

HAS LANDSCAPE ARCHITECTURE FAILED?

REFLECTIONS ON THE OCCASION OF THE 50TH ANNIVERSARY OF THE LANDSCAPE ARCHITECTURE FOUNDATION

Richard Weller and Billy Fleming

“A sense of crisis has brought us together. What is merely offensive or disturbing today threatens life itself tomorrow. We are concerned over misuse of the environment and development which has lost all contact with the basic processes of nature... A key to solving the environmental crisis comes from the field of landscape architecture, a profession dealing with the interdependence of environmental processes”.

McHarg, C. Miller, G. Clay, C. Hammond, G. Patton, and J. Simonds. 1966. “A Declaration of Concern.”

“Today, the mission to support the preservation, improvement and enhancement of the environment has never been more resonant. As the world’s population becomes increasingly urban and demands on natural resources more acute, landscape architects play an essential role in solving the complex, interrelated environmental, economic, and social problems we face today”.

Landscape Architecture Foundation Mission statement.

In 1966, Campbell Miller, Grady Clay, Ian McHarg, Charles Hammond, George Patton and John Simonds marched to the steps of Independence Hall in Philadelphia and declared that an age of environmental crisis was upon us and that the profession of landscape architecture was a key to solving it. Their ‘Declaration of Concern’ launched, and to this day underpins the workings of the Landscape Architecture Foundation (LAF), now headquartered in Washington.¹ Through its various programs relating to scholarship, education and leadership the LAF is fulfilling its founding mission to communicate *“the results of research, example and good practice”* and *“multiply the effectiveness of the limited number of landscape architects”*.² To mark its 50th anniversary the LAF will hold a summit titled “The Landscape Declaration” at the University of Pennsylvania involving over 60 leading landscape architects from around the world. Delegates are being asked to deliver new declarations (manifestos if you will) about the profession’s future. Drawing upon these statements, the LAF Board will then redraft the original 1966 Declaration of Concern so that it serves to guide the profession into the 21st century.

On one level, redrafting the declaration is relatively straightforward: it would simply need to stress the twinned global phenomena of climate change and global urbanization - issues which were less well understood in 1966. On another level however, the redrafting of the declaration is profoundly complicated, because if it is to be taken seriously then a prerequisite to doing so is to ask why, after 50 years of asserting landscape architecture as “a key” to “solving the environmental crisis” does that crisis continue largely unabated? Seen in this light the declaration can be read as an admission of failure. Consequently, we must ask if McHarg and his colleagues were justified in placing such a tremendous responsibility on the shoulders of landscape architects why we have we failed so spectacularly to live up to their challenge?

The immediate response is to discredit the question as a *non sequitur*; for surely the so called environmental crisis is too general and enormous for any single profession to “solve” and then be measured against. The environmental crisis is the by-product of the ways in which the industrial revolution (modernity) has spread globally, beginning with the Industrial Revolution in the 18th century and continuing on as capitalism exploits resources for profit and growing populations work to free themselves from poverty. This, arguably, is completely out of landscape architecture’s - or for that matter any other profession’s - control.

Be that as it may, many landscape architects subscribe to McHarg’s assertion- made repeatedly in his manifesto *Design with Nature* which soon followed the Declaration- that landscape architects are “stewards of the earth”. If that is so then they have a *prima-facie* responsibility to answer for the continued denudation of the planet since 1966.³ Even if we reign in the question of failure to something more tangible than the entire environment – say, land-use in North America - then landscape architecture still appears to have largely failed in mitigating the most basic elements and causal forces of environmental degradation. In fact, it is hard to think of any environmental topic which landscape architecture could claim to have substantively improved over the last 50 years.

In our defense, we might argue that landscape architecture is a very young and very small profession and an even smaller academy. We can also protest, as many do, that other, more established disciplines - such as engineering and architecture – have restrained our rise to environmental leadership. We can argue that the status quo of political decision-making makes it impossible for us to meaningfully scale up our operations and work in the territory where our services are needed most. These justifications (or excuses) all contain aspects of the truth but here, by way of self-reflection on the occasion of the 50th anniversary of the original Declaration of Concern, we inquire more fundamentally into the evolution of the profession’s theoretical basis over its life time. Via this route we will return critically to the original declaration and argue that landscape architecture over the last 50 years is less a story of abject failure and more one of a discipline taking the time that has been needed to prepare for a more significant role in this, the twenty-first century. Put another way, we aim to explore why the twentieth-century belonged to engineers and architects while making the case that the twenty-first ought to belong to landscape architecture.

