MAPPING LANDSCAPE
urbanism

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a practicum submitted to
the Faculty of Graduate Studies of the University of Manitoba
in partial fulfillment of the requirement of the degree of

MASTER OF LANDSCAPE ARCHITECTURE

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To map is in one way or another to take the measure of a world, and more than merely take it, to figure the measure so taken in such a way that it may be communicated between people, places or times. The measure of mapping is not restricted to the mathematical; it may equally be spiritual, political or moral. By the same token the mapping's record is not confined to the archival; it includes the remembered, the imagined, the contemplated. The world figured through mapping may thus be material or immaterial, actual or desired, whole or part, in various ways experienced, remembered or projected.

Dennis Cosgrove 1999, 2.

…the function of mapping is less to mirror reality than to engender the re-shaping of the worlds in which people live.

James Corner 1999a, 213.

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Abstract.

A map is a context. This project is about contextualization. This process has helped me understand where landscape architecture currently sits as a discipline and offers hints as to where it might go in the future. The function of this mapping is as much about re-shaping an understanding of landscape architecture as it is about understanding landscape urbanism.

Like architecture and city planning, landscape architecture is a discipline in constant flux, redefining its role with and relationship to parallel fields of thought and within broader disciplinary contexts. Over the last few decades it has become apparent that landscape architecture has emerged as a discipline strongly capable of reshaping urban space. Ideas regarding landscapes as active, dynamic, operational systems have paralleled the discipline's growing relevance within an urban context.

In this time landscape urbanism has emerged as a reaction to landscape architecture's role within our changing world. For landscape urbanism to contribute anything of value to the future of urbanism, or to the design disciplines, it needs to be contextualized within the larger framework of which it is part, without this context landscape urbanism has no relevance. Where it has come from must be critically assessed as a way to understand its intentions and potential future.

Landscape urbanism may expand architecture's boundaries to include elements of landscape thinking, but it does not expand the boundaries of landscape design. Its attempt to generate a new approach for urbanism is innovative as architecture, in its effort to expand the discipline's understanding of site, but as a design discipline, or a strategic approach to thinking, landscape urbanism is not innovative.

Contents.

Introduction.

Landscape urbanism has been a buzzword for landscape architects and architects for nearly a decade. Its promise is vast, offering a new utopian vision for a generation of young designers. Its vocabulary is taken from landscape architecture, though the ideas are considered to be much more complex and relevant to urbanism than those of contemporary landscape architectural theory or practice. Landscape urbanism attempts to merge the gap between design and planning, picking and choosing bits of landscape architecture, urban planning and architecture theory to create a new hybrid 'interdisciplinary' field. It illustrates no built works and it exhibits a vague manifesto. Voices from across the disciplines emphasize the discrepancies in its understanding. Landscape urbanism is often either fully embraced or consciously avoided by landscape architecture.

Many of the defining ideas and bold statements attributed to landscape urbanism were initially formed through a critical misunderstanding of landscape architecture, as I understand it.

*// This statement began as the basis
for this practicum exploration.*

Critically assessing landscape urbanism has become a starting point for me to understand landscape architecture more clearly while gaining better insight into how it is understood in a broader context.

From the multi-authored articles on landscape urbanism from the key publications, I believe the concept is best understood in terms of what it is and what it is not, claims and rejections as summarized by Richard Weller, Discipline Chair of Landscape Architecture at the University of Western Australia. Weller has organized landscape urbanism's key tenets into claims and rejections, as a way to "more concisely fix its coordinates".[1] His summary is assembled from the few articles and two books that attempt to substantiate the term as something distinct, emergent and new.[2]

This summary contains all the promise, rhetoric and gusto of landscape urbanism. It is included here to act as a review of the key points from this field of thought. Consider the following points when reading this document.

Landscape urbanism claims to:
1. align itself with contemporary scientific paradigms of nature as a complex, self-organizing system;
2. conceptualize, interpret and directly engage the city as a hybrid ecology;
3. emphasize the creative and time-developmental agency of ecology in the formation of urban life as opposed to envisaging an ideal equilibrium between culture and nature;
4. include within the purview of design all that is in the landscape – infrastructure and buildings etc. and do this at scales which bridge the divide between landscape design, landscape ecology and landscape planning;
5. experiment creatively with computer driven methods of mapping social and ecological forces which affect a given site so as to get closer to the complex dynamics of the landscape;
6. aim for structural efficacy and instrumentality by design and to apprehend both site and program as creative subjects and opportunities, while generally privileging a rational understanding of site forces over the designer's subjectivity;

7. foreground the landscape as the ultimate system to which all goes and from which all comes, a template for urbanism.

It rejects:

1. the Garden (paradise) as landscape architecture's ur-metaphor – (replacing it with the City);
2. the landscape as urbanism's other, as a repressed, gendered, and passive layer;
3. a puritanical nature that needs to be reinstated as such to effect equilibrium between nature and culture;
4. designing toward fixed and final objects or aesthetic intuitions regarding formal composition;
5. style, image, scene, and symbolism as dominant aspects of design;
6. neo-conservative new urbanism on the one hand and avant-garde originality on the other;
7. architectural and landscape architectural design as the production of isolated objects; superficial contextualism and commercial styling of places whether aloof to, or in some way merely compensating for the instrumentalities of the world around;
8. modernist planning and its pretence to control and contemporary planning which is devoid of the creative processes common to design processes;
9. a McHargian binary coding between nature and culture.

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1 Weller originally set these points out in *The Mesh Book: Landscape/ Infrastructure* and revised them for publication in *Kerb 15.*

2 The two major publications on landscape urbanism are Mohsen Mostafavi and Ciro Najle's 2003 Architectural Association publication *Landscape Urbanism: A Manual for the Machinic Landscape* and Charles Waldheim's 2006 Princeton Architectural Press publication *The Landscape Urbanism Reader.* Both books are a collection of articles written on the subject that attempt to give it relevance and position it within a contemporary understanding of urbanism.

Appendix.

Landscape urbanism describes a disciplinary realignment currently under way in which landscape replaces architecture as the basic building block of contemporary urbanism. For many, across a range of disciplines, landscape has become both the lens through which the contemporary city is represented and the medium through which it is constructed.

Charles Waldheim 2006, 11.

Landscape urbanism ultimately suggests neither a new formalism nor a renewed emphasis on landscape in the city. It is not a theory of design, but promises to innovate at the level of design practice. It has emerged from a perceived crisis in which the traditional disciplines of architecture and urbanism are thought to be incapable of engaging the contemporary built environment. The urban milieu has altered so drastically in the past 50 years that the objects of architectural and urban knowledge – such as the 'city' – no longer exist as objects accessible to those fields.

Christopher Hight 2003, 22.

As a complex amalgam, landscape urbanism is more than a singular image or style: it is an ethos, an attitude, a way of thinking and acting. In many ways it can be seen as a response to the failure of traditional urban design and planning to operate effectively in the contemporary city.

James Corner 2003, 58.

What is landscape urbanism? This emergent discipline … entails a shift in emphasis from the figure-ground composition of urban fabric towards conceiving the urban surface as a generative field that facilitates and organizes dynamic relations between the conditions it hosts. This addresses in particular the interactions between the built environment – with articulated surfaces as its medium – and the subject, both individually and collectively.

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Michael Hensel 2003, 111.

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The emergence of a discourse based on the relationship between contemporary urbanism and landscape theory and methods signifies an important shift for landscape architecture as a discipline. It offers the vehicle in which landscape architecture can reengage with city making and take a more significant political role in the debates surrounding urbanization, public policy, development, urban design, and environmental sustainability. The discourse of landscape urbanism establishes the significance of infrastructure and its associated landscape in the development of contemporary urbanism, and in the generation of public space.

Landscape urbanism brings together a number of different landscape-generated ideas in the exploration of contemporary urbanism. Landscape is used as a metaphor for contemporary urban conditions.

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Elizabeth Mossop 2006, 165.

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Landscape urbanism warrants serious discussion because it alone seems theoretically prepared and practically capable of collapsing the divide between planning and design. This also entails a compression of the divisions between architecture and landscape, between fields and objects, between instrumentality and art.

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Richard Weller 2006, 62.

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Landscape urbanism is a term that has been coined to depict the study of urbanized landscapes of the second half of the twentieth century. It is, so to speak, the reactive child of all the teachings of our rationalist, functionalist, and positivist forefathers. It is light years away from the inductive thinking of early urban designers who drew and built their ideal cities on almost virgin lands. Landscape urbanism is meant first and foremost to decipher what happened in city landscapes of the decades and to consequently act upon them. It addresses a complex and almost inextricable condition that is strangely recurrent at all four corners of the globe, although at a closer look there remain undeniable topographic, climatic, and cultural differences in the patterns that are observed and developed.

Christoph Girot 2006, 89.

The notion of site propelling landscape design work interfaces with the emerging amalgam of practices known as landscape urbanism, a phrase taken here to be the conceptualization of and design and planning for urban landscapes that draw from an understanding of, variously, landscape's disciplinarity (history of ideas), functions (ecologies and economics), formal and spatial attributes (both natural and cultural organizations, systems, and formations), and processes (temporal qualities) impacting many scales of work. Landscape urbanism also suggests a particular culture of and consciousness about the land that refrains from the superficial reference to sustainability, ecology, and the complex processes of our environments in favor of projects that actually engage them. Embedded in landscape urbanism is concern not only with how landscape performs (the agenda of which is most advanced) but how it appears (its latent inescapable counterpart).

Julia Czerniak 2006, 108.

Premise.

From the beginning this document has been about more than landscape urbanism. This research grew out of a frustration with the way landscape architecture is depicted in landscape urbanism writing. I wanted to defend the discipline of landscape architecture in what I perceived to be an attack on its basic premise – that of a discipline uniquely prepared for the design and planning of spatial networks of cultural, ecological, and temporal significance - but I did not have the detailed knowledge or the language to do so.

At first, I was skeptical of the intentions of this emergent field. I spent a lot of time trying to figure out exactly what I was reading, trying to fit together the pieces and the voices to formulate a clear understanding of landscape urbanism. The primary discussion that was missing was the one that centered on landscape architecture.

For landscape urbanism to contribute anything of value to the future of urbanism, or to the design disciplines, it needs to be contextualized within the larger framework of which it is part. Without this context landscape urbanism has no relevance. Where it has come from must be critically assessed as a way to understand its intentions and potential application.

A map is a context. This project is about contextualization. This process has helped me understand where landscape architecture currently sits as a discipline and offers hints as to where it will go in the future. The function of this mapping is as much about re-shaping an understanding of landscape architecture for those without this knowledge, as it is about understanding landscape urbanism.

My research, much like the writing on landscape urbanism, is about bits of a story that come together to make a whole. Each piece must primarily be understood as part of the larger context in which it is placed.

01

One.

Understanding Landscape.

Although the etymology of landscape has been well covered elsewhere it is included here for the purpose of completeness.

Despite their common interest in landscape, artists, writers, planners, landscape architects, and geographers can never share the same definition of the term, nor will they always reach a full agreement within their own domain. Landscape serves a different purpose for each group, and each profession or discipline is unique in terms of its focus, objectives, scales of analysis, epistemologies, and methodologies. Nevertheless, each would benefit immensely from understanding the others' conception of landscape.

Eugene J. Palka 1995, 64.

Vague word definitions are a serious handicap to sharp thinking.

Preston E. James 1934, 7.

landscape

noun
natural or imaginary scenery; a scene in a broad view
a picture representing this; the genre of landscape painting
having or in a rectangular shape with the width greater than the height
the general characteristics of an activity, field, sphere, etc.

verb
alter (a piece of land) by landscape gardening

The Canadian Oxford English Dictionary, 2004

landskip, lantskip

A picture representing natural inland scenery or a view of such scenery
From Middle Dutch lantscap (modern) *landschap*
landscape, province
Compare with Old English *landscipe* region, tract
Old Saxon *landskipi*
Old High German *lantscaf*
Old Norse *landskapr*

Adopted from Dutch as painter's term, like easel
See LAND, -SHIP

Oxford Dictionary of English Etymology, 1966

Landschaft + Landscape

Landscape, to most people, conjures scenes of rolling hills, views to mountains, lakes and meadows, pristine and romantic. Or, one may imagine a suburban backyard with stone pavers, low shrubs, carefully placed flowers and manicured lawns.

To others, the term is elusive and does not invoke a single static image. For those who employ the concept of landscape, there is no standard definition or clear consensus on its meaning. Its metaphoric nature allows it to be used in many ways. For these people - for me, defining landscape is tricky. However, this definition is altogether necessary in reminding us of the role of landscape architecture.

Our cultural perception of landscape is intimately tied to our understanding of the pictorial. This sentiment remains closely tied to the understanding of landscape architecture as it emerged from the early eighteenth century English garden style or the picturesque.   One aspect of the picturesque relates to composing landscape scenes from landscape paintings; creating a three or four-dimensional scene from a two-dimensional image. Continuing to view landscape as a picture obscures the limited understanding of landscape architecture. It neglects the idea of landscape as process, which includes aspects that are cultural, ecological, temporal and experiential. It also pervades the idea that landscape is separate from the city, an idea which, at least in landscape architecture, is not true.

