design. Science however brings neither delight nor happiness. Though landscape architecture in Europe claims to cover planning, design and management, it is time to differentiate landscape architects from landscape planners, and landscape planners from spatial planners.

When I raise this fundamental question, what is landscape architecture, I do have other motives as well. I wonder why so many landscape designs look good in media but are disappointing in actuality? Why are there so few good campus and urban designs? Why are so many award-winning designs not liked by the public? Why are so many of our students, not able to design, opting to work for the government instead? What do we mean when we say good design and how do we know through mediated representation without field confirmation, monitoring and evaluation? In the absence of a shared understanding of landscape architecture and its design, discussions lead to disagreements and criticism is rarely made.

I profess, siding with Swaffield, that the core of landscape architecture is design and the core of design is theory. Such professing is what professors do. This position of mine is further affirmed by the fact that more than 85 % of our own students want to study design and work as designers.

In building architecture, however, planning is not considered an integral part of architecture; nor is an architect expected to cover management, or in this case, facilities management. But here in the landscape architecture program we have such broad coverage that we risk being superficial and insubstantial.

Yet given the nature of landscape and Europe's policy concern on cultural landscape (I am referring to Europe's Landscape Convention), landscape architecture in Europe does have a close relationship to planning on one side and management on the other. We landscape architects however rarely design and construct landscapes of that scale. By design inclusively and broadly conceived, such as a 'change in representation' (Simon 1981) or a mental scheme in which means to ends are laid out, we landscape architecture is design. Though landscape is everyone's concern, not everyone is entitled to call him/ herself landscape architect. It is in this context that one has to be apprehensive about what I call the 'shifting core and slipping foundation' of landscape architecture in contemporary European universities and practice (Koh, 2009). The discipline can be resilient and adaptive when it has a hard, clearly understood and commonly shared core. In the absence of such a core, the discipline can be unstable, inefficient and ineffective as a community practice of design and research. It can even appear outright defensive and confusing. It is simply difficult if not impossible to communicate what we mean if we don't mean what we communicate. Granted, landscape is an open concept and landscape architecture is evolving like all other disciplines. But we must agree on what we mean when we say 'landscape architecture' as differentiated from 'landscape'.

We can think of three different interpretations of landscape architecture: first, landscape architecture as integration of landscape and architecture (an ambivalent and opportunistic hybrid); second, landscape design approached as if it is building design; third, as a landscape approach to architecture conceived most broadly.

Any attempt at articulating landscape architecture today

demands that we examine if there is enough design or if there is a coherent and distinctive theory and method for design, such as the 'landscape approach to design' which I am about to discuss. Otherwise, we are only borrowing - often without realizing it - an architectural or painterly/scenery-making approach to design and practicing intellectual eclecticism. Articulating this landscape approach to design, however, forces us to articulate the meaning and nature of 'landscape' itself as well as the significance of landscape as a keyword in contemporary epistemology and culture (Koh, 2006).

Our behavior is influenced by our conception and image of the world. The language we use influences the way we think. The representations we employ influence and bias the outcome and evaluation of design. After all, both design and science work with representation, not directly with reality. Architect Louis Kahn said nearly half a century ago: "form is what, design is how; form is essential, design is consequential or circumstantial" (A+U, 1973). It is therefore time for us to talk about landscape as how: as a method rather than detached territory or knowledge domain. To formulate a landscape approach is then to confirm that a landscape approach to design exists as distinctive method from that of other disciplines such as architecture and planning or science of geography and ecology. Such search for a method is at once meant to reduce labor intensiveness in landscape design and to avoid a false understanding of design as simple idea sketches, a belief widely shared among planners and scientists at Wageningen University. Most of all it is meant to avoid sabotaging one of the core requirements of any respectable academic discipline: its own valid and useful theories and methods. Articulating a landscape approach to design is then articulating the presence of, and necessity for, a distinctive theory, method and representation of landscape architecture. At this point, we must remember that landscape is a double representation: that landscape seen, shaped and shared is not only a cultural practice of representation, and that landscape as scenery painting and visual representation is representation of a representation.

Even in the absence of a shared definition of 'landscape approach', environmental design professions have already taken this approach after realizing the limit of architectural and ecological approaches or policyoriented planning. One need only look at Dutch iconic structures like TU Delft Library, Avro TV station, and even housing in the image of vernacular barns as in Almere Buiten, to see the evidence. One can also see it in the Landscape Urbanism discourse or such book titles as "Landscrapers" (Betsky, 2005), and "Landform Building" (Allen, 2011). Architects like Zaha Hadid frame their somewhat willful and even decadently parametric design as 'architecture as landscape'. In fact such appropriations by architects either through rhetoric, gesture or physical design explains why Dutch architects have been receiving global attention and make Modernist design more palatable: by creating iconography integrated with landscape.



Accessible roof integrated with the ground TU Delft Library, architect: Mecanoo



Iconic architecture by familiar form Almere Buiten Housing. Architect: Liesbeth van der Pol



Raising landscape awareness VPRO TV Station, MVRDV



VPRO TV Station, MVRDV



Highway sound barrier Utrecht, architect: K. Oosterhuis



Iconic Design but lacking behavioral responsiveness Schouwburgplein, landscape architect: West 8



Formal design neglecting behavioral and contextual response, Museumplein A'dam, landscape architect: Sven Ingvar Anderson