The declaration’s authors described the solution to the environmental crisis by noting that *“there is no one-shot cure, nor single-purpose panacea, but the need for collaborative solutions. A key to solving the environmental crisis comes from the field of landscape architecture, a profession dealing with the interdependence of environmental processes.”*⁴ Three years later with the publication of *Design with Nature* McHarg explained how this was to be done. Seductively simple in both its message and its method, *Design with Nature* quickly became – and has more or less remained – the standard bearer of the profession. Messianic in tone, *Design with Nature* remains canonical in the literature to this day.

That McHarg would assign the role of ecological messiah to landscape architecture is not surprising. The architects of his era - reeling after the demise of the CIAM in 1959 - were preoccupied with remaking their stigmatized profession beneath the shadow of urban renewal

and were as yet unable to grasp the epochal significance of the relationship between urbanism and ecology.⁵ Alternatively, “[i]f landscape architecture embrace[d] ecological design and planning,” the narrative went, “then it has a leadership role to play in contemporary society.”⁶ McHarg placed little value on precedent, focusing instead on the nascent field of ecology, which he claimed could permit designers to “understand nature as a process...reveal causality...interpret natural processes as resources...and produce a plan based upon [those] processes.”⁷ The ecological method flowed from the landscape architect’s ability to establish the “fitness” of a design through verifiable and objective scientific data.⁸ Galvanized by *Design With Nature* and impassioned by the burgeoning environmental movement of the 1970s in general, landscape architecture educators the world over rallied to the cause by incorporating large scale (McHargian) landscape suitability analysis in their curriculums. This ‘good work’ had however the inverse effect of isolating landscape architecture from design culture in general and the potential of the creative process in particular.⁹

The proliferation of theory and practice that emerged in response to McHarg’s ecological method in the latter half of the twentieth century can be organized through the archetypal paradigms of knowledge production; that is, through the competing epistemologies of positivism and constructivism. Positivism –the notion that objectivity is possible, that knowledge is constructed through empirical deduction, and that such deduction could lead to generalizable Truths – constitutes the knowledge paradigm within which McHarg’s ecological method evolved.¹⁰ For landscape architects, this meant that “there was a design for the earth, which made it for every form of life that has existed, does now exist, and all imaginable forms in the future”¹¹ and that an intervention was “right when it [tended] to preserve the integrity, stability, and beauty of the biotic community.”¹² This form of landscape positivism evolved into the contemporary forms of thought and action known as landscape performance, in which the ecological function of landscapes is measured, optimized, and even monetized¹³; urban metabolism, in which broader urban systems are conceived as systems of stocks and flows to be measured and stream-lined¹⁴; green infrastructure, in which landscapes large and small are designed to deliver a suite of ecosystem services¹⁵; and to a lesser degree urban ecology, in which

the relationship between social and natural systems form a more descriptive than prescriptive field of study.¹⁶ Though these modes vary in their units of focus, methods of analysis, and definitions of what it means to be a high-functioning landscape, they share a common intellectual philosophy that mirrors the aims of stability described by sustainability. Put another way, landscape positivists argue that *the* solution is “out there” – finding it is simply a matter of empirical study and that relative equilibrium between natural and cultural systems is the aim.

Alternatively, Constructivism – the scientific philosophy premised upon the notion that objectivity is a mirage, that knowledge is socially and inductively constructed, and that such inductions have little relevance outside of a very specific context – constitutes the knowledge paradigm within which reactions to McHarg’s positivism emerged.¹⁷ By the 1980’s in the ‘deconstructionist’ phase of post-modernity, designers began to question McHarg’s prescriptive method asking: Design with *which* Nature exactly and according to whose values? Simultaneously, in practice the profession became predominantly involved in the design production of public, urban space; denatured places where McHargian land suitability analysis has only limited, if any applicability. In such places, phenomenological theories such as *genius loci*¹⁸ as well as attention to human behavior, aesthetics and innovative construction techniques were found to be more inspiring and more useful. During the 1980’s the sublime art work which emanated from a generation of so called ‘land artists’ was also brought to landscape architecture’s attention, reminding us of the historical depth and poetic potential of our medium.