Landscape has been subject to many interpretations through successive cultural eras. Historian John Stilgoe and writer J.B. Jackson have extensively documented the history and lineage of landscape.[1] The analysis of the term reveals romantic and nostalgic beginnings that stretch beyond the English etymological history of landskip and lantskip to the Old German landschaft.

Landscape, from landschaft, has lost its cultural relevance and come to represent something wholly different and much less significant than it once was. Landscape, as we know it today, requires a new definition to mirror its position within our current cultural context and thus its role within landscape architecture.

When traced from its German origin, landscape means more than scenery or a picture. Landscape is land shaped and modified for human occupation. This landscape does not happen by chance; it is not of nature. It occurs through contrivance, premeditation and design. This landscape is not wilderness.

In the early sixteenth century landschaft defined a compact territory that had been extensively modified for permanent occupation. It was different from a town or a village. It was "a collection of dwellings and other structures crowded together within a circle of pasture, meadow, and planting fields and surrounded by unimproved forest or marsh."[2] Landschaft was similar in nature to the Anglo-Saxon word tithing or the French word vill in that it meant more than the organization of the place itself, it included the inhabitants of the place and their obligations to and relationship with the land.[3]

The form of the landschaft was derived from spatial economics.[4] The idea has existed for centuries and was depicted in ancient Egyptian hieroglyphs as an abstract form clearly differentiated from that of a town.[5] In a town the structures share no relationship with the fields, in the landschaft, this relationship is critical; without one, there would not be the other.

The medieval landschaft was approximately twelve to fifteen square miles and was home to no more than three hundred people. The size was intended to be easily accessible by foot. If a landschaft grew too large to be walked, thus uneconomical, the younger families would leave to establish a new landschaft in the wilderness.[6]

The landschaft gave its inhabitants their identify. Owning a stead and being a permanent part of a landschaft ensured spatial and social security, as chaos surrounded the landschaft in the form of wilderness and transients, neither of which could be trusted.[7] The rhythm of the landschaft was governed by husbandry; at the same time each year crops would be planted, harvested and grazed, ensuring economic stability, providing food and societal order. For those within the landschaft, there was "no clear separation of self from scene, subject from object."[8]

Throughout Europe, by the mid seventeenth century, roads, established by kings, unlike the paths between fields, began facilitating movement for traders and merchants who sought out spaces larger than vills or landschafts. English merchants and sea captains with no understanding of the spatial or social complexity of the scene viewed from the road associated the sound of the word landschaft with the Dutch term landskip, which referred to Dutch scenery painting. "In their eyes, a landscape was an extensive, cultivated expanse dotted with villages, towns, and cities; it was best seen from a mountain top, and best depicted in a painting or on a map."[9] "Thus, landschap entered the English language as landskip, and referred at first only to the pictures imported from Holland."[10] Soon the term defined any natural or rural view that approximated those painted by the Dutch. By the mid-eighteenth century it referred to the gardens designed to mimic the paintings. It was adapted into a verb though its use by gardeners, who reshaped fields and woods according to picturesque standards, creating three-dimensional pictures.[11]

Landscape + Landscape Architecture

Landscape defines landscape architecture loosely and inaccurately. The discipline is often referred to in shortened form, from landscape architecture simply to landscape, which further obscures the limited understanding of landscape architecture.

The Canadian Oxford Dictionary includes four definitions of landscape as a noun. The first two refer to a broad view, natural or imagined. The third refers to the genre of painting that depicts such a view. These definitions maintain a spatial dimension but lack the social and processual dimension that existed in the landschaft that preceded the Dutch pictures.

Landscape, as referenced in the Canadian Oxford Dictionary gives no hints as to the role, scope or scale of landscape architecture. Within the design disciplines landscape architecture has been understood as architecture's other. Just as culture is understood as nature's other; the city, landscape's other.[12] This binary pairing often results in landscape architecture being defined as everything architecture is not; wild verses ordered, art versus science.

Implicit in this understanding of landscape is the idea of nature which cultural critic Raymond Williams cites as "perhaps the most complex word in the language."[13] Nature is both given and constructed. It is a product of natural phenomena and human artifice. It is a set of ideas with multiple meanings all tied up into a single word. Nature is not the binary of culture, nor is the city landscape's other. Nature, like landscape, exists "in between".

John Stilgoe states that "landscape always displays a fragile equilibrium between natural and human force; terrain and vegetation are moulded, not dominated. When men [sic] wholly dominate the land, when they shroud it almost completely with structure and chiseled space, landscape is no longer landscape; it is cityscape, a related but different form. Landscape is

essentially rural, the product of traditional agriculture interrupted here and there by traditional artifice, a mix of natural and man-made [sic] form."[14]

Beginning as far back as the nineteenth century knowledge of ecology and culture supplanted landscape painting as inspiration and motivation for landscape architecture. For the past two centuries as our world has shifted from being primarily rural to urban, so too has our understanding of landscape. Stilgoe's belief that the city is separate from landscape is the sentiment often shared by those outside the profession of landscape architecture. Although not apparent at a glance, the city is not dominated by human or built form. The city is subject to the same ecological, 'natural' forces that affect the countryside. In order to create successful urban conditions, the 'fragile equilibrium between natural and human force' must be understood by the landscape architect.

Landscape architect Elizabeth K. Meyer argues for an understanding of landscape architecture as a hybrid activity, "not easily described using binary pairs as opposing conditions."[15] She believes that "as soon as landscape architecture is conceptualized as a field that operates "in between" so many previously antithetical terms and concerns, a range of new practices can evolve."[16]

As we have shifted from rural to urban, industrial to post-industrial, landscape architects have been steadily engendering new possibilities for the role of landscape architecture where landscape as a visual image is replaced by a spatial and temporal condition, allowing for alternate ways of seeing, describing, and evaluating the landscape. This understanding aligns the discipline with landschaft rather than landskip. "In this sense, the city is as much a participatory landscape as are the highly technological energy and agricultural fields of the Southwest, the worked plots of private gardens, and the activities circulating across vast urban surfaces… In the working landschaft, performance and event assumes conceptual precedence over appearance and sign".[17]

1 Jackson, John Brinckerhoff. 1984. *Discovering the Vernacular Landscape.* New Haven: Yale University Press. Stilgoe, John R. 2005. *Landscape and Images.* Charlottesville: University of Virginia Press. Stilgoe, John R. 1982. *Common Landscape of America*, 1580 – 1845. New Haven: Yale University Press.
2 Stilgoe 1982, 12.
3 Ibid, 12.
4 Ibid, 12.
5 Ibid, 12.
6 Ibid, 17.
7 Stilgoe 2005, 35.
8 Cosgrove 1985, 19.
9 Stilgoe 2005, 30.
10 Ibid, 29.
11 Jackson 1984, 3.
12 Meyer 1997
13 Williams 1983, 219.
14 Stilgoe 1982, 3.
15 Meyer 1997, 50.
16 Ibid, 50.
17 Corner 1999b, 159.

There is no consensus on the disciplinary background that produced landscape urbanism. Its origins differ depending on which texts one reads and which school of thought one is more exposed to. The following three sections of this document outline events and publications significant to the emergence of the discourse as a way to understand landscape and urbanism.

This summary is not exhaustive, rather it attempts to identify the relevant events as outlined in the published, self-declared landscape urbanist literature, while also including sources which, from my perspective as a graduate student in landscape architecture, appear as common sense to the emergence of the discourse. It begins with sources aligned with landscape architectural thinking and theory that are not referenced in the literature and concludes with sources more commonly referenced throughout landscape urbanist writing.

02

Two.

Considerations.

This document is not about landscape urbanism. Consider that landscape urbanism does not exist; that it is nothing more than an advertising campaign intended to promote the writings of its authors, helping them sell books and get promoted. It is another manifesto for a discipline overrun with manifestos. It will soon be replaced with the next forward thinking, 'big idea' answer for the problems plaguing contemporary urbanism.

Rather, what does exist are different ways of thinking about landscape, which come from different people, with different histories, voices and contexts.

From the beginning, this process has been about landscape. It has been about ways of thinking about landscape architecture and ways of approaching a post-industrial urbanism and trying to sew it together with places for people, culture and nature.

The understanding of landscape as part of a larger, operative system is not new. This concept of landscape as process – dynamic and operational, versus landscape as scene, transcends twenty first century thinking. Landscape thinkers have steadily built upon theories presented before them, bringing us to today, where ideas of regions as comprised of cultural, ecological, political, temporal and experiential forces are customary to our ways of thinking.

I have chosen several key landscape theories that have contributed to this genealogy. They clearly build upon each other, offering continuity of thought to landscape theory. Most of these theories are not referenced, or their relevance is severely minimized in landscape urbanism literature.

John Evelyn

In the seventeenth century landscape gardener John Evelyn developed a plan to mitigate the air pollution of London. His detailed recommendations are published in *Fumifugium: Or the Inconvenience of the Aer and Smoake of London Dissipated.*[1] From Latin, *fumifugium* roughly translates to "chase away smog". Evelyn's highly detailed proposal was based on locating the major sources of air pollution within the city and the climatic forces required to disperse them.[2] The document includes suggestions that prohibit the use of high-sulfur coal and relocate major industrial pollutants such as tanneries from the centre of London, downwind, to the outskirts of the city. The key to Evelyn's report was a detailed understanding of process, including the effects of wind, air temperature and topography on London.

John Claudius Loudon and Fredrick Law Olmsted would later reference Evelyn's precedent when facing environmental problems of the nineteenth century. [3]

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1 Evelyn 1661.
2 Spirn 1985, 41.
3 Ibid, 41.

John Claudius Loudon

Landscape gardener and horticultural encyclopedic writer John Claudius Loudon's unrecognized 1829 plan *Hints for Breathing Spaces in the Metropolis* detailed a systematic approach for preserving and developing open space for an expanding London in the early nineteenth century. Loudon's plan was possibly the earliest regional scaled development strategy for the city.[1]

Loudon was motivated by the potential enclosure of Hampstead Heath, one of the city's only accessible green spaces sufficiently high above the smoke and fog to offer fresh air and views to the countryside for lower income Londoners.[2] His 1829 plan would preserve Hampstead Heath as well as thousands of acres of undeveloped land in and around London. Loudon acknowledged that an expansion plan was necessary for London's future as a healthy city. His answer was essentially a series of concentric green belts or 'country zones', alternating with town zones, to surround the London metropolis at one-mile intervals.[3]

Loudon's intention with the plan was to preserve 'breathing spaces' for public health and recreation. It included a healthy balance between open space and urban space while incorporating plans for bundled infrastructures that would carry goods, sewage, water, gas and hot water, hot oil, steam, and hot air throughout the city.[4] His vision for London's future growth was based upon "a radial and concentric network of streets, public transport, and postal service routes - all at surface level; and a corresponding underground network would contain public water and gas mains, as well as channels for sewage and irrigation."[5] Implicit in the general outline of the plan was the concept of zoning for mixed land uses - recreational, commercial, institutional, residential, and cultural, all dependent on the location of the 'country' and town zones.[6]

Loudon's plan differed from Ebenezer Howard's well-known Garden City of 1898. Howard's plan suggested that the growth

of the metropolis could be stunted by developing 'magnets' in the countryside to draw the city population away from London. His Garden Cities would be limited in size and no longer privately owned, rather, land would be held in public ownership or in trust for the community.[7] Loudon's plan differed in that it did not propose changes to the existing economic system of private land ownership or free enterprise. It was based upon expansion of the current city of London. Loudon was planning for the actual city rather than one based upon contingencies, which differed from the utopian visions of his time.

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1 Simo 1981, 188.
2 Ibid, 186.
3 Ibid, 187.
4 Schumann 2003, 306.
5 Simo 1981, 187.
6 Ibid, 187.
7 Ibid, 197.

Frederick Law Olmsted's Back Bay Fens

Although Olmsted is most remembered for designing pastoral landscapes, his true legacy comes from his visions for places such as Boston's Back Bay Fens where the landscape plays an active role in the city, forming "a landscape *system* designed to accommodate the movement of people, the flow of water, and the removal of wastes."[1] Olmsted's skill at concealing the artifice in his projects made much of his design work invisible; the dynamic processes they facilitated are instead attributed to untouched nature rather than human intervention.[2]

Boston's Emerald Necklace is a constructed park system that connects found and made landscapes native to and quickly disappearing from the New England landscape. In the mid nineteenth century several city blocks in the Back Bay neighborhood, which had previously been the Muddy River, were filled to allow for the construction of housing, which resulted in frequent flooding and strong odors. The primary motivation for the project, which was completed in the 1880s and 1890s, was the restoration of a tidal marsh to control floodways and improve water quality. The project incorporated an interceptor sewer, a parkway, and Boston's first streetcar line, together forming a landscape system for the movement of people, the flow of water and the removal of waste. The project structure of roads, park, sewer, and transit acted as a skeleton to structure future growth for the city of Boston.[3]

Described by landscape architect Elizabeth K. Meyer as "a hybrid of machine and organism, a nineteenth-century landscape cyborg… Partly a found stream, partly a constructed riverway, partly a storm sewer, partly a constructed wetland, and partly an urban circulation system."[4] The park system connects an upland woodland to a tidal estuary. It is contingent on the Muddy River drainage system and the location of prototypical regional landscapes along the route. The alignment structures a seven-mile sequence of found landscape features - fens, freshwater streams, kettles, kames, drumlins, meadows, and woods - into

an urban park system. "The park's shape is not amorphous; it is a hybrid of natural and cultural systems."[5]

Olmsted believed that the Fens salt water marsh, one of the connecting pieces within the Emerald Necklace, would not be easily accepted or appreciated by Boston residents, as it did not meet the public's expectations for a park; it was not pastoral, picturesque nor gardenesque. Rather, it was a combination of civil engineering and landscape architecture, which utilized natural systems to develop a new type of urban infrastructure and aesthetics.[6] This cyborg landscape embodied cultural concerns over the rapid loss of native functioning landscapes due to human urbanization, industrialization and modernization, which was occurring throughout North America.