# **Defining Landscape**

What is then this thing or event called landscape? How should this concept be framed, if indeed landscape as image is a framed view or special way of looking? Many have tried to define it, yet few have succeeded (Berleant 2011, Delue and Elkins 2008, Cosgrove 2006, Lepczyk et al. 2008, Lorzing, Jackson 1997, Palka 1995, Vroom 2006). The concept remains elusive and multifaceted, refusing to be closed. That its definition cannot be closed indicates that any scientific monopoly in its claim for knowledge is impossible. Whereas a discussion on the meaning of landscape is a hermeneutic one, the nature of landscape can also be discussed from various points of view including objectivist scientists of ecology, landscape ecology and geography. It can go so far as to become a philology. Interpretation and definition are grounded in culture, contingent upon situation, tilted by pressing social, cultural environmental and political issues of the time and place. The definitions that have been formulated are mostly instrumental and discipline-centered. The German Landschaft is more about shaping a community, whereas the French paysage is more about folklore, and English landscape

relates to the scenery of a detached gaze. American cultural geographer Meinig identifies ten different interpretations of landscape: landscape as nature, landscape as habitat, landscape as artifact, landscape as system, landscape as problem, landscape as wealth, landscape as ideology, landscape as history, landscape as place and landscape as aesthetic (Meinig, 1979). This interpretation points out the multifaceted nature of the concept.

The more one thinks about landscape, the more elusive this landscape becomes. J.B. Jackson observed this too in the later part of his life. Landscape is elusive because it is not something out there but in us; we are landscape, literally, figuratively and metaphorically. Add to this complexity the Chinese concepts of Sansui and Fengsui. Besides, Chinese medicine conceptualizes the human body as landscape - a paradigm that explains the intuition behind acupuncture and the herbal (ecological) approach to design, as well as the embodied experience as key in landscape aesthetics. In the traditional East Asian view, as in many other traditional cultures, landscape is less 'scientific' and more aesthetic, spiritual and poetic. A scientific approach has no better claim to truth than an aesthetic one, particularly where science has become more instrumental, built upon and perpetuating the instrumental and materialist view of nature. A scientific description of landscape and nature simply kills its spirit, including the 'spirit of the place'.

With the changing role of landscape and the new challenges faced by culture and society, our epistemology and theory of knowing follows suit. As the purpose of theory and conceptualization changes, landscape is framed differently. There is no need for a universal and meta-narrative. Landscape itself is, after all, local and locational. Our epistemology of landscape is location-contingent. This explains the interrelated rise of landscape on one hand and geography and ecology on the other.

Yet the lack of agreement or explication of each discipline's understanding of landscape - at least in the case of Wageningen University - can be problematic. Here, a scientifically tilted and management-directed (rather than design-directed) understanding is used to legitimize a scientific approach to landscape. What landscape is to scientists, however, is not necessarily what it is to artists and designers. Each discipline looks at it through their own eyes, framing according to their culture and purpose. Without a clear articulation of landscape and landscape approach, how can a chair group and education program of landscape architecture at Wageningen University be internally coherent and externally distinctive? How do we landscape architects and scientists communicate without shared meaning?

There are important cultural and historical reasons behind what we might call 'the rise of landscape' in contemporary scientific, critical, aesthetic and design discourses. The first is that landscape as cultural and phenomenological concept replaces or complements the scientific and dualistic concept of ecology. Landscape ecology during the last three decades incorporated cultural issues in its work on landscape management. Landscape ecology thus combined the spatial/ locational thinking of geography with the process/ system thinking of system ecology. Given that land in the English language is defined as land plus people, this development reveals to us that science too is recognized as a cultural practice and a mere representation and story. Second, landscape in the landscape approach in contemporary arts and design, however it may be understood, is foregrounded and becomes the center of focus. Landscape becomes the picture while architecture and cities become the frame. This is a significant reversal of the figure and ground relationship between landscape and architecture. Third, landscape is now understood as agent for change, a field of potential (Koolhaas, 1995), mat and matrix (Forman, 1995), thick surface (Allen, 2011), language (Spirn, 1998), and most of all body or embodied experience (Berleant, 2011). Landscape outside turns into landscape inside our mind and body. Landscape has become a concept unifying science with art, nature and culture, outside and inside, picture and poem, image and word, vision with story, object with context, space with time.

#### Agreements

Emerging agreements within the field of landscape architecture exist. Gained through reviewing publications of last three decades, they are the following:

1. Landscape is a culturally grounded idea and practice;

both culture and landscape are symbolic representations as much as physical and cognitive adaptations. 2. The pictorial tradition of landscape, and the view of landscape as scenery (Renaissance, English landscape, Baroque gardens), reflects and reinforces ocular-centric culture, the ideals and assumption of detached gaze and disinterested contemplation. It supports subject/object dualism and a false view of nature and landscape as inert matter.

3. Such dualism is no longer tenable in terms of contemporary epistemology, ontology and hermeneutics. It is irrelevant and ineffectual in dealing with today's environmental problems of both local and global scales. The idea of landscape as object and scenery-out-there becomes problematic.

4. Current trends in landscape architecture thought reflect the cultural/linguistic turn of landscape architecture in the 1980s. This followed from the scientific turn of landscape architecture represented by ecological design and planning in the 1960s and 70s, which in turn was preceded by the architectural turn of landscape architecture in the 1940s and 1950s. Until the 1950s one might say that the pictorial and scenic view of landscape, thus beautification and aesthetic tradition of landscape architecture (landscape meaning beautiful landscape) had persisted. This continued in spite of the fact that Frederick Law Olmsted chose to call himself landscape architect, thus catalyzing the beginning of the study of landscape architecture at American universities in the first decade of the 20th Century.

Furthermore, the multifaceted aspects of landscape that Meinig notes imply the following:

1. Landscape cannot be adequately described, understood, and designed by the scientific method alone.

2. Landscape encompasses a poetic dimension. Again, pems reach out to what science cannot; poetic insights reach inward whereas science looks outward.