In this vein in 1997 James Corner launched a critique that the “continual emphasis upon rational prowess – often at the exclusion of phenomenological wonderment, doubt, and humility – fails to recognize the very minor degree to which the combined landscape architectural constructions around the world have affected the global environment.”¹⁹ He argued that landscape architectural theory ought “...to find its basis less in prescriptive methodology and formulaic technique than in the realm of perception, phenomenology, and the cultural imagination.”²⁰ This is to say that the staggering complexity of social-ecological systems and the

inherent subjectivity of creative perception rendered McHarg's notion of design as evolutionary fitness moot; positioning the designer as more of an artful interpreter than a landscape scientist.

Corner's remarks echoed statements made a few years earlier by McHarg's nominal antithesis, the consummate landscape architectural designer Peter Walker. Responding to allegations of environmental disinterest in his work, in 1995 Walker expressed regret that²¹ "... we've been held up by our fellows as being somehow culpable, but actually we're a very small part of this whole problem".²² He pointed out that with their "parks" landscape architects only impact about 0.02 per cent of the earth's surface. Walker seems however to have missed the point: for whereas he used the profession's puny territorial impact to absolve it of any significant environmental responsibility, from the perspective of the LAF's founding fathers he provided the statistical confirmation of its abnegation. Landscape architecture can not ignore the fact that in the same time that it has produced designs for 0.02 per cent of the world's surface, the global conservation community under the auspices of the International Union for the Conservation of Nature has legally secured an extraordinary 15.3 per cent of the planet as protected areas.²³

This raises the crucial issues of landscape architecture's professional identity and its scope: for if we follow Walker's delineation that landscape architecture is a profession limited to the production of small, rarefied sites such as gardens, parks and plazas then landscape architecture is - as its name suggests - most akin to the high design discipline of architecture, not planning or environmental science. For Walker landscape architecture is a public art and as such the environmental crisis is not its yardstick. As such we have not failed at all. On the contrary, over the last 50 years we can see that landscape architecture's contribution to the subject of designing public space and creating 'a sense of place' in the wake of modernism has been a story of great success. In much of the the post-industrial, developed world, the transformation of the public realm into attractive, inclusive and multifunctional places by landscape architects has been perhaps the most salient feature of post-modern urbanism.

Walker also seems to be arguing that because our small works are negligible in comparison to the scale of the environmental crisis we would be mistaken to make environmentalism the primary rationale for their design. Here, of course he is defending his own aesthetic predilections for minimalism and formalism but since 1995 when he made his remarks, design culture has moved in a somewhat different direction. As Meyer points out in her 2008 paper *Sustaining Beauty: The Performance of Appearance*²⁴ the emphasis since 1995 has been to incorporate ecological flows, temporality (and therefore indeterminacy) into design projects as primary subject matter, irrespective of diminutive scale and other programmatic pressures. Meyer argues, or rather hopes, that such work is environmentally important because instead of depicting Nature as something "...“out there” separate from “here”—these works create an awareness that the ecological environment is here, flowing in and through human life and constructions”.²⁵

A more circumspect (not to say cynical) assessment would be along the lines that such works do more to placate than enlighten the public and that the profession’s propensity for aesthetic naturalism “here” conceals the city’s systems and its larger ecological violations “out there”. Nonetheless, as Meyer asserts, if landscape architects make a point of it and move beyond the pastoral or faux naturalism, it is possible that through their representations they can express changing ideas of Nature and our relationship to it. In other words, every act of landscape architecture, no matter how small, can in some ways contribute to the declaration’s environmental intent. The problem remains however that this work is materially insignificant when compared to the reality of the “crisis” of the human environmental footprint.