However, Olmsted believed that eventually the Fens would become accepted: "It would be novel, certainly, in labored urban grounds, and there may be a momentary question of its dignity and appropriateness;… but [it] is a direct development of the original conditions of the locality in adaptation to the needs of a dense community. So regarded, it will be found to be, in the artistic sense of the word, natural, and possibly to suggest a modest poetic sentiment more grateful to town-weary minds than an elaborate garden-like work would have yielded."[7]

By 1910 when the Charles River dam was constructed Boston residents still had not come to understand the Fens as a functioning ecosystem. The construction of the dam transformed the Charles River into a freshwater impoundment, destroying the function of the Fens, which was considered only visually, as a homely landscape.[8]

Today the Fens and the Emerald Necklace are admired, but not as pieces of infrastructure, engineering or progressive landscape architecture, or hybrids of human and natural systems, they are assumed to be preserved bits of 'nature' in the city, their innovation and structure are invisible.[9]

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1 Spirn 1995, 104.
2 Ibid, 91.
3 Ibid, 104.
4 Meyer 1997, 64.
5 Ibid, 65.
6 Ibid, 66.
7 Olmsted 1880, 12 as cited in Meyer, 1997, 66.
8 Meyer 1997, 66.
9 Spirn 1995, 104.

Patrick Geddes and the Region

The idea of region, comprised of both city and countryside is fundamental to landscape architecture. Scottish biologist and geographer Patrick Geddes was perhaps the first among contemporary planners to sense the need for planning larger areas around major urban centers based on a regional approach.[1] "In short, it takes a whole region to make the city."[2] Geddes was looking for ways to make cities more habitable, to achieve a balance between the human and natural environments.[3] His ways of thinking were "an attempt to understand the essential qualities and processes behind the development of human culture, between people and their environment."[4] He pioneered a sociological approach to the study of urbanization based upon the notion that social processes and spatial form of a region are intimately related.[5] His ideas were presented in an exhibition for the Cities and Town-Planning Exhibition of 1911 and elaborated upon in his book *Cities in Evolution* of 1915.[6]

Geddes developed the term 'conurbation' to signify the consolidation and interdependence of the industrial cities surrounding London at the turn of the century, which formed a chaotic metropolitan expansion.[7] His background in biology allowed him to identify several evolutionary stages in the growth of cities, which helped him understand the contemporary city. The stages of evolution were from village to town, town to city, city to metropolis, metropolis to megapolis and megapolis to necropolis. In the life cycle of cities, Geddes equated this to human birth, life, and death.[8] Geddes was the first to apply the term megalopolis to modern urban sprawl, which was given widespread publicity in the 1930s by American urban theorist Lewis Mumford.[9]

Geddes believed that proper planning began with a survey of a region's resources. In the early 1900s Geddes developed a method for understanding the social and natural health of a region, which became known as the 'valley section'. Diagrammatically, the valley section depicted the subsoil, the natural environmental conditions and the economic life of a

region simultaneously. The diagram was a cross-section of a river valley starting from its source in the hills to the estuary on the plains. This cross section diagram allowed him to see towns and cities as the expression of their contexts. A recent article by Catharine Ward Thompson (2006) explores Geddes' Zoological Gardens in Edinburgh as a three-dimensional expression of the valley section. The article analyzes the project both to illuminate the valley section while also translating Geddes' ideas on education into practice. "Geddes used the hypothetical river valley to embody two basic principles of regional planning; first, the need to take a synoptic approach to regional problems in order to encompass the interrelations of areas and, second, the need to plan each area in coordination with adjoining areas. In this way the planner should see that in a given region different factors interact so that a change in one leads to a change in another."[10] Inherent in his beliefs was the central idea that social processes and spatial form are intimately related. In order to affect one, the other must be understood.

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1 Hodge 2002, 41.
2 Geddes as cited in Leonard 1994, 11.
3 Hodge 2002, 42.
4 Ward Thompson 2006, 80.
5 Meller 1990, 28.
6 Spirn 2002, 100.
7 Hodge 2002, 41.
8 Ibid, 41.
9 Meller 1990, 116.
10 Hodge 2002, 42.

INSERTION // *A City Planning Timeline*

City planning or urban planning emerged as a formal school of thought and a professional organization in North America in the early twentieth century as part of the nation's reaction to generations of disruptive growth and change in the rapidly forming American urban landscape. Prior to 1900 all cities encouraged *de facto* sources of growth. Cities flourished based on their abilities to secure power, market and supply and thus were dominated by profit-oriented oligarchies following boom-bust practices despite their social impact.[1] Any formal metropolitan or regional plans of the late nineteenth century were initially conceived as park development, such as Boston's Emerald Necklace designed by Olmsted in the 1880s, which integrated recreation, transportation, storm drainage, flood control and wastewater management while creating an informal framework for future urban growth.[2]

Landscape architecture and city planning share a common history in North America as the landscape architects involved in the early work of this scale, including Olmsted and his sons John Charles and Fredrick Law Olmsted, Jr., Charles Eliot, and John Nolan, were among the founders and presidents of the National Conference on City Planning (NCCP) founded in 1909.[3] The conference convened in Washington with representatives from all areas of the public sector, from law, social work, health, and conservation to architecture, landscape architecture, and engineering to discuss the future of urban growth. As a result the NCCP was formed with Fredrick Law Olmsted, Jr. as the first president.[4]

In the same year a course entitled "Principles of City Planning" was introduced into the landscape architecture curriculum at Harvard. Shortly thereafter the first course in city planning was initiated at Harvard's School of Landscape Architecture.[5] By 1925 Harvard had initiated a master's degree in Landscape Architecture and City Planning and published *City Planning Quarterly* (a forerunner of the *Journal of the American Planning Association*). In1929, with a Rockefeller Foundation grant, a

group of landscape architecture faculty at Harvard established a three-year School of City Planning. By 1940 Columbia, Cornell and MIT each offered a MCP degree.[6]

City planning emerged during America's progressive era, the period between 1906 and 1916, from an overwhelming public national demand "for orderly forward transition to a world of 'social justice' and 'social welfare'."[7] During this time progressive Republicans, reform Democrats, Socialists, and non-partisans who led state-legislated local government changes brought in the first 'expert planning advisors' to inform on how to re-build cities - the era's mandate for social reform called for a new type of urban development specialist.[8]

In 1911 president of the NCCP Charles Mumford Robinson referred to planning as the 'science of city planning'.[9] At this time planning reports generally had three sections – pre-planning surveys, which mapped physical, economic, and social data, a 'General Plan', which included detailed sections and a section suggesting methods of implementation.[10]

In 1924 the NCCP created the American City Planning Institute (ACPI), a professional division within the NCCP whose object was to "study the science and advance the art of city planning".[11] The original ACPI included 10 architects, 12 lawyers, 18 landscape architects, 23 engineers, 6 realtors and 7 others with leadership evenly divided, beginning with Olmsted, Sr.. Most presidents through 1942 were originally trained in landscape architecture or engineering.[12]

By the 1930s major planning reports commonly included more sophisticated handling of social data, zoning and land use maps, capital improvements budgets, and detailed and alternative plan proposals within the 'Master Plan'. Increasingly, these reports were supported by empirical research from within the profession, with an example being the *Harvard City Planning Series* of 1931.[13]

In the 1930s under President Roosevelt's New Deal, planning and development programs became mandatory. Development for permanent social improvement included public funding for conservation and public works, home financing and improvements, housing and slum clearance, and urban-rural resettlement programs - making urban planners the official consultants for the nation's post-war redevelopment and building efforts, thus aligning city planning with American urban policy.[14]

The emergence of city planning as a professional association and academic discipline had a significant impact on landscape architecture at universities with established landscape architecture programs.   At Harvard, the faculty members who founded city planning were interested in broad social and environmental issues, while garden and park design predominantly interested the faculty members who remained in landscape architecture.[15]   In the 1940s Ian McHarg pursued joint degrees in landscape architecture and city planning, bridging a persistent schism within the Harvard Graduate School of Design.   Later in his teaching and practice he integrated regional planning and landscape architecture, re-establishing a connection between the two areas of focus.[16]

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1 Hancock 1967, 292.
2 Spirn 2000, 99.
3 Ibid, 99.
4 Hancock 1967, 294
5 Spirn 2000, 100.
6 Hancock 1967, 298.
7 Ibid, 293.
8 Ibid, 293-294.
9 Ibid, 295.
10 Ibid, 295.
11 Ibid, 295.
12 Ibid, 296.
13 Ibid, 297.
14 Ibid, 299-300.
15 Spirn 2000, 100.
16 Ibid, 100.

Kevin Lynch and Image of the City

Prior to the 1960s, cities were believed to be 'physically determinate' – a beautifully designed city was thought to create a good and moral society.[1] In the 1950s and 1960s this design idea was challenged by social scientists. They argued that designers' sense of physical order had no relation to the social or moral order of society.[2] They viewed the role of urban design as strictly a matter of visual aesthetics with no relation to the social environment. Social scientists viewed cities as the combined outcome of local politics and the market demand for urban space. Beyond this the city was recognized as being highly complex and was not fully understood; the idea of designing a city was seen as "anachronistic, impudent, and megalomaniac."[3]

In 1960 Kevin Lynch published *Image of the City*, [4] a seminal study aimed at understanding the interaction between physical space and the urban experience. Lynch worked towards establishing a taxonomy to describe the large scale urban landscape. His research was based on views held by the public as opposed to those of designers. He wanted to know how the urban environment was understood and valued, how it shaped the lives and activities of the public, and how they then shaped the urban form. Lynch studied the mental image held by cities citizens, concentrating on the apparent clarity or 'legibility' of the cityscape.[5]

His study focuses on how users perceive spatial information as navigational devices based on the concept of 'imageability'. Boston, Jersey City and Los Angeles were used as case studies for their divergent physical characteristics. The contents of the city images referred to in physical form were classified into five types of elements, paths, edges, districts, nodes and landmarks. These elements were determined to be "the building blocks in the process of making firm, differentiated structures at the urban scale"[6] These elements were summarized into clues for urban design based on spatial qualities and would come to represent a humanistic design philosophy.

By the mid 1960s Lynch had begun working on theories of city form and city design, which would be published in 1981 in A *Theory of Good City Form*. This publication was the culmination of decades worth of research and writing on the performance characteristics of city form that best serve human purposes. As a whole, Lynch has made a significant contribution to our understanding of design as a social action, reminding designers and planners of the human purposes of environmental form, a concept that is often missing in architectural theoretical thinking.