 Landscape cannot be designed and represented adequately with Euclidian geometry, linear perspective, and isometric drawings: it requires fractal geometry and dynamic and multi-sensory representation as well.
 Given the diversity in the meaning and nature of landscape, no consensus will be achieved by the assertion of normative values of any particular discipline and scholarship. At this point, we should not confuse scientific method with science itself. Besides, science alone, as noted earlier, cannot bring us full truth. Applied science is not fundamental, and not about validity but about utility, though a strict dualism between theory and practice is no longer tenable. We landscape architects should therefore accept the legitimate role of an aesthetic approach to truth as much as we honor the logo-centric approach. We should remind ourselves of the fact that both science and art deal with representation instead of reality directly. To deal with landscape is to deal with landscape as aesthetic as well as science. As a matter of fact, landscape used to be a community practice, then became an aesthetic and pictorial concept before it became a scientific concept in the 19th Century rise of the field of geography, in Germany.

In spite of Euclidian geometry manifested in Dutch landscapes (due to poldering, social distribution of lots, normalization of agricultural lands, etc) which is conspicuous in Modernist architecture and urbanism, and the persistent concept of design as form-making ("Dreaming Postmodern Polder", Koh, 2005), we know that landscape design requires adaptive design, engaging aesthetics, open authorship, and parametric and indexical representations. These help us to make the invisible visible, the static dynamic and to create space integrated with time to become event and place. Making the invisible visible is as much an artistic endeavor as it is a scientific one. Design, in a landscape approach, thus becomes not just form-making but contextualizing and process-ordering.

## Articulating Landscape Approach

In the recent past I have made various presentations and publications to articulate the need for a landscape approach to design as being the core task of landscape architecture in Europe.

One useful way in which we can articulate a landscape approach to design as a distinctive and coherent method is by contrasting it against the architectural and ecological approaches. The architectural approach obviously matters because our discipline is named landscape architecture. The ecological approach counts because it has been the most coherent and relevant method until today, and constitutes the most scientific approach. While its theoretical and methodological articulation is lacking, the landscape approach is already being practiced in some architectural and urban design practices (Lassus, Mostafavi, Waldheim). I demonstrate this point later by showing examples in the various interrelated fields of environmental design as well as engineering, science and arts. All these examples support my claim that a landscape approach exists and its articulation is necessary and possible, particularly in the very field of landscape architecture.

## Landscape Approach vs. Architectural Approach

I now contrast a landscape approach against an architectural approach. When I say architectural, I generally refer to Western architecture of the Post-Renaissance periods, and more specifically to Modern architecture which is harder, materialistic and phallocentric.

A landscape approach accepts landscape as ecological, and poetic, scientific and aesthetic, as opposed to a formal and formalist approach (design as form-making

and form-revealing, conspicuous in the architectural approach). A formalist approach is in turn associated with culture as symbolic representation: a compositional approach privileges idea and mind (concept) over materiality and sense experience (body). A landscape approach, as I had stated elsewhere (Koh, 2008) accepts the evolution (rather than individual, egoistic and willful invention) of landscape as ideas, cultural practices, and community. It is an integrative, dynamic, evolutionary approach that seeks field immersion for complete, aesthetic understanding and leads to emergent design. In a landscape approach it is the experience of landscape and process that is designed, not form. A landscape approach creates embodied as well as 'eco-revelatory' design (Landscape Journal, 2003). Revealing landscape and ecological processes enables people to experience them in their daily life, feeling and learning what these processes do for them and their cities. None of these characteristics are found in an architectural approach, from Vitruvius to most contemporary mainstream architecture. An architectural approach remains geometric (rather than geographic) and anthropocentric (rather than contextual and environmental) in spite of the more recent parametric design and morphogenetic

approaches. More teleological or deterministic, an architectural approach is not ecological, evolutionary or adaptive. It is formal and spatial but rarely poetic. An architectural approach is a 'will-to-form' approach, its design and authorship closed (Koh, 2008). A landscape approach is landscape-centric, whereas an architectural approach is architecture-centric. While focused on landscape, a landscape approach still must lead to architecture in that it is/has design with intentionality, and embodied intelligence and creativity.

## Landscape Approach vs. Ecological Approach

A landscape approach is different from an ecological approach in that the former goes beyond the scientific by recovering both poetic and representational aspects of landscape as culture. Reflective of the critical philosophy of the 1980s, it recognizes the epistemological limits and artificiality of science as a form of narrative. As such, a landscape approach rejects ecological determinism or confining landscape to material reality, instead incorporating landscape as symbolic and poetic nature. If an ecological approach leads purely to the expression and revelation of ecosystem functions it is not much different from the mechanistic functionalism of modern architecture. A landscape approach frames this ecological process to be expressive of human care, meaning and values. Landscape is taken not just as (eco) logic but (geo)graphic, nor just as process/system but space/locality: not just for objective analysis but for community engagement, not just aesthetic but political as well.



Courtyard landscape representing succession University of Toronto, landscape architect: Michael Hough

# Landscape Approach in Practice

## A Landscape Approach to Art

The original meaning of the term landscape, as used in the Netherlands in the 16th Century, is illustrative: it did not signify the land but the painting of such a view of land. Yet before there was a (desire for) painting one can reasonably assume that there must have been an awareness and appreciation, among the people, of landscapes - of shaped and shared lands. The Chinese word 'sansui', too, means both landscape as physical/ perceived reality and artistic genre.

Unlike traditional landscape painting (both Western and Eastern), a landscape approach to art engages art or the artwork in the landscape physically as well as symbolically, placing art out of the galleries and museums. Art interacts with material processes and sensory phenomena of landscape, mutually articulating and complementing. Here, art becomes once again a means for human adaptation, just as was the case in the Lascaux cave paintings or Stonehenge. There, art was not about scenery or beautification. Rather, it was about relating to the land and even to the larger order of nature and the universe. It was about positioning humanity in the space and process of nature and culture.