To try and broach this troubling discrepancy, what McHarg and later the *fin de siècle* landscape urbanists realized was that if post-modern landscape architecture was ever to transcend its history and be more than the design of gardens, parks and plazas in locations predetermined by others, then the profession needed to ‘jump the garden fence’ and somehow

take on the city as a whole. In the case of McHarg, following in the lineage of Patrick Geddes and Lewis Mumford this meant zooming out and placing the city in its regional context. This in turn inspired his methodological veneration of large scale landscape systems as the ideal determinants of urban form.

Describing the city as ‘God’s junkyard’ McHarg’s mission was in effect to try and control greenfield development – in a word sprawl²⁶. But despite the fact that his method of landscape suitability assessment is still operational and used routinely to this day, if the degree to which North American cities have sprawled over the last 50 years is the key indicator, then McHarg’s mission to redirect sprawl has resoundingly failed. Does this mean the method itself is flawed or have we as a profession failed to just properly apply it? The answer is probably a combination of both; for on the one hand the market for large scale planning dissipated as the century drew to a close, but so too, as critics such as Ignacio Bunster Ossa²⁷ and Andres Duany²⁸ have pointed out, by using landscape to preclude development sprawling in one place, you force it outwards into another. Alternatively, Duany and the New Urbanists argue that only more compact urban form, as one finds in pre-modern models of urbanity and not *more* landscape is the only way to contain sprawl.

Recoiling from McHarg’s positivism and New Urbanism’s reactionary, neotraditional aesthetics, in the early twenty first century landscape urbanists (Corner, Waldheim, Weller, Reed, Berger among others) began to reconceive of previously stable notions of the city, nature and landscape. Firstly, that thing called ‘the city’ as a bastion of culture opposed to nature was conceptualized reinterpreted as a ubiquitous and hybridized combination of both; a new condition Neil Brenner labelled as ‘planetary urbanism’. Secondly, landscape urbanists found themselves mainly working in brownfield situations where “the environment” or “nature” had to be re-invented, not simply protected. Thirdly, landscape urbanists, along with everyone else were enveloped by neo-liberal economic restructuring, against which state sponsored large-scale (master) planning, at least in North America, was increasingly ineffectual.

So, whereas McHarg had zoomed out so as to control and direct the city in terms of its bioregion, landscape urbanists, for better or worse, realized they had to 'get inside' the logistics of both shrinking and sprawling cities if ever they were to harness and redirect those forces toward more ecologically and socially just ends. Put simply, if they were to do more than just design post industrial parks and the usual repertoire of small public commissions, landscape urbanists had to also become urban designers and urban planners. As Charles Waldheim editor of the original Landscape Urbanism Reader²⁹ explains it “[l]andscape urbanist practices evolved to occupy a void created by urban planning’s shift toward a social-science model and away from physical design over the past half century, [and] as urban design committed to neotraditional models of townplanning...”³⁰. As such, according to Waldheim the landscape urbanist “assumes responsibility for the shape of the city, its built form, and not simply ecological and infrastructural exceptions to its architectonic structure. Rather, landscape thinking enables a more synthetic understanding of the shape of the city, understood in relation to its performance in social, ecological and economic terms”.³¹ It is no mistake then that Waldheim has, for the last decade or so, set about constructing a lineage of landscape architecture (via Olmsted, Wright, Hilberseimer, Branzi, Frampton and Koolhaas) which champions landscape architects as “the urbanists of our age”.³²

Substantiating this big claim has however proven difficult for the landscape urbanists; for not only have other disciplines not so easily given over the keys to the city,³³ but landscape urbanism’s own adherents have been largely unable to substantiate the movement’s urban design aspirations with built work. Certainly, landscape urbanists have been able to influentially demonstrate that landscape is an effective catalyst for urbanization and no longer just an after-thought in the development process but apart from isolated projects such as West 8’s Borneo Sporenberg in Holland and James Corner’s Qianhai water city in China it remains the exception not the rule that the landscape architect is the urbanist per se. Now after almost 2 decades of landscape urbanist discourse we can see large discrepancies between the theory and praxis. To date landscape urbanism has not been convincingly applied to at least three major forms of contemporary urbanization; megaregional decentralization, suburban and peri-urban sprawl and

exploding informal settlement patterns in the developing world. This is not to say that the theory is flawed, on the contrary landscape urbanism is well suited to these challenges but it seems hard to sustain the argument that landscape architects are the urbanists of the age when they have so little to do with its major twenty first century machinations.³⁴