In the 1960s as the discourse on urban design gained popularity, Lynch made a distinction between urban design and a more expansive idea of 'city design'. Lynch argued that urban design was essentially architectural and project-oriented and lacked the diverse focus needed to understand the urban realm from a humanistic perspective.[7] Lynch felt that city design should address the quality and character of the entire public city or large sectors of it, rather than simply isolated projects. Through his work, Lynch advocated for an urban discipline more attuned to the city's complex ecologies, its contending interests and actors, its elusive and layered sites, and for complex readings that together would allow the city to achieve its primary social objective as the setting for variegated and unpredictable human activities.[8]

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1 Banerjee 1990, 4.
2 Ibid, 4.
3 Ibid, 4.
4 Lynch 1960, 2.
5 Ibid, 2.
6 ibid, 95.
7 Banerjee 1990, 7.
8 Sorkin 2008, 1

Ian McHarg

Ideas about environmental health and ecological awareness began to receive widespread attention in the 1960s with the publication of Rachel Carson's *Silent Spring*. At the same time landscape architect and regional planner Ian McHarg was teaching a seminar course at the University of Pennsylvania entitled *Man and the Environment*, which brought together "the most distinguished speakers in the environmental movement."[1] The course consisted of six lectures given by McHarg, while the remaining thirty were given by colleagues from Penn and visitors from across the country, including anthropologists, ecologists, poets, biologists and sociologists, among others.[2] At the same time McHarg hosted a CBS television series entitled "The House We Live In" which was based upon the course and featured some of the same guest speakers.[3] The course, together with the television series, allowed McHarg to develop philosophical and scientific ideas for his 1969 book *Design With Nature*, while also preparing a larger audience for its release, effectively introducing McHarg's landscape architecture and environmental planning to the world.[4]

In *Design With Nature* McHarg wrote: "Let us accept the proposition that nature is process, that it is interacting, that it responds to laws, representing values and opportunities for human use with certain limitations and even prohibitions to certain of these."[5] McHarg introduced an understanding of landscape architecture that embraced processual thinking, advocating an 'ecological' approach to planning and design. Rather than focusing on the visual features of a place such as a flood plane, processes would be studied such as those defined by geologic, vegetative or hydraulic cycles. The natural resources present or the ecological processes accommodated on the land would then determine the appropriateness for development of a particular area.[6] In the 1960s when McHarg proposed his approach, ecological thinking was based on an understanding that ecosystems were 'closed' towards outside influence and thus worked towards a state of internal balance. Humans and cultural intervention were seen as external to the

system, causing disturbances that threatened the steady state of the closed system.[7]

McHarg's layered approach depended on an 'ecological inventory' as site analysis. The inventory always considered the same site factors such as climate, geology, hydrology, soils, vegetation and wildlife. His inventory list was criticized for being unnecessarily comprehensive and for depending too heavily on science rather than intuition.[8] However, it was the systematic comprehensiveness that, when applied consistently, would reveal interrelated systems or problems and opportunities that may otherwise be missed. Together the inventory and analysis described how a thorough and multidisciplinary investigation of a region's natural and built features can be combined to identify geographic suitability for different types of land development. His mappings were produced through transparent overlays, which come together to "reveal" the areas best suited for certain types of development. This method of analysis enabled designers to reveal patterns of opportunities and constraints that may not be evident by simply thinking about them.[9]

Conflict between preservation and change exist throughout McHarg's work. He has been criticized due to his neglect of cities and his tendency towards environmental determinism, which favors the conditions of the physical environment over the social. McHarg viewed the designer as an objective data collector, rather than as a creative decision maker, perpetuating the notion of planning as a science and design as an art. Although viewed as reductive, his methods have raised many questions regarding the relationship between landscape architecture, ecological and social processes, which continue to influence landscape architectural discourse.

Regardless of criticism, McHarg's work fundamentally changed the way landscape architecture was both taught and practised. His methods anticipated computer-based geographic information systems (GIS), one of the most important analytical

tools in urban planning and geography today. He promoted landscape architecture as an environmental tool, increasing its visibility while helping define national environmental policy. Although not acknowledged by McHarg, Patrick Geddes' valley section regional analysis resembles McHarg's analysis technique and its influence can be seen on the Potomac River Basin project.[10] Taken together the work of both Geddes and McHarg represents some of the first steps towards a conflated understanding of human and natural systems that contribute to "a theory that links local place with universal processes and phenomena."[11]

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1 McHarg 1996, as quoted in Spirn 2002, 103.
2 Spirn 2002, 103.
3 Ibid, 103.
4 Ibid, 103.
5 McHarg 1969, 7.
6 Miller 2005, 207
7 Hill 2001, 92.
8 Spirn 2002, 108
9 Herrington 2008,107.
10 Ward Thompson 2006, 80.
11 Ibid, 80.

Richard T.T. Forman's Formal Language of Landscape Ecology

In 1986 landscape ecologist Richard T.T. Forman formalized the principles and language of ecology for landscape architecture with his book *Landscape Ecology*.[1] Forman explains landscape ecology as the interaction between spatial pattern and ecological process. It evolved from European traditions of regional geography and vegetation science to combine the spatial approach of the landscape architect with the functional approach of the ecologist. Landscape ecology offered new theories, concepts, and methods that revealed the importance of spatial patterns in understanding the dynamics and interactions between ecosystems.[2]

Until this time ecology as a branch of biological science said little about humans in ecosystems.   Forman's book was the first synthesis of modern landscape ecology for understanding and improving land-use patterns. The 1995 publication *Land Mosaics: The Ecology of Landscapes and Regions* expanded upon his early work to include regions and larger territories including cities, moving towards a global view of human impact and influence on ecological systems.[3] Together these publications explain concepts, theories and methods for understanding interacting ecological communities through diagrammatic spatial pattern relationships, using a graphic style and visual language accessible to designers.   Forman's work began a trajectory of landscape ecology that outlines a way for the science of ecology to engage with global urbanization, highlighting the occurrence and importance of natural systems in urban regions.[4]

Forman's most recent publication *Urban Regions: Ecology and Planning Beyond the City*, is the culmination of his past research.   Forman analyzes thirty-eight urban regions from various countries, including England, Canada, Japan, Korea, Australia and Brazil to understand patterns of urban spread and sprawl.   Each region is analyzed using principles from landscape ecology, transportation and hydrology.   Spatial patterns for sustainable land mosaics are identified from such

broad contexts as sense of place and biodiversity.[5]   Research from this book was included in the Harvard GSD Exhibition on 'Ecological Urbanism' in April 2009.

Forman's work, when taken together with McHarg's, encourages a cross-disciplinary sensibility in landscape architecture, encouraging communication and collaboration with ecologists to find solutions to land-use challenges, reducing landscape fragmentation and degradation, while fostering an understanding of process versus form.

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1 Forman, 1986.
2 Dramstad et al. 1996.
3 Forman 1995.
4 Forman 2008, xix.
5 Ibid.

Anne Whiston Spirn and The Granite Garden

"But you say all this may be very fine but landscape architects are finally designers – when will you speak to ecology and design? I will. "[1] Accordingly, McHarg acknowledged the question most asked of him by students, and by the mid 1970s Ian McHarg began to integrate aspects of ecological design into the curriculum at the University of Pennsylvania where Anne Whiston Spirn was a graduate student in landscape architecture. However, his approach remained largely planning oriented and failed to recognize the relationship of ecological processes within cultural systems.

In many ways Spirn picked up where McHarg left off. In 1984 *The Granite Garden: Urban Nature and Human Design* argued for an understanding of landscape synonymous with that of the city which began to dissolve the binary understandings of nature and culture, rural and urban and planning and design which plagued landscape architecture since McHarg's work.[2] Spirn integrated McHarg's approach into the city, looking at processes of nature within both densely built urban zones and the residual, non-built patches. She advocated an understanding of urbanism that included 'natural' infrastructural considerations in the city, acknowledging an urban ecology. Spirn's work was sympathetic to McHarg's regional planning approach, but critical of his neglect of cities.

In *The Language of Landscape* Spirn developed the concepts of "deep structure" and "deep context" to help develop an integrated nature/culture approach to design in the city.[3] She defines deep structure as the underlying geologic, hydrologic, and bioclimatic processes that form the landscape. Deep context is how these processes interact with culture through time to eventually form the spatial characteristics of a place.[4]

To the idle eye, trees and parks are the sole remnants of nature in the city. But nature in the city is far more than trees and gardens and weeds in sidewalk cracks and vacant lots. It is the air we breathe, the earth we stand on, the water we drink and excrete, and the organisms with which we share our habitat. Nature in the city is the powerful force that can shake the earth and cause it to slide, heave, or crumple. It is a broad flash of exposed rock strata on a hillside, the overgrown outcrops in an abandoned quarry, the millions of organisms cemented in fossiliferous limestone of a downtown building. It is rain and the rushing sound of underground rivers buried in storm sewers. It is water from a faucet, delivered by pipes from some outlying river or reservoir, then used and washed away into the sewer, returned to the waters of river and sea. Nature in the city is an evening breeze, a corkscrew eddy swirling down the face of a building, the sun and the sky. Nature in the city is dogs and cats, rats in the basement, pigeons on the sidewalks, raccoons in culverts, and falcons crouched on skyscrapers. It is the consequence of a complex interaction between the multiple purposes and activities of human beings and other living creatures and of the natural processes that govern the transfer of energy, the movement of air, the erosion of the earth, and the hydrologic cycle? The city is part of nature. Nature is a continuum, with wilderness at one pole and the city at the other.

Anne Whiston Spirn 1984, 4.

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1 McHarg 1967,107.
2 Spirn 1984.
3 Spirn 1998.
4 Steiner 2008, 291-292.

New Ecological Thinking

Over the past twenty years there has been a fundamental paradigm shift within ecological thought.[1] Ecosystems once perceived as being closed, deterministic systems that attempt to achieve balance and stability are now regarded as highly dynamic, open and self-organizing, thus unpredictable and constantly in a state of change, responding and adapting to disturbances on a scale from microbial to global.[2]

The science of ecology began as plant ecology before the turn of the century. Botanists began developing taxonomic indices to describe and classify divergent plant communities. By the end of the nineteenth century, botanists understood the basic ideas of succession whereby site disturbance was followed by a recognizable staged sequence of plants, which would result in a community composition similar to the one that existed before the disturbance.[3]

In the early twentieth century Frederick E. Clements, the intellectual father of ecology, believed that each distinct plant community was a single living organism that was subject to cycles of evolution similar to that of a single plant in terms of development, structure and reproduction.[4] This concept of a 'superorganism' dominated ecological thought into the first half of the twentieth century.

In the late 1920s the definition of a plant community was expanded to include all animal inhabitants and redefined to include an understanding of the fundamental processes that give life to the 'superorganism', including "the flow of energy through the community and the cycling of nonorganic elements such as hydrogen, oxygen, nitrogen, and carbon. The 'superorganism' was transformed into the 'system,' now called an 'ecosystem.'"[5]

Ecologists now recognized ecosystems as displaying homeostasis and self-regulation. This led to the definition of what is known as the 'equilibrium paradigm', which was

characterized by four major elements; in their natural state ecological systems are closed, self-regulating systems and nutrients cycle within these systems without significant loss; at its most mature state the system is at balance or equilibrium and any disturbance is caused by forces outside the system; when a disturbance occurs the system goes through phases of succession to return to the state of equilibrium; and humans are not part of the natural world and the interference by humans causes disturbance which threatens the stable equilibrium of a healthy, mature system.[6]

The influence of the 'equilibrum paradigm' gained popularity with the rise of environmentalism in the 1960s and can be seen in Ian McHarg's *Design with Nature.*

This paradigm began to shift in the 1980s with the influence of several factors including ideas regarding evolutionary theory and natural selection. By the 1970s population genetics and population biology were fully incorporated into ecological thinking.[7] The population approach yielded a statistical and problematic perspective for understanding complex phenomena whereby ecologists increasingly began to recognize the role of chance in the natural world. Compounding this, evidence accumulated from decade old studies revealed that nature was unruly and seldom followed the predicted patterns established in the old paradigm.[8]

While equilibrium characterized the old paradigm, the dynamic and changing nature of communities and ecosystems came to characterize the new paradigm. Systems that were previously easy to classify and organize were now thought to be complex with imprecise boundaries.[9] A myriad of factors from outside the system were now seen as influential to the changes in a community. Disturbance, once thought to be extrinsic to the ecosystem, is now seen as inherent to its nature. Species that are constantly subject to disturbance from natural forces exhibit a wide range of reactions and adaptations.[10] Landslides, flooding,

fire and animals are all part of a species' natural setting and as such the species adapts to accommodate these disturbances. In this paradigm, succession is viewed as probabilistic rather than predictable, with each instance being highly dependent on local conditions and events, with multiple options for various, if any, end states. There is no one correct or preferred state for the ecosystem; each state is as 'healthy' and appropriate as the others[11]. Most importantly, in this paradigm, humans must be considered as part of the system and as such, there is no distinction between human culture and nature.[12]

In this paradigm social and ecological systems are linked, adding a social dimension to ecological thinking which was not apparent in earlier models. "An urban landscape is certainly a social system. It is also as much an ecosystem as any rural landscape or wilderness. Just as the restructuring of landscapes by cattle, elephants, or coral do not change scientific abilities to describe those landscapes in ecosystemic terms, just so urban restructuring by people does not change the essential ecological nature of a city."[13]

Adaptive ecological design, as described by landscape architect Nina-Marie Lister, "is one of several rapidly evolving (theoretical and practical) approaches to more sustainable, humane, and environmentally responsible development. It may also be considered a critical approach to navigating the interface between culture and nature."[14]

In most instances, large urban parks require some degree of artificial maintenance and significant inputs, either economically or ecologically, to maintain a steady state.[15] Lister believes that an adaptive ecological design approach based upon new ecological thinking holds the key to long-term sustainability for the design, planning, management and maintenance of large scale landscape architecture.[16] This thinking can be used as a design strategy to generate ecological, cultural, and economic viability. It allows for the development of both ecological and programmatic complexity, biological and socio-cultural diversity, and for all facets of sustainability including economic

health and cultural vitality through complex, layered, flexible, and adaptive design responses. Long-term sustainability - within any system, ecological or social - demands resilience - the ability to recover from disturbance and accommodate change while always functioning in a state of health and adaptation.[17] In park design this means the opposite of certainty and control, rather, the design must allow for the emergence of an operational ecology which will permit self-organization, which is the key to long-term sustainability.