Many works of ecological art, environmental art and land art are examples of a landscape approach. They either perform ecological functions or reveal the poetics of land. They raise our awareness of human's connectedness to landscape processes and nature's rhythm. They break the conceptual barrier between process and product, between nature and art. Such art is intended for more than being looked at: it becomes interactive with - and touchable by - people. It functions and performs: healing, conserving and repairing, revealing the process. Art approached this way often directly deals with science and environmental technology as subject matter. Such art transcends the concept of art for art's sake or the boundary between art and science. Contributing to the solution of environmental problems either by raising our awareness or proposing an alternative paradigm of art, a landscape approach to art thus restores the human and cultural relevance of art and even its sacred engagement with nature. A landscape approach to art is also related to

'happening' art in that creation is considered openended, not pre-composed. Chance happenings and improvisation are welcomed. It is related to performance art in that the landscape is expected to perform. Art produced by such an approach becomes a place, grounded in the landscape. Its aesthetic comes not from itself but from its performance with the landscape. A landscape approach to art even resembles body art in that it accepts sensuality and recognizes land as fecund and vulnerable body. It sees 'gazing' at the landscape as abuse of the female body.



Art in landscape Richard Long



Art as vehicle of landscape experience, performing ecological function Artist: Patricia Johanson



Art as frame of landscape Norway

## A Landscape Approach to Architecture

A landscape approach to architecture means conceptualizing architecture as a part of landscape. It positions the relationship with landscape both in terms of ecological and experiential aspects as important source of architectural value, aesthetics and creativity. Architecture thus becomes contextual and adds a poetic dimension to ecological architecture so that its design is not only sustainable within the material cycle but also integrated with the outdoors, respectful of vernacular and ordinary landscape and architecture. As architecture without an architect, much passive- and low-energy indigenous architecture, and even 'animal architecture', can be characterized as sustainable and poetic. It is an example of a landscape approach to architecture, in the sense that it is more contextual and community-oriented than egoistic and iconographic.

Architecture has many other ways to use a landscape approach. It can transcend the dictate of Euclidian geometry as an organizational tool. Instead, it becomes topological and fractal, supported by new digital simulation technology. It can transcend the binary thinking regarding organic as opposed to geometric form, or the simplistic association of sensuous lines with ecological design. A landscape approach to architecture expresses, rather than erases, the topography; it uses local material, skills and technology and responds to regional climate and light. It becomes terrestrial and earthly rather than celestial and heavenly. Such architecture shows attention to indoor - outdoor transitions and complementarity. Some Dutch architects demonstrate a strategy of 'building as an extended landscape', overcoming object-hood as well as ego and monumentality (Lootsma, 2000). Landscape is placed in the middle of architecture, as in the case of the Lumen building, or on top, in the case of the TU Delft library.

Instead of modeling natural form, architecture in such an approach allows for the revelation of formative processes of nature and landscapes. The digitally powered conception of 'architecture as landscape' and design of emergence by computational logic have made the bio- and geomorphic forms of recent buildings look and function more like landscapes. Here, form is not a priori, but a posteriori. What is designed is not final form but rules, not the look but the logic. Its surface and material are not inert, linear and mono-functional but alert, folded and multi-functional. Such architecture deals with fluidity and flux as much as change, growth, aging, and self-regeneration.

This approach leads to architecture as 'place' rather than 'space', as 'process form' rather than 'product form', emergent rather than constructed, event/moment rather than form of performance. It reflects a conception of site/land that is fecund, and landscape as creative agent. Its surface and skin (wall and roof) can be green, breathing, and self-organizing with smart materials and structures. It recognizes the symbolism and aesthetic effect of the juxtaposition and interpenetration of local, organic, time-laden geographic forms with universal, geometric, timeless forms such as the triangle, square, or circle. In a landscape approach buildings are not to be fully appreciated or complete without the landscape, because such an approach is usually imbued with the poetics and sensuality of the landscape. It not only contributes to the sense of place but becomes itself a living body. A landscape approach to architecture in summation is then about sustainable process and integrative experience.

Architects like Toyo Itoh, Renzo Piano and Glenn Mercutt, together with Kevin Roche and Frank Lloyd Wright offer many good examples of a landscape approach to design. Recent parametric designs among architects self-identify as 'architecture as landscape' in the case of Zaha Hadid. They are however far from sustainable in their use of materials and ecological processes, let alone being adaptive and open to community participation. In contrast, a simple design out of love and intelligence for a local school in Bangladesh, by the young German architect Anna Heringer, shows victory over decadent parametric design. Furthermore, it demonstrates how a landscape approach works for the poor as well.



Architecture framing landscape view Architect: Stefan Behnisch



Architecture integrated into highway noise barrier Architect: Mecanoo



Architecture framing landscape Byungsan Sowon, Korea



Architecture framing landscape Shisendo, Kyoto



Attention to groundline Sosoe Sowon, Korea



Architecture as a landscape structure Highway Noise Barrier, NL, architect: K. Oosterhuis



Sensuous poetic architecture Architect: Toyo Itoh



Architecture evocative of local climate and culture, New Caledonia, architect: R. Piano



Topographic architecture, attention to surface and tactile experience, Igualada Cemetery. Architect: E. Mirailles. Sosoe Sowon, Korea



Local materials and skills, climate-responsive Bangladesh School Architects: Anna Heringer and Eike Roswag

## A Landscape Approach to Urbanism

In addition to following landscape structure, function and process through urban design, a landscape approach to urban planning and design appears in terms of landscape urbanism, metropolitan greenways and ecological (blue and green) networks. Simple protection of mountain ridges and stream channels, securing equitable access to the landscape from various parts of the city, using landscape structures for climate adaptation and hydrological cycle and air quality, recognizing the network of habitats and patch matrix; all are enabled by a landscape approach to urbanism. Ecological urbanism plus poetics and culture and community lead to landscape urbanism where landscape is interpreted ecopoetically. In this regard, one can recognize that all cities in the world that are well-known for their beauty are the result of integration with land and water: Rio de Janeiro, San Francisco, Sydney, Amsterdam, Venice, or even small cities like Savannah, Georgia, or Boulder, Colorado, and even Isfahan in Iran.

