

# The Nature of Design

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**Abstract:** *The discourse of Landscape Architecture has unwittingly, struggled to find a place for design within ecological processes since Frederick Law Olmstead proposed its professional establishment in the 1890's. This paper will summarize key components of the most recent wilderness debate and focus on the progress of ecological design over the last ten years. It will include a series of landscape typologies that attempt to engage in ideas of wilderness and explore ecology through design.*

*In the 1990's there was a resurgence of critical discussions regarding wilderness, which has largely influenced the thematic of Landscape Architectural environmental practice and design. The idea of 'wilderness' continues a binary, redundant division between humankind and nature. The attempt to preserve wilderness is misplaced given the changes characteristic of dynamic ecosystems. We tend to maintain or preserve wilderness areas attempting to arrest the dynamic processes, which are the underlying characteristics of ecosystems.*

*Landscape Architects have over the past 10 years have engaged in a myriad of projects which explore themes relating to wilderness and ecology. This paper will illustrate the following typological categories through an investigation of contemporary design precedents: Interpretation and Environmental Education, Eco-Revelatory Design, Environmental Remediation / Re-vegetation, Re-Use / Re-programming, The Art of Landscape Functions, Intertwining Ecologies, Constructed Ecologies, and Simulated 'natural' Attractions. Through this critical look at contemporary history, the paper will then assert directions for progressive ecological design.*

**Keywords:** *Ecological Design, Constructed Ecologies, Eco-Revelatory Design*

## Wilderness as label

Turner claims that Disney World in Florida is larger than one-third of the wilderness areas in the US. Outside the US there is little or no protection for the 11% of the earth that remains 'wild.' (Turner, 1998 p.619) With these types of statistics in mind, landscape architects have over the past decade engaged in a myriad of projects which explore themes relating to wilderness and ecology. This paper introduces, briefly, a selective history of landscape ideology in relation to contemporary, ecologically driven design practice; the resurgence of critical discussions regarding wilderness and nature among ecologists in the 1990's, land art and its impact on landscape architectural practice, and key concepts regarding nature in the history of practice within the profession itself. The paper then explores eight typological categories, which reflect critical design methods and ideologies, allowing a comparison of recent projects, and a critical review of design outcomes. Through this critical look at contemporary history, the paper offers and asserts directions for progressive ecological design. The conference theme: *The 200 Mile City*, implies that we as landscape architects need to examine our roles in shaping sustainable land practices be they environmental, social, and / or economic. This paper concentrates mainly on the area of contemporary ecology and design at a site level or in the sub-themed area of *New Environmentalism*.

In 1998 Marilynne Robinson concluded, 'We must accept the fact that the consequences of human presence in the world are universal and ineluctable, and invest our care and hope into civilization.' (Robinson, 1998 p.64) She positioned herself against the idea of wilderness because it has essentially diverted our attention from every environmental problem being a human problem. We relieve our consciences by making wilderness areas and thus, do not begin to tackle much larger environmental destruction issues. Guha states, 'the designation of wilderness in many parts of the world has led to the displacement and harsh treatment of the human communities who dwelt in these forests.' (Guha, 1997 p.277) He concludes quite simply that if we are to export and expand wilderness areas, it must be done with caution, care, and above all, with humility. Callicott proposes to rescue civilization by shifting the burden of conservation from wilderness preservation to sustainable development. He proposes to integrate wildlife sanctuaries into broader philosophies of conservation which mirrors Aldo Leopold's vision of mutually beneficial integrations of human economies and the economy of nature. (Callicott, 1989 p.79) This is representative of modern ecologists and their conclusions regarding wilderness and its continual separation from humanity.

Ecologists argue that the very idea of *wilderness* continues a binary, redundant division between humankind and nature, the attempt to preserve wilderness is misplaced given the changing characteristics of dynamic ecosystems. For

example, we impose political and economic boundaries that geographically define wilderness areas; however, ecosystems and natural processes are generally not confined to these artificial (ownership) boundaries. Unlike ecosystems which are process orientated and continually shifting as a part of the process, politically bound wilderness areas do not and cannot shift their boundaries. In addition, we also tend to maintain or preserve wilderness areas attempting to arrest the dynamic processes that are the underlying characteristics of ecosystems.