Adaptive ecological design differs from current practices of ecological design, which, despite the paradigm shift in ecological understanding, continues to be ecologically deterministic, top-down, rigid, homogenous, static, and principally concerned with the realistic emulation of ecological form.[18] This model of thinking typically does not include diverse disciplinary perspectives nor does it move beyond symbolism to have operational or functional characteristics.[19]

The implications of adaptive ecological thinking for the planning, design and management of urban ecosystems has a large impact on the fundamental nature of landscape architecture. Large-scale urban park design competitions held over the past decade have allowed this thinking to germinate in theory. The design competition held in 2000 for Downsview Park in Toronto "called for an interpretation of ecology consistent with an adaptive, self-organizing, open system."[20] 'Emergent Ecologies' a proposal led by James Corner and Stan Allen, detailed an adaptive, evolutionary strategy, based upon an operational matrix. Corner's team further developed this idea in their 2001 winning entry for Fresh Kills Landfill on New York's Staten Island. The goal of the project was to reposition the 2,200-acre site from 'landfill to landscape'.

The proposal uses a layering of ecologies, each with its own time frame and physical boundary, to develop a long-term plan for adaptive resilience which will evolve from the current

situation where over forty percent of the site is currently industrial or vacant land to a future condition where over seventy-five percent of the site will be comprised of nature, recreation and residential programs.[21]

Resilience, as an ecological concept, is the ability of a system to experience disturbance and return to a recognizable steady state, to adjust in the face of challenging conditions.[22] Landscape architect Julia Czerniak describes a park's capacity for resilience to lie in its "ability to accommodate diverse and shifting social, cultural, technological, and political desires while maintaining its identity."[23] She further states that the key to programming for resilience in park design lies "in the strategic design of its organizational systems and logics – whether infrastructure, form, or modes of operation – that enables it to absorb and facilitate change yet maintain its design sensibility"[24]

The landscape strategy at Fresh Kills Landfill proposes a process of re-colonization through a matrix of 'threads' (linear pathways and elements), 'mats' (surfaces and fields), and 'islands' (clustered groupings) to maximize opportunities for access and movement of both seeds and biota, and people and activities.[25] All programmatic elements of the site are organized using this interrelated system. Linear threads direct the flow of matter around the site including water and energy, which allow for the injection of new life into ecologically stagnant areas of the site. Clusters of islands provide nests of protected habitat, seed sources, and program activities. Surface mats create a patch-like mosaic of porous surfaces to provide self-sustaining coverage, erosion control and native habitat.[26] This initial systems framework of threads, mats and surfaces will evolve into a self-sustaining matrix of possibilities, which can fluctuate and change as the site's needs are redefined. Their role is to form and maintain a robust site identity while ensuring a high level of ecological performance.[27]

The site will be developed in three phases over thirty years. The first phase, 'seeding', secures public access to safe areas of the site, begins restoration of native habitats and develops recreational amenities for the immediate neighborhood. The

second phase allows for infrastructural development of the site. Roadways, utilities, plantings and structures will be set up to allow for a wide range of future public programs. The third phase allows for site programming, which will change and evolve as the site demands – this phase has a long-term adaptability plan, which will allow site programming to be modified as communities and public agencies require alternative needs and circumstances.[28] Accompanying the phased development process is an ambitious communications campaign involving extensive advertising aimed at changing the public perceptions of the site from a landfill to a valuable urban space. This aspect of the project is as important as the phased development as the designers realize the success of the park is contingent on advocacy.

The site is intended to be viewed as a working system rather than a finished master plan, which will allow it to change and react to future ecological and social conditions that are not within the designer's control. In this scenario the landscape architect designs a framework for many possible futures of the site, while what is actually designed is ecological and social resilience. How well this works is yet to be seen as this project and many others like it are only now in their earliest phases. A proposal such as this requires patience and faith from the design community, as at this point there is no way of knowing if this framework will succeed. I believe an early indicator of the success of these multi-year phased projects will be the level of involvement of the landscape architect in the future of the project as the site takes shape, evolves and develops with the changing demands of its context.

1 Cook 2000.
2 Lister 2000, Reed 2005.
3 Cook 2000, 118.
4 Ibid, 118.
5 Ibid, 119.
6 Ibid, 120.
7 Simberloff 1982, 68.
8 Ibid, 70.
9 Cook 2000, 120.
10 Ibid, 120.
11 Lister 2007, 41.
12 Cook 2000, 120.
13 Waltner-Toews et al 2008, ix.
14 Lister 2007, 39 - 40.
15 Ibid, 43.
16 Ibid, 35.
17 Lister 2007, 36.
18 Lister 2007, 40, 47.
19 Ibid, 35.
20 Lister 2007, 37.
21 Field Operations 202, 24.
22 Czerniak 2007, 216.
23 Ibid, 216.
24 Ibid, 216.
25 Field Operations 2002, 24.
26 Ibid, 24.
27 Ibid, 24.
28 Ibid, 24

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Duisburg Nord and the Post Industrial Landscape

Throughout the world, the standard sites for new, large-scale landscape architecture exist on leftover or abandoned land. From post-industrial factory sites, to abandoned military bases and depleted mining fields; brownfields, grayfields, manufactured sites and wastelands are the new venues for landscape architecture. In many urban settings this is the only space available; it is disconnected from its surrounding context and it poses a challenge for alternative development. In these contexts landscape architecture allows for the development of social and ecological systems to re-integrate these left over spaces into society - socially, politically, environmentally, and economically.

In this role the landscape architect has become that of the master designer and planner who recognizes the many disciplinary boundaries a project crosses to engage those whose specialized skills are required. In the best and most successful cases these projects are a synthesis of the many facets of landscape architecture, from environmental planning and landscape management to landscape design and urban planning. The goal of these projects is to reintegrate the left over spaces, physically, environmentally and socially, bringing them back as active social and cultural places while reintroducing them to their urban contexts.

Landschaftspark Duisburg Nord is an example of this type of landscape architecture. It was influenced by its predecessor, landscape architect Richard Haag's Gas Works Park, a park developed in the 1970s on the site of an abandoned coal processing plant on Lake Union in Seattle. Landschaftspark Duisburg Nord takes the general idea of Gas Works Park and pushes it much further to integrate and develop historic patterns from its industrial use with current natural and cultural processes.

The City of Duisburg is situated in one of the largest industrial regions in the world. It is one of seventeen cities along

the Emscher River in northwest Germany's Ruhr District.[1]
Landschaftspark Duisburg Nord began development in 1991
as one of several parks developed from 1989 to 1999 as part
of the ten-year Internationale Bauaustellung Emscher Park
(International Building Exhibition (IBA)), which encompassed the
entire Ruhr District. The Emscher Park covers approximately
800 square kilometers and is composed of networks of green
corridors, parks, brownfields and 'wilderness' that connect the
land between the seventeen cities into a continuous park.[2]

The Landschaftspark is approximately 230 hectares. Its
location benefits from cultural and recreational routes that
run through the park, and bicycle paths that connect the
park to its neighboring cities.[3] The site contains iron blast
furnaces, bunkers, smelting works, service buildings, railway
lines, catwalks, storage areas and utility tunnels which were
abandoned in the 1970s and 1980s when coal reserves became
depleted and the mining operation moved north, leaving high
quality roads and infrastructure, buildings, unemployment and
contaminated land and water. The IBA was established to de-
toxify and revitalize the region with an intention to bring new
life to the abandoned industrial monuments, to re-naturalize
the Emscher River and to develop and attract high-quality
commercial and residential development.[4]

Landschaftspark Duisburg Nord began construction in 1991. It
opened in 1994 amid ongoing development and has since been
the most successful of the Emscher Park projects. The design
of the park has re-inhabited most of the pre-existing industrial
buildings and infrastructure on site. The variety and intensity
of uses on the site vary throughout the day and year. The most
intensely used areas are around the old smelting works, which
most clearly illustrate the new life inhabiting the industrial site.[5]

Latz + Partner's design for the site "concentrated on redefinition,
redirection and reinterpretation of what they found on the
site."[6]   It was "conceived in terms of reuse and use – uses

of different spaces at different times by different individuals and different groups, intersecting only at some times and some places."[7] The blast furnaces, storages areas, smelting works, rail lines and bunkers have been adapted for public use through a variety of sporting, cultural and socializing activities such as diving, climbing, hiking, gardening, sunbathing and theatre. They have been made accessible through bridges and walkways and decontaminated through an intensive strategy of bioremediation and on-site materials recycling which has reversed much of the ecological damage on site. The park is designed with several focal points. Although it lacks a formal circulation system, movement on the site corresponds to the movement and flow of raw materials and goods from when the industrial site was in use. Carefully inserted, brightly colored catwalks allow for visual access to distant portions of the site while an intense lighting scheme illuminates the hulking steel and iron works structures in the night.[8]

This project is an important precedent for contemporary landscape architecture.   From conception, the designer's intentions challenged many established and stereotypical landscape architectural norms.   First, although the park is located on an abandoned historic site and it reuses industrial remnants, it is not nostalgic; the remnants facilitate the social programming of the space, offering places for dynamic activities that are dependent on the industrial structures such as climbing and diving. Volunteer vegetation on the site has been retained and embraced to reflect the changing history of the site, despite protests from conservation groups; in some areas the soil contamination allowed for the spontaneous development of unique plant communities hosting species from around the world which would have initially be brought in with shipping containers.[9]   Second, unlike Olmstead's Back Bay Fens, Latz + Partner's design interventions are not camouflaged; rather, they are skillfully juxtaposed. For example the neon lighting scheme at night contrasts with the subtle, raw, organic color palate of the rusting steel works and wild plant life. When de-contaminating the Emscher River, rather than developing a naturalistic watercourse, the form of the Emscher canal was

maintained. The watercourse is now "a long, rectilinear pond of clean water, its edges punctuated by small, regularly spaced docks at the stairway bottoms;"[10] revealing rather than hiding the designed aspect of the process.

The design of Landschaftspark Duisburg Nord works with its site to create a park that responds to process, both culturally and ecologically. It has become an important precedent for post-industrial landscape architecture. It reacts to a cultural landscape with an attitude where what once was is not maintained in a static state, nor is it demolished and ignored, rather it gives it new life and allows for it to change with the social and economic times. Landscape architect Alan Tate states Duisburg Nord "contains a potent metaphor that 'nature' is more powerful than humankind."[11] The design of the park illuminates the processes of 'nature' through its rusting and decaying steelworks, and culture with the juxtaposition and evolution of new uses within a previously defined space. The park is authentic to its time and the role it plays within its residential, middle-class context. It acts as a reference for post-industrial landscapes such as the High Line in Manhattan - providing a place for the social processes of many divergent groups and classes of people while illuminating environmental, economic, social and industrial flows within existing patterns to illuminate a new syntax of landscape architecture.

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1 Tate 2001, 114.
2 Brown 2001, 66.
3 Tate 2001, 119.
4 Brown 2001, 68-71.
5 Brown 2001, 69.
6 Tate 2001, 120.
7 Brown 2001, 71.
8 Tate 2001, 120.
9 Brown 2001, 71.
10 Ibid, 71.
11 Tate 2001, 122.

James Corner and the Large Urban Park

In the last decade James Corner, landscape architect and current head of landscape architecture at the University of Pennsylvania, has played a key role in the 'revival' of landscape architecture, advancing the theoretical, social, imaginative, and ecological capabilities of the discipline. His theoretical writing and large urban park competition proposals have increased the public profile of the discipline while synthesizing much of the ecological and social thinking from landscape architectural discourse over the past half-century.

As a student of Ian McHarg's at Penn, James Corner took McHarg's structural model of data analysis and combined it with current ecological thinking and contemporary urban landscape considerations to develop the matrix approach used in his team's competition entries for Downsview Park in Toronto, Fresh Kills Landfill in New York, and most recently Shelby Farms Park in Memphis. His methods of representation better explain the process of change inherent to landscapes, while conflating nature and culture into an integrated system.

To Corner, the landscape architect is the choreographer of a larger team, capable of seeing a bigger picture for the future of urban open spaces and landscape architecture.[1]   Here the landscape architect reclaims structural influence over a project, moving from a passive to an active role within the built environment disciplines.

In the 1980s, through research and writing, James Corner set out to raise the level of landscape architectural discourse to be as compelling as that of architectural discourse.[2]   His 1996 book with aerial photographer Alex MacLean, *Taking Measures Across the American Landscape*,[3] was the winner of an American Society of Landscape Architects Communication Award and the 1997 American Institute of Architects Book of the Year Award. It also received attention from *Newsweek* and the *New Yorker*. The book tries to understand the form, pattern, materiality, geometry, and tactility of aerial landscapes

as "the product of their performance, of what they're doing."[4] It investigates landscape representation and its influence on ways of seeing and acting in the world, based on the idea that "how one 'images' the world literally conditions how reality is both conceptualized and shaped."[5] It also discusses multiple possibilities for ways of measuring the environment from the practical to the poetic, suggesting alternative possibilities for planning and quantifying the landscape.

The publication built on Corner's earlier research for the possibilities of eidetic mapping as an informative tool to help liberate landscape architects from conventional methods of representation such as plan, section, and elevation and the standard linear process of design. The eidetic mappings included in T*aking Measures* begin to make visible those aspects of the landscape that are not easily captured in a photograph, such as the poetic and the emotional aspects of the sublime and the beautiful.

This publication reminded landscape architects and introduced those outside of landscape architecture to the idea that landscape is more than scenery; it is a cultural construct, embedded with stories, meaning, and emotions.