Examples of a landscape approach to urbanism usually have a distinctive place identity, such as water urbanism

where the canal is the defining urban structure. City of the Sun (Heerhugowaard), Haverleij and Almere Buiten are some Dutch examples. Le Corbusier's Chandigarh in Bangladesh and even his new town proposal were legitimated by freeing the landscape as horizontal spread in spite of its harrowing architectural monotony and fascism. Frank Lloyd Wright's one-mile city proposal also gives primacy to productive landscape. Today landscape city, or 'City as Landscape' is a step beyond the park city, which is in turn a step beyond the garden city. A landscape approach to the city and urbanism implies an integration of city with landscape ecologically as well as poetically. A landscape approach to the city thus affords not only spatial and formal aesthetics but also the aesthetics of time and transformation. Kevin Lynch, in his book What Time is this Place, recognized the role of urban landscape, park and street trees in the experience of seasonal change and time.

A landscape approach to the city stands also on the recognition that the city and the landscape are functionally and ecologically integrated. This implies the reversal of the city-over-countryside relationship, recognizing instead their interdependency and



Euclidian form with sustainable process, City of the Sun, Heerhugowaard. Architect: Kuiper Compagnons



Early example of Green Network design Chandigarh, Le Corbusier

complementarity. Current discourse of landscape urbanism can perhaps best be positioned as a landscape approach to urbanism, where landscape is understood both ecologically and poetically as material process and territorial space. We see landscape urbanism then as an overdue extension of a landscape approach addressing the city itself as a part of the landscape. If and when we accept landscape urbanism as a case of a landscape approach to urban shaping and management, we can articulate ten distinctive characteristics of a landscape approach to urban design: integrative, generative, dynamic, strategic, land-economic, bottom-up, phenomenological, ordinary, Post-modern, and ecofeminist. (Koh, 2009, 2013).

Such a landscape approach to urbanism is then an integrative paradigm of thought and practice that finally breaks down the wall between the urban and the rural (the Latin word 'urbs', city, implying wall). Interfaces between the urban and the rural become porous the boundary line delineating city from countryside is in reality a zone in the landscape. Periphery and parameters rather than the center assume new importance as cellular membrane: a porous, integrating, and multifunctional entity of complexity and creative chaos.

A landscape approach to 'urbanism as lifestyle and culture' (Wirth, 1938) is similar to a pagan (naturalistic) approach as opposed to a Christian (supernatural) approach to the city- this is because Western culture has been more based on urban mercantilism with church and market forming the center, whereas Eastern culture is based on agricultural subsistence economies where both market and temple are often outside the city proper (Watts, 1970).

Recent landscape urbanism discourse cites Dutch examples. The Dutch debates about urbanism until now however have been in general "less about philosophy, theory and aesthetics and more about how the visionary and pragmatic may be combined" (Lootsma, 2000). As it is, landscape urbanism too is a 'speculative urbanism': not theory, but strategy. Like the texts of Rem Koolhaas, it serves narrative rather than scientific logic. Landscape urbanism can therefore benefit from the empirical grounding (or ecological and cultural understanding) of landscape, and needs to go beyond social critique and artistic perception. In this regard, credits are due to earlier writings of Ian L. McHarg, Michael Hough, John T. Lyle, and Anne Spirn as well as more recent landscape-ecological and industrial ecological research on sustainable design.

An inclusive and dynamic interpretation of landscape such as an eco-poetic approach offers a basis for a coherent theory of urban form and urbanization processa basis that current landscape urbanism discourse does not yet offer. Landscape urbanism must also incorporate more empirical studies of the contemporary discourse on smart growth and regenerative as well as participatory design. Many images in recent publications of landscape urbanism show fluid, topographic, 'formal' strategies. These explorations remain to be tested, their hypotheses and assumptions articulated.

The idea of 'Landscape City', compared to Garden City or Park City, finds its strength in 'Landscape' as metaphor for accessible and ordinary public place. If garden had been a metaphor for gated private paradise, eros and stewardship, landscape is also a metaphor for an open, 'practical paradise' - a shared eros, a land-ship as landfellowship. Here romance fulfils our inherent desire to connect to an expansive larger whole and to complete deep reintegration with one's self at 'home', 'oikos'. Landscape is our original home. In this sense the rise of landscape urbanism discourse implies a yearning for recovery of refuge lost at the expense of prospect, and of security lost at the expense of adventure. It also means recovery of the phenomenological and ecological connections between the 'inside' and 'outside' of the city. In this landscape approach to the city, the cliché image of park as a bounded, picturesque or pastoral mono-functional area is also challenged: landscape is not to be hemmed-in as a park but penetrates and underlies the city itself.

Methodologically, a landscape approach to urbanism is an integrative and regenerative strategy. A staging (rather than acting out) approach, it leads to performing of land and community. The urban designer here takes the role of composer rather than performer, catalyst rather than finisher. Design is no longer final and finalized; design thus becomes designing, an adaptive act over time through monitoring and management. Thus, the traditional separation between design and planning becomes blurred. Designing at the upper system can become planning of the lower system. Therefore, designers and planners using the landscape approach must show the ability to think and evaluate across scales of space and time.