Perhaps, it is not the things we label as wilderness that are the problem, for nonhuman nature and large tracts of the natural world do deserve protection, but rather what we ourselves mean when we use the label. Wilderness in a conventional sense is also ethnocentric and causes us to overlook the effects of people on the land. Cronon asserts that, 'wilderness is very much the fantasy of people who have never themselves had to work the land to make a living. It can offer no solution to the environmental problems that confront us.' (Cronon,1995) Instead, by imagining that our true home is in the wilderness, we forgive ourselves for the homes we actually inhabit which pose a serious threat to responsible environmentalism. Further, *wilderness* as other promotes an idea that experience and wonder is limited to remote corners of the planet and it privileges pristine landscapes that we ourselves do not inhabit. If *nature* is essentially a cultural construct – can our concern for the environment survive our realization that its authority flows as much as from human values as from anything in nature that might ground those values? Clearly we need to fit alternative beliefs and realities of wilderness into a larger concept of land design that includes wildlife corridors, dynamic ecosystems, sustainable development, and mixed use zones. If ecologists are reconsidering the role of wilderness and nature in society, shouldn't landscape architects do so as well?

## **History and thematics influencing ecological design**

The next section of this paper examines briefly a history of landscape, from picturesque painting to land art, concepts of phenomenology, and aesthetics of processes. Idealized nature and picturesque landscapes were designed as follow on from traditions of landscape painting. Seventeenth century landscape paintings were imported to England from Italy where they were the predominant influence on English taste in landscape design. (Crandell, 1994 p.142) These paintings did not attempt to document places nor did they attempt to disguise cultural modifications. They were an attempt to portray subjects from classical literature and create a certain mood. They were also based on conventions for depicting landscape and on compositional techniques intended to make works of art more satisfying than actual places. They were an idealized nature, composed by artists in studios. The crucial point here is that eighteenth century landscape gardens, which have been the most influential force in the last two centuries of landscape design, were themselves based on pictorial conventions borrowed from these paintings. Pictures had power over what was designed and they also

shaped our conception of a composed and ideal nature. Landscape painting reached its naturalistic peak by the middle of the nineteenth century. The painterly conventions exhausted themselves and photography made them obsolete. In the late nineteenth century French painters called into question the over – sentimentalized, pastoral view of the landscape. Modern artists no longer produce illusions that attempt to convince us that they are natural views, instead they demand that actual experiences of landscapes are evoked or felt. Art broke with these representational conventions and idealized notions of nature while landscape architecture even today continues to embrace them.

In the late 1860's Frederick Law Olmstead supported the ideal that landscape architects were stewards of the land. Olmstead's designed landscapes borrowed aesthetically from the picturesque but he was overtly conscious of ecological processes playing a critical role in the function and design of landscape spaces. His designs for the Back Bay Fens in Boston, offer early insight into environmental remediation techniques for tip sites as well as a complex understanding and appreciation for wetlands and drainage systems. (Poole, 1994) The legacy of Olmstead which can be described as the marriage of the picturesque with environmental engineering is also an approach which continues today. Landscape architects continue to speculate how we can design with the materials of nature and not have the result be confused for nature itself. Beth Meyer asserts, 'To some it might seem odd that landscape architects looked toward art and design theory and practice when seeking direction about folding ecological principles and environmental values into their creative processes. But this simultaneous look to art as well as science and to theories of site specificity and phenomenology as well as ecology was critical to the successful integration of environmentalism into landscape architectural design.' (Meyer, 2002, p.191)

This next accounting of several types of land art, briefly positions key artists' and their interventions as exploring minimalist forms, ecological and landscape processes, entropy, and social concerns in the landscape. These themes re-emerge throughout the environmental work of landscape architects and are by no means exhaustive or even representative; it is merely illustrative as to what precedes and influences contemporary landscape architectural practice.

In the late 1960's and throughout the 1970's land art became a crucial means to explore landscape as a media. And while many land artists were content with investigating ephemera and landscape processes, others offered a critical perspective on environmentalism. For example, Dennis Oppenheim's Accumulation Cut in Ithaca, NY (1969) juxtaposed the artist's inscribed channel next to a naturally occurring drainage way. Oppenheim cut a 122x300 cm channel in ice with a chainsaw perpendicular to a frozen waterfall. (Kastner, 2001, p.44) Within twenty-four hours the channel in the ice had refrozen, expressing his interest in the total erasure of his intervention. In this period of his work Oppenheim looked at landscape as a material in its own right. He added, removed, or displaced local natural materials to create a sculptural form that

reflected an ethos of minimalism in its materiality, elemental geometries, and siting. His work reflected critical debates pleading for the public to recognize the value of landscape and its forces while combining cultural and natural processes.