Corner's following publication, *Recovering Landscape: Essays in Contemporary Landscape Architecture*, discusses possibilities for the renewed interest in landscape. It proposes methods for thinking about landscape where the "emphasis shifts from landscape as a product of culture to landscape as an agent producing and enriching culture."[6]

Through this research and writing, which includes various articles in addition to the above publications, and his academic position at Penn, Corner has focused on developing conceptual and imaginative 'descriptive mapping' tools to understand and project landscape as heterogeneous and active ground. His team's winning design for Fresh Kills Landfill compounds

all of the significant issues in contemporary landscape architecture and urban open space into one project. It deals with contaminated lands, conflicting community interests, minimal funding, and the shifting of public consciousness to embed value and respect into land that has been neglected, ignored and abused. It develops a process for creating a self-sustaining, ecologically and socially sound ecosystem in a coherent, and politically and economically viable way.

 "It's not an exercise of trying to design a fantastic park; it's an exercise of trying to design a method to get from what it is now to something that is green, public, and safe. And that process would then produce a park that had very unique spatial and aesthetic experiences and properties."[7]

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1 Corner 2008.
2 Ibid.
3 Corner 1996.
4 Corner 2008.
5 Corner 1999b, 153.
6 Corner 1999, 4.
7 Corner 2008.

· Two ·

Summary

A narrow and pedantic taxonomy has persuaded us that there is little or nothing in common between what used to be called civil engineering and garden or landscape architecture, but in fact from an historical perspective their more successful accomplishments are identical in result. The two professions may work for different patrons, but they both reorganize space for human needs, both produce works of art in the truest sense of the term. In the contemporary world it is by recognizing this similarity of purpose that we will eventually formulate a new definition of landscape: a composition of man-made or man-modified [sic] spaces to serve as infrastructure or background for our collective existence; and if background seems inappropriately modest we should remember that in our modern use of the word it means that which underscores not only our identity and presence, but also our history.

J. B. Jackson 1984, 8.

There is a tendency, which is not unique to landscape architectural thinking, where ideas thought to be new are rarely contextualized within their broader framework, they are presented as wholly new and uniquely relevant, rather than as part of a broader scene. This trend may in part be due to the dependence on and fixation with the genius, which comes with design, which I believe to be its most destructive force.

It is clear when researching these theories that they are products of continuity, for example, Ian McHarg's analysis techniques clearly build upon Patrick Geddes' methods for regional analysis from several years earlier. However, McHarg never references Geddes or his methods in any of his research.

Although not always acknowledged, these theories and projects represent an evolving field of thought within landscape architectural theory and they should be referenced as such. When referencing these works it must be remembered that they are a product of their time and thus reflect the cultural, environmental and theoretical milieu present when they emerged.

Three.

03

Landscape Urbanism.

Two Modes: An Overview

Landscape urbanism is a theory for design at a regional scale intended to invoke debate and discussion within the design disciplines on the shifting perceptions of landscape and the city. Landscape urbanism covers the same physical territory as urban design or landscape architecture, while focusing on the decentralized, post-industrial city in the Western world. Landscape urbanism "positions landscape as the generator, rather than backdrop, of urban development. Rather than relying on the formalistic solid/void of older models where void, and by extension, landscape is a residual of architecture, landscape urbanism suggests the opposite, wherein the public landscape infrastructure organizes and shapes urban development."[1]

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My understanding of landscape urbanism separates the theory into two contrasting modes. The first mode, which I refer to as the architectural mode, is alluded to in *Landscape Urbanism: A Manual for the Machinic Landscape* (2003). The second mode, the landscape architectural mode, more closely relates to writing in *The Landscape Urbanism Reader* (2006). Both modes of landscape urbanism use landscape similarly as an analytical tool for looking at the urban condition. When it comes to developing site responses, the results are very different.

The architectural mode uses the idea of landscape as a metaphor to rejuvenate the practice of architecture making it more relevant to an urban condition. This idea can be likened to architect Aldo Rossi's view of the urban in *Architecture of the City* (1984; Italian 1966). Rossi's manifesto encourages a view of the city as the sum of its architecture over time, rather than as a series of singular objects.[2] This view is in opposition to the reductionism of modernist planning.

The architectural mode of landscape urbanism as shown through the work of the Architectural Association's (AA) post-graduate program in landscape urbanism appears to promote specific architectural form generated through computer modeling, as opposed to the diagrammatic, processual mapping responses generated in the landscape architectural mode. The architectural response in most cases corresponds to the creation of 'continuous surfaces' that are derived from social and ecological landscape forces such as landform, geology, climate and water systems.[3] This mode shifts the purview of architecture from one of the vertical to the horizontal, applying an architectural methodology to a horizontal surface. This results in architectural form that responds to the particular moment in time that the data was collected which has much less dynamic operative potential when compared to the processual, strategic frameworks produced within the landscape architectural mode, such as Field Operations response to the Fresh Kills Landfill and Shelby Farms Park. This method appears to be

highly dependent on computer modeling as a way to develop structured strategies for landscape urbanism.[4] Rather than engaging directly with ecological forces this mode uses ecology and ecological theory as a paradigm for connectivity and indeterminacy.[5]

Texts from within *Landscape Urbanism: A Manual for the Machinic Landscape* clearly distance themselves from landscape architecture's legacy of the picturesque. Alejandro Zaera-Polo writes, "the [landscape] discipline never developed a means of producing complexity away from imitation, and never evolved beyond the picturesque."[6] In the same publication Christopher Hight writes, "Landscape design cannot simply become a new model [for urbanism]. Firstly, it shares a problematic genealogy with painting, over-determined by the picturesque and the pictorial. As a result, landscape has operated as a dangerous simulacrum opposed to the model of architecture."[7]

These comments and others of a similar vein speckle the writing in *Landscape Urbanism: A Manual for the Machinic Landscape*. Their intention to discredit landscape architecture as a discipline reveals an architectural ignorance of historic and contemporary landscape architectural theory.

Landscape architect Susan Herrington's recent paper in *Landscape Journal* outlines the role of the picturesque in our understanding of the contemporary world. She credits "the basic properties of Picturesque aesthetics - the primacy given to the role of the imaginative spectator, the recycling of objects deemed unsightly without picturesque aesthetics, the use of views unfamiliar to a twentieth-century, service-oriented culture"[8] for revealing a powerful dimension of landscape's ability to shape human experiences and thus understand and relate to contemporary landscape architectural projects such as the High Line in Manhattan.

Herrington writes that the ideas in the paper might seem contradictory to recent landscape architecture or 'landscape urbanism' precedents which have been praised as refreshing

alternatives to the picturesque style, yet critics are overlooking the aesthetic dimensions of the work, that is, the way these projects work as art, engaging people's imaginations, emotions, and memories.[9] Understanding how recent works of landscape architecture operate in an aesthetic mode, rather than a style or ideological apparatus, helps us understand how and why these works of landscape architecture have had such an overwhelmingly positive response from both the design community and those who use the spaces.

The landscape architectural mode, as alluded to in *The Landscape Urbanism Reader* does not result in architectural form. It maps dynamic infrastructural conditions, including the social and ecological in order to develop a contextual, multidisciplinary site response often resulting in a processual or successional master plan. This mode relies heavily on detailed diagrams of phasing, human and animal habitats, succession planting and hydrological systems to explain complex site conditions and interrelated site forces. It develops a "space-time ecology that treats all forces and agents working in the urban field and considers them as continuous networks of inter-relationships."[10]

This mode appears to be an evolutionary extension of landscape architecture wherein the nature/culture and planning/design schisms that have historically plagued landscape architecture are beginning to dissolve. Ideas and theories outlined in the previous section of the document illustrate how the discipline of landscape architecture has maintained a consistent ideology through time. Theoretical, technical and scientific advancements within the field and along parallel fields of thought are used to build upon, rather than replace earlier landscape architectural theories, resulting in an all-encompassing landscape architecture, which has melded its own professionally defined boundaries. This lineage is not acknowledged in any way in the landscape urbanist writing.

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1 M'Closkey 2005, 120.
2 Rossi 1984, 21.
3 Bullivant 2006, 123.
4 The pictorial imagery in Landscape Urbanism: A Manual for the Machinic Landscape, which is intended to give form to landscape urbanism, depicts data generated architectural mechanisms which are informed by issues identified through site analysis. I am not certain if they are intended to develop into site-specific design.
5 M'Closkey 2005, 214.
6 Zaera-Polo 2003, 133.
7 Hight 2003, 24.
8 Herrington 2006, 22.
9 Ibid, 22-24.
10 Corner 2006, 30.

Neither of the landscape urbanism modes (as interpreted from landscape urbanist writing) illustrates proof of a contemporary or historic understanding of the scope, scale or theoretical history of landscape architecture.

Background and Publications

A summary of significant events and publications from within the design disciplines and from the self-declared landscape urbanist publications is presented below to outline the origin and background of landscape urbanism as presented in the landscape urbanism literature.

Landscape architect and current head of the landscape architecture department at the University of Pennsylvania, James Corner, first used the term 'landscape as urbanism' in a series of conferences in the 1990s intended to advance landscape architectural thinking beyond its pastoral and historic origins. The first of the conferences entitled 'Constructing Landscapes' was held at the University of Pennsylvania in 1993. The symposium discussed the interface between culture and nature, reaffirming the idea that landscape is a cultural way of seeing rather than a quantifiable object and thus it is open to interpretation, design and transformation. This concept was important to reiterate as the idea that landscapes are neither natural nor given is of central importance to landscape architecture.[1]

A second conference organized by Corner and Alan Balfour, then chairman of the AA, entitled 'The Recovery of Landscapes' was held at the AA in London in 1994. The conference was themed around a concern that "the formation of new landscapes was being suppressed by a general enthusiasm, obsession even, with pastoral and historical landscapes".[2] The conferences resulted in two publications *Landscape Transformed,* a summary of the conference papers, and Corner's 1999 publication *Recovering Landscape: Essays in Contemporary Landscape Architecture*, a collection of essays on contemporary landscape architectural theory and practice, which suggests and clarifies important future directions for the field of landscape architecture. Corner notes in the introduction to *Recovering Landscape* that the

resulting book is much less a record of past discussions, but rather a manifesto-like project, "provoking thought and redefining the terms around which new and reinvigorated forms of landscape architecture may be conceptualized and practiced".[3]

Capitalizing on the renewed interest in landscape architecture generated by these discussions, architect Charles Waldheim organized a conference entitled 'Landscape Urbanism' in 1997 at the Graham Foundation in Chicago.[4] This was the first opportunity to publicly frame the topic of landscape urbanism and elicit discussion and response. The topic was situated as a concept branded with its own identity, separate from the disciplines of landscape architecture, architecture or urban planning.

This conference, together with Corner and Balfour's conference at the AA, instigated a 12-month studio-based graduate degree in landscape urbanism at the AA under the direction of Mohsen Mostafavi, architect and then chairman of the school. At the same time Waldheim implemented a landscape urbanism option for undergraduates in the School of Architecture at the University of Illinois at Chicago to supplement the architectural curriculum, as there is no landscape architectural program offered at the University of Illinois.[5]

In 2003, subsequent to the development of the academic program at the AA, Mohsen Mostafavi and Ciro Najle edited an AA publication entitled *Landscape Urbanism: A Manual for the Machinic Landscape*. This publication showcased recent student work of landscape urbanism from the AA and included several professional essays that grappled with the idea of moving from theory into an ethos of landscape urbanism.

In 2006, several years after the 'Landscape Urbanism' conference, Waldheim published *The Landscape Urbanism Reader* intended as a 'reference manifesto' on landscape

urbanism. The book is a collection of fourteen essays intended to articulate the origins and aspirations of the new field. Waldheim conceived of the book, the conference and the exhibition in parallel with the implementation of the academic program. As mentioned previously, the two publications seem to represent two contrasting modes of landscape urbanism, the architectural mode and the landscape architectural mode.

A 2002 *PRAXIS: A Journal of Writing + Building* issue entirely dedicated to the topic of landscape urbanism includes an introductory article by Charles Waldheim entitled 'Landscape Urbanism: A Genealogy', where Waldheim takes credit for and gives his account of the development of the emerging discipline.[6] In the article Waldheim credits himself and James Corner for being responsible for the *discourse* on landscape urbanism, while citing Corner as being responsible for the emergence of the term 'landscape as urbanism'.[7] Waldheim credits post-modern critiques of modernist planning as being the true roots of landscape urbanism, while citing Tschumi and Koolhaas's La Villette competition entries for "effectively introducing postmodern ideas of open-endedness and indeterminacy" and signaling "landscape's emergent role as a primary conceptual medium of postmodern urbanism: layered, non-hierarchical, flexible, and strategic."[8]

The history of landscape urbanism in both Mastafavi and Waldheim's publications briefly cite landscape architectural theory as having a minimal role in the emergence of landscape urbanism, downplaying its relevance in comparison to architectural theories of landscape and urbanism, which emerged in the 1980s from architects and theorists such as Bernhard Tschumi, Rem Koolhaas and Kenneth Frampton.