Housing as villages in the landscape Haverleij, NL. Landscape architect: Paul van Beek



Daylighted water channel revealing landscape continuity Freiburg, Germany



Spatial structure allows water and landscape experience Borneo Sporenburg, Amsterdam. Landscape Architect: West8



Contemporary Dutch water city Almere Buiten



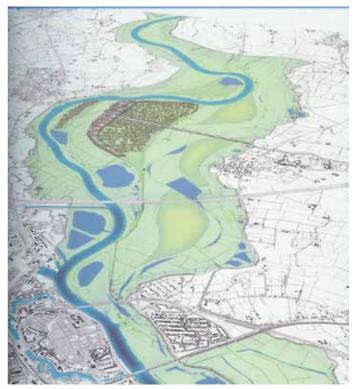
City integrated with the river Bamberg, Germany



Traditional water city Wuzhen, China

A Landscape Approach to the City and to Regional Planning and Design

Landscape itself is a unit within a region. A landscape approach to regional planning and design is by nature most appropriate particularly in relation to identity and sustainability. Instead of landscape being an easily changeable product of political, socio-economic, and technological rationalizations, each region is recognized to have unique bio-physiographical characteristics, with its own life and memory. Treated not as aggregate of private fenced-in property but as open community, landscape can become a unit of prescriptive planning much in the same way that an ecosystem becomes a unit of descriptive study in ecology. Patrick Geddes' landscape-based regional planning, Ian McHarg's ecological approach to regional planning, and the Dutch Casco, or framework, (Sijmons, 1991) planning are examples of such established practices. Likewise, Greenway planning based on integrated open-space systems or Dutch Ecological Main Structure planning based on landscape ecology are landscape approaches to regional framework design.



Landscape as water machine Room for the River, NL

A Landscape Approach to Infrastructure and Civil Engineering

A landscape approach to civil engineering means designing, building and maintaining infrastructures that utilize the ecological functions of the land instead of harming them. Eco-engineering and bio-engineering are applied for infrastructures integrated with landscape. These include multi-functional day-lit drainage systems as well as groundwater recharge, rainwater cleaning and storage, sewage treatment, erosion control, and slope and surface stabilization. Landscape itself, in this approach, is a primary infrastructure. Infrastructures functionally integrated with landscapes become sustainable, multifunctional and self-organizing with educational, aesthetic and even recreational effects. The use of appropriate technology, local materials and skills, and community labor leads to minimum dependence on imported energy, materials or technology, and constitutes a land-based, land-responsive engineering. Civil engineering thus can restore its civility towards nature.



Ecological repair of soil pollution WUR Master Thesis: A. Herrebout and G. de Vries



Naturalization of the dutch coast line WUR Master Thesis: I. Officer



Ecological retrofitting of engineered dike WUR Master Thesis: M. Sperling



Buiding and landscape as water storage. Monnikenhuizen, NL. Landschapsarchitect: Buro Lubbers



Bridge with local material and skill in a Bangladesh slum



New Orleans: Landscape as water machine. WUR Master Thesis: C. van der Zwet, J. van der Salm, P. Hermens



Ecological wastewater treatment West Point, Seattle



Ecological river water filtration Netherlands

## A Landscape Approach to Landscape Architecture

What does a landscape approach mean to landscape architecture itself, a discipline that covers design, planning and management? There was a time when landscape architects suffered from an inferiority complex relative to architects or engineers, which are larger communities with a longer history. In their effort to join the 'ranks of design', they borrowed architectural as well as artistic theory as a basis for their design principles. In doing so they sometimes fell in the trap of formalist 'ideas' and polemics rather than developing their own design methods true to the landscape itself. This is somewhat understandable as landscape architecture is also about the 'architecture' of landscape. Architectural rules, theories and principles, particularly those of composition, are frequently adopted for design of the land.

A landscape approach to landscape architecture starts with an understanding of landscape as a distinctive source of 'how'. Landscape is not a big garden, just as a city is not big architecture. Not only the scale but the nature of the problem differs. With a change of scale, so the method must change. This explains why landscape architecture includes design, planning and management. The smaller site can be designed; the larger region can only be managed if the intermediate scale can be planned. Perhaps this also explains why the degree of closure and completeness in design changes as it moves from designers' design to engineers' design and finally to planners' and scientists' design. Instead of positioning themselves behind architects and ameliorating damage to the land, this landscape approach calls not for an inside-out, top-down, colonial design but outside-in, bottom-up, evolutionary, and democratic design. The emphasis now is more on landscape than architecture, positioning landscape design both before and after architectural design in real life practice.

A landscape approach balances creativity with conservation, shaping with managing, and transcends both a compositional approach to design and a typological approach to design analysis. Instead of a formal type, a landscape approach models after process and type using nature's generative and adaptive strategies. It goes beyond an exclusive focus on the designer's landscape, and beyond stereotype, image,



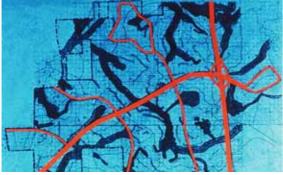
Restorative landscape allowing ecological succession Fresh Kills, New jersey. Landscape architect: Field Operations



Landscape replaces garden Sea Ranch, California. Landscape architect: L. Halprin



Poetic design revealing the Dutch 'waterlinie'. Rietveld landscape/Atelier de Lyon



Pioneering ecological storm drainage for housing development The Woodlands, Texas. Landscape architect: Ian McHarg, WMRT



Landscape replaces garden, Haverleij, NL. Landschapsarchitecten: Paul van Beek/ Grontmij



'Blue garden' De Eilanden, NL

or even normative concepts of landscape (such as the picturesque or the pastoral). It includes the ordinary and every-day landscapes as source of insight. Thus even mundane urban space is considered as landscape. In other words, it recognizes that every place is landscape and every experience is aesthetic. Going far beyond traditional feel-good beautification, this approach extends to farming and restorative strategies for the health and efficiency of large industrial and urban wastelands. It is in this old root of farming (or farming approach) that we can also position recent landscape urbanists' use of words such as 'cultivation', 'staging', 'conditioning', 'grounding', 'preparation' and 'seeding', or the increasing attention by architects to the concept of 'site' and 'siting'. This approach leads to a grown, cultivated, and open-ended form in contrast to the constructed, structured, and manufactured form of an architectural approach.