Robert Smithson had a similar interest in minimalism and geometries as well as a desire to work within environmentally degraded sites. The Spiral Jetty, Great Salt Lake, Utah, (1970) located in an abandoned oil field, was derived from the local topography as well as relating to a mythical whirlpool at the center of the lake. The spiral form also reflects the circular formation of salt crystals that coat the rocks. (Kastner, 2001, pp.57 –59) The earthwork structure is hollow and is submerged underwater but periodically it re-emerges. The environment reveals and conceals the form, reflecting Smithson's interest in entropy and the inevitable transformative, dynamic forces of ecology. 'Artists like Smithson concentrated on observing specific phenomena and processes at a particular place. He began with that which was knowable through human experience at the scale of the body and the site. He sought to reveal through his interventions, the long-term processes that formed such a place and enabled such an experience.' (Meyer 2002, pp.197-198)

Similarly, Christo and Jean – Claude investigated the conjunction between environment and human activity. Valley Curtain, Rifle, Colorado, (1972) uses a manufactured structure to harness natural elements. Christo's work of this period offers an emphasis on the transgressive qualities of installing the work and he begins to question the definition of what is natural. His collage work for this same installation interrogates wind engineering and topographic conditions as equally dynamic forces which can be measured only through a curtain of resistance. (Vaizey, 1990) Christo's curtain reveals and measures the aesthetics of the systems in by strategic insertion.

At the same time Ian McHarg was perhaps the most pivotal landscape architect in terms of the environmental movement. McHarg can be considered the inventor of large scale ecological planning in landscape architecture. He constructed a methodology using a series of overlays which describe landscape limitations in plan view. Essentially this process is a series of layers which maps particular conditions or 'constraints' of the site such as steep topography, significant vegetation stands, floodplains, etc. Things that were the most valuable in ecological terms were assigned the darkest gradient in the mapping. When analysis maps were completed they were overlaid with each other to find the 'best' place for development. By considering which areas are the most constrained ecologically and which areas are the least constrained, one could determine where to act. This technique has generated large-scale mapping and analysis processes which currently include Geographic Information Systems (GIS) and visual assessment systems. Further, Ian McHarg's work fore grounded much of the early sustainable design discussions of the 1970's and into the 1980's. Carl Steinz's, Fred Steiner's, and Rob Thayer's earliest work was a critique of McHarg's methods. Numerous others have followed mainly in

the area of large scale environmental planning and indigenous planting palettes. (See the work of Jens Jensen, etc.) Lawrence Halprin, whose work preceded McHarg's attempts to find a middle ground between science and art. His intensive study for Sea Ranch (1961-67, 1993-) included intensive environmental analysis, qualitative observations about the experience of the place, an ecoscore graphically depicting the forces of change over an expanse of geological time and a synthesis of their site interpretations in the form of landscape and architectural design guidelines. (Meyer, 2002, p.200) Halprin's work reasserted the need for shaping landforms by natural processes over time and the conception of landscape as a temporal medium.

Thus, landscape architects begin to embrace the open-ended nature of landscape design. They accepted the dynamic that landscapes are not complete when construction is finished but continually adapt to the flow of people and natural processes throughout the site. This is in direct contrast with the static, idealized public landscape that accommodates human activity and natural phenomena, but is not affected by them. We have arrived at another crucial point where it is necessary to re-consider the last ten years of ecologically inspired design work and put forward a series of strategic directions.

## **Typological categories for ecologically driven design**

Over the past decade landscape architecture has re-invested in ecologically driven design. This paper investigates the following typologies:

1. Interpretation and Environmental Education
2. Environmental Remediation / Re-vegetation
3. Re-Use / Re-programming
4. Eco-Revelatory Design
5. The Art of Landscape Function
6. Intertwining Ecologies
7. Constructed Ecologies
8. Simulated 'natural' Attractions

This is done through both generic project descriptions and specific case studies. The design work is built and un-built, as well as speculative and conventional. The typological framework I have constructed here, aims to illustrate and differentiate current methods of approaching ecological design in landscape architecture. The eight categories include a critical reflection as to how the work itself may not be addressing much of the dynamic, ecological processes that the projects are predicated upon.