The role of Charles Waldheim is suspect. He has positioned himself as the key voice in landscape urbanism literature and has largely shaped much of the discourse and history on the term. He has clearly attempted to align landscape urbanism with architecture as per his genealogical writing, distancing it from landscape architectural discourse. However he does

maintain his alignment with Corner, citing Corner as a key figure in the emergence of the discourse. Corner himself does not reference landscape urbanism in his own work, rather he aligns his practice with landscape architecture.

Charles Waldheim holds a Bachelor of Design from the University of Florida (1986) and a Master's Degree in Architecture from The University of Pennsylvania (1989). When *The Landscape Urbanism Reader* was published Charles Waldheim was an Associate Professor and the Director of the Landscape Architecture program at the University of Toronto. This past spring, the recently appointed Dean of the Harvard Graduate School of Design, architect Mohsen Mostafavi, announced the appointment of Charles Waldheim as Chair of the Department of Landscape Architecture at the Harvard GSD beginning July 2009.[9]

The following section of this document explores the role of landscape and urbanism in architecture, including the above referenced citations from Waldheim.

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1 Corner 1999c, x.
2 Ibid, x.
3 Ibid, xi.
4 Waldheim 2006, 8.
5 Ibid, 8.
6 Waldheim 2002.
7 Ibid, 12
8 Ibid, 14.
9 Harvard University Graduate School of Design.

Four.

04

Landscape and Urbanism in Architecture.

Increasingly, landscape is emerging as a model for urbanism. Landscape has traditionally been defined as the art of organizing horizontal surfaces. It bears an obvious relationship to the extended field of the contemporary city, and also to the newly emerging interest in topological surface. By paying careful attention to these surface conditions – not only configuration, but also materiality and performance – designers can activate space and produce urban effects without the weighty apparatus of traditional space making.

Stan Allen 2001, 124.

Ville Radieuse and Broadacre City: the Height of Modernist Planning

In the mid-20th century, those thinking about cities believed that they were clearly organized, simply ordered, and thus predictable, capable of being designed and planned in such a way that the quality of life of their residents could be directly improved by manipulating their physical form. This was a view that was widely held throughout architecture, indeed throughout the social sciences. It was founded on the belief that the social world, and its representation in physical artifacts such as cities was coherent and understandable in the same way that the physical world had been understood since the Enlightenment.

Michael Batty 1997, 321.

Charles Waldheim cites that the ideas surrounding the emergence of 'landscape as urbanism' coincided with the "death of modern architecture" as proclaimed by Charles Jencks in 1977.[1] The modernist planning philosophy was rejected for many reasons that are epitomized in Frank Lloyd Wright and Le Corbusier's model cities.

In the early twentieth century Wright and Le Corbusier worked independently on visions for the ideal city, the city for the twentieth century. Both modernist architects were responding to the uncontrolled urban growth of the nineteenth century where cities were segregated by social status and the majority of the working class were housed in tenements – large, crowded row houses, inaccessible to light or fresh air. Their ideal cities "were the manifestoes for an urban revolution".[2] They were accompanied by detailed programs to radically change the distribution of wealth and power, which were deemed necessary in order to implement their designs.

Wright and Le Corbusier were intending to solve both the urban crisis, and the social crisis of the early twentieth century by

the creation of social solidarity through design. Designs for both utopian cities were conceived using the technological innovations of their age: the automobile, the radio, telephone and skyscraper.

Both architects called for a total rethinking of the established principles of urban planning and design. Rather than mitigating the problems of the existing cities, they sought to start afresh, which meant both rebuilding and abandoning existing city structures. Their utopian visions were the "most ambitious and complex statements of the belief that reforming the physical environment can revolutionize the total life of a society".[3]

Frank Lloyd Wright's 'Broadacre City' was conceived and developed between 1924 and 1959. It was the antithesis of his life's work and shared many philosophical principles with the Regional Planning Association of America and some of those of Ebenezer Howard's Garden City. Specifically: the rejection of the big city; an aversion to financial capital and landlordism; an anarchistic rejection of big government; confidence in the liberating promise of new technologies; and a belief in the homesteading principle which allows landowners to live and work by their own labor, farming their own land to make a living.[4]

There were also many differences. In Broadacre City, Wright was not liberating people from the city to join together co-operatively, his goal was to allow them individual freedom, merging town and country into one, rather than creating two separate societies.[5]   Above all, Wright believed that new technologies would transform America into a nation of free independent farmers and proprietors. Wright believed that the automobile and the telephone could overcome distance, no longer making it necessary to live in centralized organizations.[6] He believed that extreme decentralization would allow for universal ownership of the land without losing the cohesion and efficiency of the 'city', allowing the world of concentrated

wealth and power to be replaced by one in which the means of production would be accessible to all. "The most advanced technology thus pointed the way for a revival of the democratic hopes of the eighteenth century: Edison and Ford would resurrect Jefferson,"[7] creating a true democracy. Once a homestead was complete and the family owned their plot of land, independence would allow the worker to live by their own labor, working their land if necessary, no longer having "to submit to exploitative wages or poor working conditions. Thus the return of the family as the basic economic unit would solve the labor problem."[8]

One "city" could sprawl over 100 square miles without a recognizable centre. Every citizen would be allowed the right to as much land as needed with a minimum of an acre per person. Cultural centers, houses, factories, stores and office buildings were scattered throughout farmland and forest, accessible only by car. The center of democratic life was located in each home. People were intended to work part time on their land and part time in the various factories, offices or shops, which were connected with networks of superhighways. "Wright believed that individuality would make it possible for everyone to live his chosen life style on his own land."[9]

Wright's model for Broadacre City was not based in any physical location. It was a generic city intended to be duplicated throughout America. In many respects this model was the first automobile oriented suburb and has been duplicated throughout North America. Journalist Joel Garreau refers to this condition as 'Edge City'. "Edge Cities represent the third wave of our lives pushing into new frontiers in this half century. First, we moved our homes out past the traditional idea of what constituted a city. This was the suburbanization of America, especially after World War II. Then we wearied of returning downtown for the necessities of life, so we moved our marketplaces out to where we lived. This was the malling of America, especially in the 1960s and 1970s. Today, we have moved our means of creating wealth, the essence of urbanism - our jobs - out to where most of us have lived and shopped for two generations. That has led to the rise of Edge City."[10]

Contrastingly, Le Corbusier believed that the existing city was not dense enough. It offered too much individuality. His ideal city was based on a model for Paris, where he lived for most of his life. Le Corbusier believed that the Machine Age was killing the city. The introduction of the automobile was threatening to destroy the economy and obliterate the city's beauty.[11] "Paris was his symbol of a whole civilization in danger of being destroyed by the very tools which might save it."[12]

Le Corbusier's 'Contemporary City for Three Million People' in 1922 and 'The Radiant City' in 1935 were his answer to the perceived destruction of Paris. His goal was to design a complete environment in which people, nature, and the machine would be reconciled and "the fundamental principles of urbanism" would be formulated.[13] He believed that the organic city, which emerged as a result of individual decisions, was of the past. The Machine Age would create a city impossible to build with one's hands alone.

The key to Le Corbusier's designs was a paradox: decongest the centre of the city to increase density. In doing so he sought to improve circulation and increase the amount of open space. Build high on a small part of the ground.[14] For this to happen Le Corbusier demanded a clear open site in the centre of Paris, the existing city centre was to be destroyed and rebuilt.

Le Corbusier's plan shares many similarities with Ebenezer Howard's *Garden City* - a planned, self-contained community built outside of the city centre, balancing the benefits of the city and the country. Howard's communities would be surrounded by greenbelts, families would live in single-family dwellings and there would be a balance of housing, agriculture and industry in each community. Howard's vision was outlined in his book *To-morrow: a Peaceful Path to Real Reform* published in 1898 and re-issued in 1902 as *Garden Cities of To-morrow.* Howard's ideal garden city would house 32,000 people on a site of 6,000 acres.[15] Once it reached 32,000 people the community would be self-sufficient and a new garden city would be developed nearby, while always maintaining the surrounding belt of countryside.[16]

Le Corbusier's plan is referred to as the vertical garden city as it shared similarities with Howard's ideal while also reconciling many aspects of Howard's plan that Le Corbusier found problematic. The Contemporary City was spatially defined based on a specific, segregated social structure. Where you live depended on where you worked. At the centre were twenty-four symmetrically organized glass and steel skyscrapers, each sixty stories high and completely surrounded with park intended to house the elite: industrialists, scientists and artists. These twenty-four towers would provide for between 400,000 and 600,000 top jobs, leaving 95 percent of the ground left open, housing the headquarters for business and industry in the Contemporary City, where large bureaucracies could coordinate production.[17] Below there are no corridor streets or roadways filled with traffic. Rather, the streets are the building elevators that rise straight up into the skyscrapers rather than spreading horizontally and the ground plane is covered with trees. Outside this zone there would be two types of residential areas, six-storey luxury apartments designed in rows with 85 per cent of the ground left open as green space followed by more modest accommodation for the workers, built around courtyards in a uniform grid leaving 48 percent open. Blue-collared workers would live in garden apartments in satellite units.[18]

The Contemporary City was perfectly symmetrical with a right-angled grid of streets with an east-west, north-south superhighway forming the central axes, intersecting at the centre of the city. The plan was geometric in structure, as opposed to curvilinear, meandering, or 'organic', as Le Corbusier believed "a geometrical lay-out means that mathematics play their part. There is no first-rate human production but has geometry at its base."[19] The geometry of the city was intended to symbolize the power of the plan, the triumph of social order over chaos. The city was to be serviced by a transportation system of superhighways, subways, access roads, bicycle paths and pedestrian walks; each designed to facilitate the most efficient movement possible.[20]

In *The Death and Life of Great American Cities*, Jane Jacobs delivered one of the most influential critiques of Le Corbusier's urban design theories. Jacobs' primary criticism of Le Corbusier faults him for neglecting the human facet of the city.[21] His design was one based on mathematics and statistical analysis, which greatly reduced the complexity of the city and negated social concerns.

By the mid twentieth century "the aridity of modernist theories on urbanism had reached an extreme",[22] and the pragmatic thinking and writing of theorists such as Kevin Lynch, Jane Jacobs and Robert Venturi were readily absorbed. Modernism, and in particular, modernist urban planning, was criticized for being reductionist, oversimplifying the city into binaries while heavily relying on visual aesthetics as ordering principles, rather than focusing on social, economic or ecological concerns. Both proposals have come to represent the end of the modernist ideal.

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1 Jencks 1977.
2 Fishman 1982, 4.
3 Ibid, 4.
4 Hall 1996, 287.
5 Ibid, 287.
6 Fishman 1982, 123.
7 Ibid, 123.
8 Ibid, 130.
9 Ibid, 9.
10 Garreau 1991, 4.
11 Fishman 1982, 182.
12 Ibid, 183.
13 Ibid, 190.
14 Hall 1996, 207.
15 Howard 1965, 140, 51.
16 Ibid, 142.
17 Fishman 1982, 10.
18 Hall 1996, 209.
19 Le Corbusier 1978, 165.
20 Fishman 1982, 191.
21 Jacobs 1961.
22 Jencks 2006, 18.

CIAM, Team X and Mat Building

Le Corbusier founded The Congrès International d'Architecture Moderne (CIAM) or International Congress of Modern Architecture in 1928 in Paris as a series of invitational conferences that brought together international modern architects.[1]

The intention of CIAM was "to create an international avant-garde of modern architecture. It was to be an elite new structure of association for architects to advance their cause against the then-dominant neo-classicism of the academies of architecture, which its founders hoped would place the new architecture into its 'true economic and social environment'."[2] The organization was hugely influential in formalizing the architectural principles and social dimension of the modern movement.

The fourth CIAM meeting in 1933 discussed principles of "The Functional City" which signaled the broadening of CIAM's scope from architecture to urban planning. CIAM proposed that the social problems faced by cities could be resolved through social and functional segregation into "dwellings", tall residential units or apartment blocks set in greenery.[3] In 1942 Le Corbusier published a highly edited form of these principles as the 'Athens Charter'.

Following World War II many of the urban planning principles developed in the Athens Charter were being moderately implemented in the re-building of Europe. However, due to financial constraints, misinterpretation, and popular resistance, the CIAM felt their ideals were being compromised. In 1953, following the tenth CIAM meeting in Dubrovnik, several 'young generation' members of the CIAM including Alison and Peter Smithson had become disillusioned by the resulting CIAM influence in both Europe and the United States. The Smithson's formed Team X, or Team 10 out of a working group that was initially assembled to prepare for the tenth CIAM meeting.[4] Six years later, in 1959, the CIAM disbanded as a result of diverging viewpoints.