A landscape approach to construction takes time. A landscape approach is design for and with time. Thus, its design must remain open. Compared to an architectural approach, it is more mediate than immediate. It recognizes change and process rather than seeking permanence and monument. Yet, taking time is dwelling and experiencing the moment. We find the existential basis of architecture in the recognition that 'to be' is 'to build' as well as 'to dwell' (Norberg-Schulz, 1979). To dwell is then to have a home, and housekeeping; to dwell efficiently in landscape is to dwell as community, to take root in a place, to shape and care for the landscape.

Historically a landscape approach to landscape architecture implies the recovery of landscape from the margins of an architectural approach. The evolution of the concept of landscape can be summed up as the following:

 Landscape as spiritual cosmic engagement with nature (Stonehenge, cave paintings)
 Landscape as poem in China (11th Century)
 Landscape as adaptive shaping and clearing of the land and community (13th Century Netherlands)
 Landscape as picture, scenery and framed view (Landscape into art, Landscape as representation, 16th Century Italy, 17th Century Landscape gardens in bourgeois estates in industrializing England)
 Landscape as stage and setting (Symbolic Garden of Renaissance and Baroque of Perspectival Representation) 6. Landscape as Architecture and Modern art (Frederick Law Olmstead at the beginning of 20th Century and Modernist Landscape design)

7. Landscape as ecological (deterministic and equilibrium paradigm) and environmental scientific design and planning (McHarg's Design With Nature and Land Art movements of 1960s, Art into Landscape)
8. Landscape as cultural, poetic and social turn (poetic turn by Hargreaves and Valkenburg, linguistic turn by Spirn and Howett, social turn by Hester, cultural and spatial turn of ecology into landscape ecology)
9. What next? Landscape of New Science, Field Science, Emergent Ecology

How does a Landscape Approach change our Conception of Design?

In other words, what are the theoretical implications of such a method and what are some practical examples in various design fields?

In the English language the word design finds its etymological origins in designation - sign making - which

leads to privileging iconographic design for distinction and display. This neglects fitness with context, that is, blending in and harmony with the totality. Such a trend is further supported by Western cultural traditions believing in individual genius, authorship (authority and expert) or divine creativity on one hand and appropriating art, fashion and design as marker of social status and power on the other hand. In contrast to this, a landscape approach to design leads to design as weaving or pattern-making into the context. Design thus becomes less about standing out than integrating. It comes close to the Dutch word ontwerp and the German word Entwurf, design for technical and functional systems: less self-conscious about appearance, thus less willful. Design in a landscape approach also becomes adaptive and open, unlike in an architectural and 'blueprint' approach. Landscape itself is adaptive and open, thus it is natural that its design too remains adaptive and open. Design thus remains open spatially and processwise, and open to change by users over time and to adjustment after monitoring, particularly long term and large-scale designs in dynamic, uncertain and complex situations.

A landscape approach to design is design in and of the field. Not only does it require field work and a consideration of site characteristics and context, it also recognizes that land, soil, water, and all materials and ecosystems are not inert but sentient, intelligent and creative.

A landscape approach to design goes beyond the modernist preoccupation with space and territorial expansion and occupation. It leads to design for time experience: time cultivation, time taking thus dwelling, and above all momentary and unexpected time and chance happening. It leads to attention to pulse, breath and land as a living system, and our connectedness to it, concern for life/material cycles, and concern for healing and sustenance. It resonates with Tagore's poem, titled 'the Gardener': "Let your life lightly dance on the edge of time like dews on the tip of a leaf".

In a landscape approach, scale matters. A design must be examined to see if it works at smaller and larger scales, thus a design method is considered scaledependent. Designs that work at a smaller scale do not necessarily work at a larger scale. A sliding scale and zooming in and zooming out are important components of a landscape approach. They cannot be done well in Euclidian geometry and analogue representations but require fractal geometry and digital representation. Scale distribution matters because Euclidian geometry loses its complexity at a smaller scale. This explains why so much modern architecture and landscapes look good at a distance but are cold, coarse and slick when close-by, and why traditional and pre-modern buildings and cities with better scale distribution are humane and beautiful (Salingaros, 2006).

A landscape approach to design is designing as if it is a home, a dwelling and everyday experience rather than spectacle or showcase. It celebrates ordinary and everyday aesthetics and induces the discovery of beauty in simple things and events - a Zen approach. This aesthetic of everyday environments makes a landscape approach appropriate for democracy, an inclusive aesthetic that modest budgets can afford and a broader public can share. It is an aesthetic not for wow or showoff but to make us comfortable like old shoes or cotton underwear do. A landscape approach implies attention to ground surface, to the positioning of structures on the land, and to the logic of topographic sections and profiles. The ground line reveals the complexity of the topography of immediacy rather than fixating on the skyline - a distanced view which is the typical focus of architecture. A landscape approach is concerned with building footprints and ecological footprints.

Design with a landscape approach leads our eyes to the richness of textural variations as in Katsura and Chinese gardens in Suzhou. Our experience is directed to here and now rather than there and later; it is an aesthetic of earthly delight rather than heavenly experience, and a sense experience where body is recovered from the marginalization of mind.

A landscape approach to design, implying large scale and long term, requires integration with research to deal with the complexity and emergent nature of landscape as well as design. Design must be integrated with planning and management, respecting communication and appreciating the value of on-site monitoring, evaluation and adaptation. It must be prudent under uncertainty and indeterminacy. The tidiness of Dutch landscapes stems not just from Euclidian geometry but from the bureaucracy for constant management and caring communal engagement.