### **Interpretation and Environmental Education**

The resurgence in the 1970's of the conservation movement spurred a myriad of projects, which promoted nature trails and interpretive signage. It was thought that the public would appreciate and respect nature more if they understood how it behaved and why it looks the way it does. This would also contribute to effective harm minimisation and habitat conservation as constructed paths

curbed environmental degradation while guaranteeing public safety, thus reducing public liability. These landscapes are problematic in that they attempt to structure and sequence a dynamic interaction with the environment. They are scenographic and rely mainly on observing nature; there is generally no attempt to integrate the system with the user. They are clearly reminiscent of the picturesque approach to viewing the landscape in an overtly scripted, quasi-scientific, allegorical path system. The signage or interpretation also tends to over simplify much of the complexities in ecosystems. Many of these signs plea for the public to be more aware of dangerous environmental practices while they ignore the legacy of management and controlled nature that they rely upon. These landscapes are proliferated internationally throughout national parks and conservation areas. Landscape architects and public entities continue to embrace interpretive path systems as sound educational and environmentally conscious design. There are of course numerous exceptions including the Valley of the Giants walk in Western Australia, but the convention is still the prevalent means by which we engage the public in *nature*.

### **Environmental Remediation / Re-vegetation**

Similar to interpretive paths, environmental remediation projects also evolved in the 1970's. As the public became more informed about the detrimental environmental affects of mineral extraction, industrialization and pollution in watercourses, erasure of important wetlands by development, and the toxicity of a variety of refuse sites including rubbish tips, nuclear waste and chemical dumps; governments and in turn private industries were pushed to literally clean-up their acts. The majority of these projects still seek to return landscapes back to their previously untouched or 'pristine' conditions. The designs are generally about erasure, concealing, and restoration. They deny and try to mitigate the effects of human interaction within a site. They confuse designing with nature and natural processes with designing nature. They often involve quasi-scientific approaches and rely heavily on McHarg's formless environmental design frameworks. Environmental remediation could, however, lead to an interesting conjecture about highly disturbed processes and speculation about the innovative new relationships created through selectively or un-remediated processes which lead to insightful new design inquiries. Regardless, these projects do offer important technical methods for dealing with disturbed or highly changed sites. Restoration is the most prevalent approach to conventional remediation today and will continue to be the convention until environmental legislation and policy is re-considered for more innovative and reflective design measures.

### **Re-Use / Re-programming**

This project type utilizes redundant landscapes and recycles them or cross-programs them. They are typically sited in terrain vague sites of postindustrial landscapes and residual urban spaces. Peter Latz's project, *Duisburg – Nord*, turns a former steel refinery into a series of four parks. The design appropriates canals, treatment pools, and reservoirs for reclamation into garden features.

Achva Stein's and Noran Milar's proposed project, *Windows of Opportunity*, considers the remnant sites of a Los Angeles freeway. They re-program left over space adjacent to infrastructure while considering the ecology of the community and the environment. The work offers reforestation, urban agriculture, and wastewater reclamation along side spaces to work on cars and motorcycles, listen to and practice loud music, impromptu flea markets or hangouts. (Stein and Milar, 1998) Re-use and re-programming design projects are different to remediation in that they do not necessarily erase the effects of the redundant land-use, in fact they usually celebrate it. These projects also tend to accept that humans and their environments are integrally linked and attempt to broaden the definition of ecology to include social and community processes. They borrow heavily from Bernard Tschumi's cross programming, trans-programming and dis-programming and they are quickly becoming the convention as open space is scarce and developers are pressured to find other ways of making parkland. They offer in some respects a way of leveraging our guilt in that they show responsible recycling of defunct landscapes but they do not call to question the forces which are responsible for their making. Simply, we are re-using these spaces as parkland because they are too disturbed or unhealthy to live in. While they often celebrate or mark industrial ecologies, they neglect inhabitation ecologies.