In any event, hypothetically the question becomes what sort of city would landscape urbanists create if they could and in what way will it fulfill the environmental mandate of the original Declaration of Concern? The predictable answer is of course that they will create a green and “sustainable” city. Indeed, for much of the life of the Declaration of Concern, and especially since the Brundtland Report of 1987 “sustainability” has been a cure-all expression for everything the environmental crisis entails. In this sense, sustainability operates as a form of contemporary utopianism, literally a *utopos* meaning a good place, which is no place. Along these lines we argue that the sustainable city is an impossibility. It is impossible because it is predicated on a stable-state view of the world.

The world view that idealizes equilibrium, harmony and stability has roots in early twentieth century models of ecosystems, where it was thought that if left to their own devices natural systems tend inexorably toward stable climax states via the process of succession. During the era in which McHarg and the LAF envisioned such a harmonious relationship between humans and nature, mainstream ecological thought believed that systems could and should be stable if only we could remove human disturbance. The proper design and management of that relationship was simply a matter of correcting certain imbalances. But the science of ecology in the last 50 years has evolved away from the notion of stability and towards one of indeterminacy and resilience. Now, all of the ecological and physical sciences tell us that nature is chaotic, something we can only partially predict. If this is true, then how could humanity ever expect to achieve a McHargian balance with nature? Understood as a perfect end-state, sustainability is what systems theorists such as Donella Meadows describe as the ‘seventh archetype of systemic failure’: seeking the wrong goal.³⁵ In other words, it is not that landscape architecture has failed

to bring about sustainability – it is that sustainability is the wrong model!³⁶

In the wake of sudden chaotic events such as stock-market crashes, earthquakes and 100-year storm events resilience theory has emerged as a more realistic theory of environmental and cultural change. Unlike the teleology of sustainability, resilience theory stresses adaptation to constant change and the ability to cope within a certain range, with that change. One of the most attractive attributes of resiliency as a new design paradigm is that it also operates in full-recognition of its short-comings. It is also organized around the idea of coping capacity – or the ability of cities, people, and ecosystems to cope, persist, and co-evolve with change and disturbance. Rather than working deductively – as sustainable development principles might – to superimpose an image of “good” upon a place and then work to reshape that place in a preferred image, resilience theory works from the local asset base outwards.³⁷ For some this could be construed as sustainability without hope, a dystopia where the best we can do is calculate risk, but in its incipient stages as a theory of urbanism we prefer to think of it as design now getting closer to the way the world really works.³⁸

Considering our historical moment one is reminded of the incredible optimism with which the moderns announced theirs. In 1920 the great architect Le Corbusier launched his journal *L'esprit nouveau* with the declaration: “*There is a new spirit: it is a spirit of construction and synthesis guided by a clear conception ... A great epoch has begun.*” A mere 46 years later a small group of landscape architects would declare that epoch as one of environmental crisis. And now, precisely 50 years later as we acknowledge their original Declaration of Concern the International Commission on Stratigraphy is expected to formally announce the dawn of the Anthropocene Epoch: a new geological period defined by the fact that the earth’s systems are now fundamentally and irreversibly altered by human activity.

The philosophical and practical consequences couldn't be greater: in short, Nature, as Beth Meyer noted, is no longer that ever-providing thing ‘out there’, it is, for better or worse, the world we have created and the world we are creating. The landscape of the Anthropocene is one

of permanent ecological crisis. As such the Anthropocene is overwhelming, but since it is by definition a human creation, the Anthropocene is something we must take responsibility for, something we can *design*. This doesn't automatically mean the hyper modernity of geoengineering planetary systems but it does return us, humbly and critically to McHarg's concept of stewardship.