A landscape approach to design is to go beyond the Modern, perspectival, functional, and rational. To be perspectival is to be static and scientific - to be rational in this age of chaos is to be irrational. In contrast to the common definition of landscape as a 'landward view', this approach affords us not just the chance to look outward but also to look inward. Our act of going out there into the landscape very often results in looking into ourselves. John Muir said, "I only went out for a walk, and finally concluded to stay outside till sundown, for going out was really going in." Landscape is not just out there but in us. We breathe in landscape materially as well as spiritually, ecologically as well as poetically (Abram, 2011). In landscape, time is folded: there is no linear past, present and future. The future is in the past and the past is in the future. That is the meaning of fractals as well as the Fibonacci series.

To use a landscape approach to design is to use a network, web, field or mat (mater and matrix) as base concept. Landscape is a horizontal spread and thick mat and surface (Allen, 2011) - it is less about three-dimensional form or geometry than surface and time. Given the inherent heterogeneity of this horizontal surface and patches of this matrix, landscape design is more plan-based than 3D form-based. Plan is by nature synthetic and context-aware and as such more geographical than geometric. This makes landscape design less amenable to parametric and indexical design and representation than architecture. Ironically, however, parametric design in architecture is characterized as 'architecture as landscape' with its folds and aerodynamic design.

## What lies ahead? What is already here?

I have pointed out that landscape started out first as artistic practice and concept and later became a scientific and geographical concept in mid-19th Century Germany. Even today landscape defies scientific description let alone prescription. Landscape is not just visual but poetic, not just material but spiritual (not religious). I therefore call for an ecological and poetic interpretation as basis of landscape architecture. Landscape transcends the divide between science and art, as it does between object and subject. We are already living in the age of new science (new geometry, new geography and new ecology, where science becomes art and art becomes science). Landscape architecture in a scientific university can and must act for the holistic integration of the art of science with the science of art- the science of concrete with the art of abstract. Science divides and science often kills if conquering.

It is not that we should avoid being scientific, it is just that we should avoid old-scientific: reductionist, deterministic, instrumental and arrogant. There can be a science of design but there cannot be a scientific approach to design. That simply does not work. We should not confuse science with scientific method, and remember that the aesthetic approach is also a legitimate approach to truth. That is the wisdom of Classical China and Lao Tzu. We need to seek an ecology of emergence and a poetic of embodiment and engagement. We need to seek design of emergence rather than determination. Our goal should be creating aesthetics of immersion and integration rather than detachment and disengagement or aloofness. Whereas design will remain inevitably self-conscious and inevitably about being artificial, we need to design our landscape not only to embody intelligence and creativity based on sharing, love and acts of humility, and respect for the other. Our designs are also for nature, the poor and the future. As designers taking the landscape approach we need to realize that conservation and development or continuity and change represent two sides of the same coin, one incomplete without the other.

If landscape is the object of aesthetic experience par excellence, a landscape approach to design can be design method par excellence: integrative, dynamic, open, adaptive and humble. Art has once brought the landscape indoors, now art goes back into the landscape to be meaningful. Either way, both art and science were from the beginning motivated by engagement with nature and landscape - not to conquer but to adapt and co-evolve. We can study landscape and landscape architecture not just to make a living but to live fully: loving, learning, and creating. Landscape design should be about loving to create and creating to love.

Furthermore, landscape is a metaphor for the human body and the body is a metaphor for landscape. As such, a landscape approach to design must go beyond cosmetic beautification or remediation and strive for healing and making health criteria for aesthetics. Once design is conceptualized and practiced in a landscape way, we have a compelling reason that design be the core of landscape architecture. Our education should not displace design for planning and research. There is no way or reason to be successful if we lose our own core identity.

## Conclusion

Paraphrasing Louis Kahn's words "Form is what; Design is how", and Carl Steinitz's paper "Design is noun, design is verb", we can say "Landscape is what; Landscape is how". Both procedural and substantive knowledge of landscape are grounded in a landscape approach to design and an eco-poetic approach to landscape.

Articulating the meaning and nature of landscape is then our attempt to call attention to a landscape approach to design as theory and method. Such articulations are intended to give a new clarity and frame for not only our understanding of (de-, sub-)urbanization, but also for our cross-disciplinary search for an integrative and sustainable paradigm of design. Together with related design disciplines, landscape architects can develop the ability to design the city as if landscape matters, design space as if process and time matter, and recognize landscape's self-organizing body and morphogenic power. Furthermore landscape architects can take this new challenge as an occasion to examine our own disciplinary knowledge base, and as a call to contribute our share to the contemporary urban discourse and the science and art of the landscape city. This will enable landscape architects to contribute to building a city without treating nature/landscape as resource or commodity. Instead, we can model nature/landscape as source or community. Some call it nature mimicry. We can call it landscape mimicry.

Philosophically, a landscape approach transcends the false choice between teleology and environmental determinism, or between logo-centrism and aestheticism. Politically, a landscape approach to design is taken as a way to democratize design, rather than landscape being a simple territorial expansion beyond the culture of private gardens.

Ultimately, we need to realize a dynamic balance between architectural and landscape approaches and between program- and site-driven approaches. Here may exist both the ambivalence and richness of landscape architecture.

To part from this academia and to go out into the field (of practice) I remember the Indian poet Rabindranath Tagore, who wrote exactly one hundred years ago:

"The traveler has to knock at every alien door to come to his own... My eyes strayed far and wide before I shut them and said 'Here art thou!,' the question and the cry "Oh, where?' melt into tears of a thousand streams and deluge the world with the flood of the assurance 'I am!'" (Song XII, Gitanjali, 1913).

My dear students, colleagues, and friends, I hope 'you are' too. Thank you!

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## ON A LANDSCAPE APPROACH TO DESIGN An eco-poetic interpretation of landscape

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