### **Eco-Revelatory Design**

This project work is predicated upon design that reveals ecological phenomena, processes and relationships. (Brown, Harkness, Johnston, 1998) Eco-revelatory design is primarily an updated version of interpretation. Projects in this category utilize a myriad of design techniques to reveal ecological systems both disturbed and pristine. Julie Bargmann's and Stacy Levy's project, *Testing the Water*, centers on treating acid from coalmine drainage and contaminated water. The water entering the system is often orange and devoid of life. As it moves through a series of manipulations the water ultimately becomes cleansed. (Bargmann and Levy, 1998) The plants become a litmus for cleaner water showing the extent to which the planting design measures and celebrates these changes. Anuradha Mathur's and Dilip da Cunha's work, *The Soil that New York Rejected and Re-Collects*, on New York's Governors' Island is also about educating the public. This project attempts to reveal that the north half of the island is solid bedrock, and that the south half of the island is fill from the NY subway excavation, and the construction of the Brooklyn Battery Tunnel. They propose platforms which align views to Manhattan and New Jersey while the central intervention involves a lift shaft revealing the buried layer of geological strata and its adjacency to the fill strata. Visitors have physical and visual access to the layers of soil as well as to historical documentation of the who, what, where, how, and why of the island's past and present. (Mathur and da Cunha, 1998) Eco-Revelatory design projects explore a range of phenomena and elucidate relationships but they do not necessarily re-mediate environmental conditions. They tend to be more immersive and reflective than conventional interpretation devices but they don't necessarily engage in the continual on-going forces of

ecological change. They rely on a viewer or an observer not an actor within the processes which occur. Their richness lies within the innovative means of telling the story, the landscape as palimpsest rather than placard. They are also generally framed around a narrative journey which relies on a path where picturesque moments of a postmodern world are revealed.

### **The Art of Landscape Function**

The art of landscape function celebrates basic landscape functions such as drainage, tidal movements, wind, sun/shade patterns, ephemeral landscape conditions etc. George Hargraves' Candlestick Point Cultural Park in San Francisco, California uses sculptural topographic indentations as a means of recording and marking the tidal flux of the bay, and channeling or deflecting the wind. His topographic inflections are reminiscent of the adjacent dune ecology, but they offer a more sculpted, designed space. No exhibits or interpretative signs intrude on the visitors' experience of this environment. The design is a series of interactions, movements, and engagements with the environment - the sites forces literally shift visitors just as they shape and transform the boundary between land and water. Unfortunately, the project concentrates singularly on the natural forces and not the constructed ones. Other dimensions such as water drainage from the adjacent baseball stadium context; including collecting and treating the gray water from the enormous adjacent car park as well as serving as an overflow parking lot during big game days could have been incorporated into the design. For the most part Candlestick Cultural Park sits idly as a massive landscape earthwork. The art of landscape function projects are generally sculptural and spatial but they often fall short of previous land artists' work in their conceptual dialogues and their approach on the same themes. At their very worst they end up being landscape or topographic objects without any of the intended interaction with processes of erosion or landscape as an ephemeral media. Landscape architects continue to struggle with celebrating ecology and dynamic process as a program, perhaps when they begin to re-examine landscape function or infrastructure in relation to celebrated ecologies their projects will move beyond singular gestures.

### **Intertwining Ecologies**

Intertwining ecology projects utilize existing ecological systems, both disturbed and natural, and exploit their dynamic potential. These projects accept that systems affect each other and layer complex design interventions as another relationship. They do not attempt to 'fix' ecologies or 'explain' phenomena, they attempt to engage in the forces within them and utilize them in new design formations. Matt York's, *Seepage West*, project seeks to utilize the site's postindustrial history as a conceptual and literal framework for re-claiming sites of production and preventing further environmental degradation of Port Phillip Bay, Melbourne. His design offers a series of collection points or structures for rubbish and sediment before it reaches the bay. The gross pollutants become the reclaimed ground. He utilizes daily ephemeral tidal changes and lengthy river process to reveal the design and ultimately to construct its new public

interface. A series of gabion-like structures fill and sink, eventually extending the promenade walk along the river's edge. Columns, reminiscent of existing factory ruins on the site, are placed in the river to create attractors for sediment deposits. The bank is stabilized and re-vegetated creating more suitable habitat for fish and wildlife. This project emphasizes time as integral to building, changing and forming public open spaces. It cleverly encourages environmental sustainability by utilizing waste and by-products of human consumption. It critiques typical landscape mitigation and river restoration techniques by not proposing a return to a more 'natural' state and concealing degradation; but by constructing landscape and river interfaces, which acknowledge and utilize degradation as a building force.