As sketched in this essay, from the last 50 years of landscape architecture we have 2 dominant epistemological paradigms; positivism and constructivism; and 3 models of professional identity and scope; the landscape architect as artist (Walker), the landscape architect as regional planner (McHarg) and the landscape architect as urbanist (Waldheim). Rather than see these as competing epistemologies and models cancelling each other out, perhaps what we have really learned from the last 50 years is that each is somewhat incomplete without the other. If however we make a concerted effort to combine these various paradigms and models we begin to give credence to the notion of landscape architecture as a uniquely holistic discipline, one especially well suited to engage with the contemporary landscape of planetary urbanization and climate change.

So has landscape architecture failed. Yes and No! The small discipline of landscape architecture may not yet have impacted vast territories but it should be acknowledged for its lofty ethical concerns and for ranging so far and so wide in its pursuit of a relevant professional identity. And if in that pursuit it has been stretched too thin across too vast a geography then rather than admonish it for failure, we see the last 50 years as a necessary process of preparation for this historical moment. For this is now landscape architecture's century – all the major issues of the times are at root about how we relate to land - and if by the end of it we are still small, weak and ineffectual, and if the world is a worse place than it is now, then we will only have ourselves to blame.

Authors Bios

Richard Weller is the Martin and Margy Meyerson Chair of Urbanism and Professor and Chair of Landscape Architecture at the University of Pennsylvania (PennDesign) and an LAF Board member.

Billy Fleming is a doctoral candidate in the Department of City Planning at the University of Pennsylvania, where he is conducting case study research on the use of natural features in climate change adaptation within cities along the Gulf and Atlantic Coasts.

Endnotes

¹ I. McHarg, C. Miller, G. Clay, C. Hammond, G. Patton, and J. Simonds. 1966. "A Declaration of Concern." Available at: <https://lafoundation.org/about/declaration-of-concern/>.

² See: <https://lafoundation.org/about/>

³ McHarg, Ian. L. 1992. *Design With Nature*, 25th Anniversary ed. New York: John Wiley and Sons.

⁴ I. McHarg, C. Miller, G. Clay, C. Hammond, G. Patton, and J. Simonds. Op cit.

⁵ B. Ryan. 2012. *Design after Decline: How American Rebuilds Shrinking Cities*. Philadelphia: University of Pennsylvania Press.

⁶ G. Thompson and F. Steiner (Eds.). 1997. *Ecological Design and Planning*. New York: Wiley.

⁷ I. McHarg. 2002. An Ecological Method. In S. Swaffield (Ed.), *Theory in Landscape Architecture: A Reader*, (pp. 38-42), Philadelphia: University of Pennsylvania Press, 41.

⁸ S. Herrington. 2010. "The Nature of Ian McHarg's Science." *Landscape Journal*, 29(1): 14

⁹ This rift between planning and design culture is more fully explained and described in: Weller, RJ., Stewardship Now? Reflections on Landscape Architecture's Raison d'être in the 21st century. *Landscape Journal*. 33-2 2015

¹⁰ N. Denzin and Y. Lincoln. 2005. *The SAGE Handbook of Qualitative Research*, 194-195.

¹¹ I. McHarg. 2015. Man and the Environment. In F. Ndubisi (Ed.), *The Ecological Design and Planning Reader*, (pp. 97-107). Washington, D.C.: Island Press.

¹² A. Leopold. 1949. *A Sandy County Almanac*. Chicago: Ballantine Books.. Chicago: Ballantine Books.. Chicago: Ballantine Books.. Chicago: Ballantine Books.

¹³ F. Steiner. 2014. "Frontiers in Urban Ecological Design and Planning Research." *Landscape and Urban Planning*, 125(3): 304-311.

¹⁴ P. Ferraro and J. Fernandez. 2013. *Sustainable Urban Metabolism*. Cambridge: The MIT Pres.

¹⁵ T. Eisenman. 2013. "Frederick Law Olmsted, Green Infrastructure, and the Evolving City," and M. Benedict and E. McMahon. 2006. *Green Infrastructure: Linking Landscapes and Communities*.

¹⁶ R. Forman. 2014. *Urban Ecology: Science of Cities*. Cambridge: Cambridge University Press.

¹⁷ N. Denzin and Y. Lincoln. 2005. *The SAGE Handbook of Qualitative Research*, 194-195.

¹⁸ Norberg Shulz

¹⁹ J. Corner. 1997. Ecology and Landscape as Agents of Creativity. In G. Thompson and F. Steiner (Eds.), *Ecological Design and Planning*, (pp. 80-108). New York: Wiley, 87.

²⁰ J. Corner. 2014. Sounding the Depths: Origins, Theory, and Representation. In J. Corner and A. Hirsch (Eds.), *The Landscape Imagination: Collected Essays of James Corner 1990-2010*, (pp. 47-76). Princeton: Princeton Architectural Press, 73.

²¹ Meyer, B. Meyer, Elizabeth K. 2000. The Post Earth Day Conundrum: Translating Environmental Aesthetics into Landscape Design. In *Environmentalism in Landscape Architecture*, Ed. Michael Conan, p 239. Dumbarton Oaks Research Library and Collection.

-
- ²² Walker, P , quoted in Meyer, Elizabeth K. 2000. The Post Earth Day Conundrum: Translating Environmental Aesthetics into Landscape Design. In *Environmentalism in Landscape Architecture*, Ed. Michael Conan, p 239. Dumbarton Oaks Research Library and Collection
- ²³ <http://www.iucn.org/?18607/New-UNEP-report-unveils-world-on-track-to-meet-2020-target-for-protected-areas-on-land-and-sea>
- ²⁴ Meyer, Elizabeth K. *Sustaining Beauty: The Performance of Appearance*. A Manifesto in Three parts. *Journal of Landscape Architecture*. 3 (1), 2008, 6-23
- ²⁵ Meyer, Elizabeth K. 2000 op cit 243
- ²⁶ McHarg's reference to "God's junkyard" comes from Peter Blake's book, *God's Own Junkyard: The Planned Deterioration of America's Landscape* (New York: Holt, Rinehart, and Winston, 1964).
- ²⁷ Bunster-Ossa, Ignacio F. 2014. *Reconsidering Ian McHarg: The Future of Urban Ecology*. Chicago: American Planning Association, Planners Press.
- ²⁸ Duany, Andres and Emily Talen. 2013. *Landscape Urbanism and its Discontents. Dissimulating the Sustainable City*. Gabrioloa Island, Canada: New Society Publishers.
- ²⁹ Waldheim, C. Ed. *The Landscape Urbanism Reader*. Princeton Architectural Press, 2006.
- ³⁰ Waldheim, C. *Landscape as Urbanism: A General Theory*. Princeton University Press, 2016, p 4
- ³¹ *ibid* p 4
- ³² *ibid* p 7
- ³³ Andres Duany, leading spokesman for the New Urbanism, along with co-editor Emily Talen effectively told landscape architects to get out of town with the publication of the book 'Landscape Urbanism and its Discontents. *Dissimulating the Sustainable City*'. Gabrioloa Island, Canada: New Society Publishers.
- ³⁴ There are exceptions to this. For example Kelly Shannon, a contributor to the original Landscape urbanism Reader has spent much of her career working on urban design and planning projects in Vietnam and more recently Alan Berger, also a contributor to the original reader has mounted a major exhibition arguing for engagement with suburbia. See MIT.
- ³⁵ D. Meadows. 2001. *Thinking in Systems: A Primer*. New York: Chelsea Green Publishing.
- ³⁶ C. Eisenstein. 2014. "Let's be honest: real sustainability may not make business sense," *The Guardian*, 08 January 2014. Available at: <http://www.theguardian.com/sustainable-business/blog/sustainability-business-sense-profit-purpose>.
- ³⁷ *Ibid*.
- ³⁸ The rhetoric of resilience is ascendant and quickly supplanting the notion of sustainable development as a framework for action in the fields of planning, policy, and design. This shift is evident through at least three major events: (1) the \$2 billion invested in the Rebuild by Design competition and the National Disaster Resilience Competition led by the U.S. Department of Housing and Urban Development; (2) the "100 Resilient Cities" initiative led by the Rockefeller Foundation to develop resilience plans in 100 vulnerable cities across the globe; and (3) the use of resilience as an organizing theme at recent gatherings of the American Society of Landscape Architects (2014), the American Collegiate Schools of Planning (2012), and the Urban Land Institute (2012).