Similarly, Harley Blacklaw's proposal for the Bay Cemetery is a synthesis of environmental planning regimes and cemetery program. This work offers an understanding and utilization of ecological processes also in Port Phillip Bay, Melbourne. In essence, the cemetery heals the bay. While it is fundamentally a cross-programming exercise, which engages in landscape process, it also offers a cultural perspective on death and dying. Harley's work asserts that there is no greater monument or peaceful resting place for a loved one than the Bay. He argues that by integrating humans into the nutrient cycling of the bay as a catalyst for creating bio diversity and for eliminating introduced, invasive species; one's death can result in the perpetuation of life. He locates the burial chambers in key places where currents and shipping traffic will ensure the establishment of small - scale artificial reef environments. He also proposes the locations for scuttling obsolete ships infused with established, native marine ecologies to out compete introduced or threatening species. Intertwining ecologies build upon Olmsteads' tradition of landscape infrastructure and land artists' experiments with entropy.

### **Constructed Ecologies**

Constructed ecological projects involve making entirely new systems which connect into greater ecological processes both human and natural. Projects in this category are also derived from Olmstead's environmental engineering approach to design. They can be as simple as constructed wetlands which treat sewage to green architecture. *Editt Tower* in Singapore by Ken Yeang intermeshes the environmental impacts of skyscrapers with public open space, vertical landscapes, passive energy use, natural ventilation, recycling of wastewater, and reuse of rainwater. The *Waterland Neeltje Jans* project in the Netherlands incorporates a constructed dune carpet, car park and starfish promenade, and utilizes forces of erosion, soil compaction, and invasive species. The project uses the act of parking a car to mitigate dune erosion and eradicate invasive species of starfish. The range of design responses in this category forms both a conventional understanding of constructing an ecology as well as re-configuring dynamic processes. Constructed ecologies can go beyond the landscape as machine and employ formal presence to focus attention on a place and its particular qualities. They can engage in a sites' ancient natural histories,

its recurring natural cycles and processes and reveal things which were almost invisible to a culture of distraction and disengagement. This formal presence depends on the experience of a dynamic place by an engaged, participant over time.

### **Simulated 'natural' Attractions**

These projects straddle the borderline between kitsch landscapes and consumerism. They are generally in vernacular locations such as shopping malls and amusement parks. Underwater World in the Mall of America or the Oceandome in Miyazaki, Japan allow us to satisfy our urge to experience fragile ecosystems by visiting a simulation. This in fact may lead to less damage to the real thing. On the other hand, if we can manufacture a really convincing and entertaining fake, who will want to care about the original. Places like Las Vegas survive on our need for escapism. Landscape architecture and in particular, public parks, historically were and still are rationalized as places to escape urban congestion. And while others may find them entirely inappropriate, they are simply constructed ecologies. They do not attempt to mask the fact that they are artificial, in fact they celebrate their imitation and fakeness through materiality and simulation. They may offer us further insight into actually designing nature than remediation or reclamation projects.

### **Conclusions**

Elizabeth Meyer states, '...the phenomenology of landscape architecture taps into the concrete experience of place by its citizens and if those experiences intermingle cyclical natural processes with the rhythms of collective social life, then this type of built work can redefine what it means to be part of the environment.' (Meyer, 2001 p.243) Obviously, the typological categories overlap, inform each other, and offer hybrid projects, which can combine many of these ideas. Over the past decade numerous approaches to reconciling the divide between ecology and design have been explored in landscape architecture. This paper attempts to position some of the main trajectories to date. The evolution of ecological design has been inspired through critical debate among ecologists, land artists exploring the phenomena of the land and place, as well as deeply held traditions within the profession itself. What maybe really important is to reconsider our relationship with ecology and to position ecology as a part of humanness and humanness as a part of ecological systems. However ambiguous, landscapes are living artifacts through which nature/culture relationships are manifested. Instead of an environment that is a surround or a landscape setting, future design work should create an awareness that ecological environments are here, flowing in through human life and our constructions.

In the context of the 200 Mile City , this means that we no longer can consider what we do as separate from the entirety of the region. It implies that all landscape work of various scales has an ecological value and should in fact recognize the greater and lesser systems that we impact upon. It also implies

that our rediscovery of Indigenous plant materials and council mandates towards more sustainable design may not be the only answer. If we acknowledge that all ecologies are a part of an entirety, the best practice may not be a native re-vegetation effort, it can in fact be something entirely different. It forces us as a profession to regard the program of landscape meaning things like drainage, creating chlorophyll, oxygen, etc. is a valid justification for the existence and procurement of design not the artificial programs we tend overlay onto a site from an economic perspective.

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