Team 10 challenged several of CIAM's established doctrinaire ideals such as those underlying Functionalism and the *Athens Charter*. They worked for several years developing their own theories of architecture and urbanism which included the mat building typology that emerged in the 1960s as a "response to, and as a sign of dissatisfaction with, the CIAM separation between uses and between urbanism and architecture."[5]

It was through the mat building typology that Alison and Peter Smithson first indirectly introduced the concept of landscape into architectural discourse. Team 10 and the Smithson's "work has recently been positioned as a progenitor to contemporary architects' interest in flexibility, indeterminacy and landscape. The Smithson's were instrumental in prompting a shift from fixed functionalism to one in which time was recognized as a primary factor in design."[6]

Alison Smithson introduced the concept of mat buildings in 1974 in the article *How to Recognize and Read Mat-Building*.[7] In the article, Smithson states that "mat-building can be said to epitomize the anonymous collective; where the functions come to enrich the fabric, and the individual gains new freedoms of action through a new and shuffled order, based on interconnection, close-knit patterns of association, and possibilities for growth, diminution, and change."[8]

The Smithson's mat building typology is a response to architecture that calls for "efficiency in land use, indeterminacy in size and shape, flexibility in building use, and mixture in program. It expresses architecture's increasing encroachment on both city and landscape and as the open exchange between structure (building) and infrastructure (context) that this encroachment signals."[9]

Mat buildings are characterized as being low-rise and high-density, homogeneous in layout and consisting of systematic repetition in building elements such as columns, skylights or

modular rooms. The repetition provides a conceptual and spatial framework for possibilities of inhabitation. "By virtue of its seemingly endless repetition, the building becomes an environment unto itself."[10] The mat building process aims to integrate the building to the landscape through the associated patterns of the city block. It aims for a high degree of connectivity both within the built structure and to the context, which is intended to allow for continuously changing incremental growth and an easy appropriation of space over time.[11]

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1 Mumford 2002, 9.
2 Ibid, 9.
3 Ibid, 87.
4 Ibid, 249.
5 Sarkis 2001b, 15.
6 M'Closkey 2005, 121.
7 Smithson 1974.
8 Smithson 1974, 573.
9 Sarkis 2001b, 13.
10 Ibid, 14.
11 Ibid.

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From Object to Field and Surface Conditions

In the 2001 article *Mat-Urbanism: The Thick 2-D*, Stan Allen proposes extending the mat building typology into urbanism and landscape as a way to 'formalize' informal urbanism. The article attempts to use the Smithson's mat building typology as a formal tool to help move architecture beyond the object to the idea of surface or field, which builds on Allen's 1997 article entitled *From Object to Field.* Here Allen discusses the possibilities of the mat building typology for giving "space to the active unfolding of urban life without abrogating the architect's responsibility to provide some form of order … mat building instead proposes a loose scaffolding based on the systematic organization of the parts. The architect can design the system, but cannot expect to control all of the individual parts."[1] This system recognizes that true urbanism is authored by its citizens over extended periods of time, thus this method allows for a period of evolution and includes a time dimension, as opposed to traditional architecture.[2]

Mat urbanism is "antifigural, antirepresentational, and antimonumental. Its job is not to articulate or represent specified functions, but rather to create an open field where the fullest range of possible events might take place …this overall intensity based on repetition and accumulation suggests that there is a scale threshold below which mat building effects are not visible."[3] Here functions and events configure space, rather than the architectural frame. Spaces are only referred to and differentiated by varying intensities of occupation occurring along more or less continuous surfaces.[4] There would be no distinction between interior and exterior space, rather both part of one continuous surface.

Allen believes that the promise of mat urbanism lies in the unanticipated, in the possibilities for the occupation of the voids, the spaces that exist outside of the architect's control - where time allows the mat to extend and field takes precedence over the object.[5]

Both Stan Allen and architect Alex Wall have written about surface conditions. Wall suggests an understanding of surface as "the extensive and inclusive ground-plane of the city, to the 'field' that accommodates the buildings, roads, utilities, open spaces, neighborhoods, and natural habitats."[6] This suggests a shift in understanding from object to field. Allen suggests a further shift in the architectural understanding of the surface from "thin and immaterial – ephemeral schrims of data,"[7] to a condition where the performative aspects of the surface are understood - to what is clearly a landscape architectural understanding of surface where "slope, hardness or softness, permeability, depth, or soil chemistry are all variables that influence the behavior of surfaces … from the tendency to shed or hold water to the ability to support traffic, events, or plant life."[8]

An example of mat building is Foreign Office Architects' Yokohama Port Terminal in Japan. The entire project is conceived as 'landscape' or 'surface'; interior space and exterior space flow together into one.[9] It is a built example of landscape urbanism operating in the architectural mode, however, Allen's 'surface condition' is not yet achieved in this project, nor in architectural landscape urbanism, here the surface is maintained as a computer generated schrim of data, lacking in performance characteristics. The architecture lifts flaps of skin from the ground, and mutates them into contorted twists and folds. The building spreads out into horizontal building and re-emerges in three-dimensional form. This surface is not landscape.

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1 Allen 2001, 122.
2 Ibid, 122
3 Ibid, 122.
4 Ibid, 120.
5 Ibid, 122.
6 Wall 1999, 233.
7 Ibid, 124.
8 Ibid, 124.
9 Wall 1999.

INSERTION // *The Emergence of 'Urban Design'*

Ideas of 'redefining professional boundaries' and the necessity for a 'cross-disciplinary view of urbanism' are as significant in the ideas forming landscape urbanism as they were in the early 1950s with the emergence of urban design. There are many parallels within the development of the two schools of thought. Where urban design ultimately evolved into an architectural foray into planning - with landscape architecture taking a peripheral role as the role of ecology was not a primary concern of the time, landscape urbanism has emerged as the urban design foray into landscape architecture, with an understanding that the disciplinary tools of landscape architecture are aligned to respond to the growing issues of urban disconnection, brownfield reclamation and expansive urban growth. Landscape urbanism can be regarded as a second attempt to grasp the complexity of the city as was desired with urban design in the 1950s, rather than simplifying, this approach attempts to maintain the complexity of site, issues and context as the ideas about a project unfold.

Today, fifty years after the initial conference of urban design at the Harvard Graduate School of Design (GSD), no singular definition of urban design is broadly shared, and the idea has "evolved less as a technical discipline than as a frame of mind shared by those of several disciplinary foundations committed to cities and to improving urban ways of life."[1]

Urban design grew out of the mid twentieth century concern of urban sprawl and decay. The primary goal was to develop 'common ground' among the design disciplines - initially architecture, planning and landscape architecture, to deal with urban development issues beyond the mastery of a single design discipline.[2] Today, "urban design has largely been the domain of urban-minded architects."[3]

"The initial cadre of self-described urban designers, primarily architects, viewed urban design as at the intersection of planning and architecture, where it would mediate and

overcome the perceived gaps between the two. Urban design, many believed, had to concern itself primarily with the tougher mandates of Modern Architecture and its transformative urban manifestos, not with the softer art of designing with natural things or fostering kindness to ecosystems."[4]

Since the 1950s the term urban design has been adopted across disciplines. Planners, landscape architects and architects all use the term and have given it meaning within their own disciplines, while ways of conceiving and achieving 'urban design' remain disciplinarily distinct.

The development of urban design at Harvard in the 1950s began as mainly "an academic exercise whose actual built outcomes remain unclear."[5] The widening division between the 'art of building' and the 'science of planning' was not helpful for the rebuilding of cities required after World War II. Ideas for a new city design discipline were in the air since the 1940s both in North America and in Europe with the CIAM (Congrès Internationaux d'Architecture Moderne).[6]

The concept of urban design emerged with Josep Lluís Sert, the newly appointed Dean at Harvard GSD who, at the time, was also the president of the CIAM. Sert shared the conception of the 'architect-planner' with the members of the CIAM as "someone who could organize the "mutual relation of parts" involved in urbanism instead of focusing on the design of any individual part".[7] Le Corbusier and the Dutch, German, and Soviet avant-gardes of the CIAM developed this idea in the early 1930s.[8]

In 1953 Sert began using the term in a lecture of the same name soon after he was appointed Dean at Harvard.[9] There was an awareness that the 'urban' was moving, changing and growing at an ungraspable rate, and an understanding that the divisionary disciplinary boundaries, or the old ways of seeing, would not be adequate to grasp and effect the current rate

of change. There was an obvious understanding that design, planning, and administration lacked the capacity to function as a whole, which was needed for the design disciplines to influence the changing city.

Sert criticized the last generation of planners for turning their backs on the 'city proper' and its inhuman scale, the traffic congestion, the air pollution and the overcrowding. Sert viewed this situation as correctable. He foresaw the challenge now for designers to "carry out the large civic complexes: the integration of city planning, architecture and landscape architecture; the building of a complete environment" in existing urban centers, similar to what existed in Washington, which he praised for its "architecturally planned centre."[10]

On April 9 and 10, 1956 the first urban design conference was held at the GSD to discuss the possibilities for 'an era of synthesis' between the design disciplines of architecture, city planning and landscape architecture. Sert's intention with the conference was both to gauge the level of interest in the idea from practising architects, landscape architects and planners, and to define 'urban design' and formulate a broad set of principles around which the idea might be founded. By this time an urban design curriculum was beginning to be shaped at Harvard and an urban design program was underway.[11]

At this time Sert was not intending to increase the professional role of the architect, nor was he intending to develop a super-professional who would have knowledge from across the disciplinary boundaries. Rather, he was advocating for a new attitude where the urban designer would be the facilitator of others' disciplinary agendas.[12]

In his opening remarks, Sert articulated that his primary intention was to develop 'common ground' between professions and requested they set aside their own personal agendas in favor of developing a shared perspective:

"Each of them [architecture, landscape architecture, road

engineering, and city planning] is trying to establish a new set of principles and a new language of forms, but it also seems logical now that synthesis or reunion of progress in the different professions be brought together into urban design to get a total picture of our physical environment by integration of those efforts."[13]

While the first conference successfully acknowledged the issue of having to adapt the design professional to be able to grasp and influence the complicated urban terrain, and there was a coming together of the disparate design professionals, the common ground had yet to be established. There was an equal concern among the design professionals present at the conference, including architects Robert Geddes and Richard Neutra, planners Edmond Bacon, Lewis Mumford and Charles Eliot, landscape architects Garrett Eckbo and Hideo Sasaki, and writers Charles Abrams and Jane Jacobs (then associate editor of *Architectural Forum*), among others, that the way of seeing and understanding the city required radical change and that the "professions" needed to be adapted to affect this change.[14] Also raised at the conference was a discussion regarding "the forces that are shaping the city today", which generated considerable debate among the conference attendees.[15]

The second conference held in April 1957 aimed to further define the term urban design.[16] Sert clarified at this conference that the discussion would be confined to the design section of the planning process, in an attempt to find greater focus and clarity in the breadth of discussion. At this time many of the issues of urban complexity raised at the first conference were dropped for a more simplistic understanding of the city, which was easier to grasp and affect, although contradictory to the initial intention and scope of the term urban design.[17]

By the third conference in April 1959 the first project case studies were discussed. Criteria for choosing the case study projects are not documented in conference proceedings.[18] The third conference clearly marked urban design at Harvard as an architectural endeavor to come together with planning, as

there was a clear lack of landscape architectural focus in the discussion and case studies. This would set the tone for all future conference on urban design at Harvard and for the future understanding of the term. "The 'common ground' in which architecture, landscape architecture and planning would come together to deal with the problem of urbanism quickly gave way to a narrower architectural conception of urban design's role in the world."[19]

The tenth urban design conference in 1966 again raised the issue of the definition of urban design. There was still significant debate about what exactly that definition was.[20]

In my education urban design is a generative term for large-scale landscape architecture. There is almost no distinction made between landscape architecture and urban design, the terms are used interchangeably. There is no additional cross-disciplinary collaboration when referencing urban design; it happens in the confines of the landscape architecture studio and utilizes the same approaches and tools used in landscape architecture. I am sure the same can be said for the architectural approach to urban design, which happens in the architecture studio, or the urban planning approach, which happens in the planning studio.

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1 Krieger 2008, viii.
2 Ibid, ix.
3 Ibid, ix.
4 Ibid, x.
5 Mumford 2008, 15
6 Krieger 2008a, 113.
7 Mumford 2008, 16
8 Ibid, 16.
9 Mumford 2008, 17.
10 Ibid, 17. Washington was the first North American City to implement formal planning principles. Between 1895 and 1906 the city secured a park commission, developed a district highway plan, developed the first enforceable building height and zoning laws, implemented a planning committee under Daniel Burnham and Fredrick Law Olmsted, and mapped

their streets. Hancock, John L. 1967. Planners in the changing American city, 1900-1940. Journal of the American Planning Association. 33(5) 293.
11 Marshall 2008, 45.
12 Ibid, 43.
13 Sert 1956, 97.
14 Marshall 2008, 45.
15 Ibid, 46.
16 Ibid, 46.
17 Ibid, 48.
18 Ibid, 48.
19 Ibid, 48-49.
20 Ibid, 51.

INSERTION // *'Ecological Urbanism' and the Role of the Manifesto*

The goal of the three-day 'Ecological Urbanism: Alternative and Sustainable Cities of the Future' conference, in April 2009 at the Harvard GSD, organized by the current Dean of the GSD, Mohsen Mostafavi, was to bring "together design practitioners, students and theorists, economists, engineers, environmental scientists, politicians and public health specialists, with the goal of reaching a more robust understanding of ecological urbanism and what it might be in the future."[1]

I had anticipated that the conference would be a logical next step in the landscape urbanism endeavor where the more abstract theories presented under the banner of landscape urbanism would become more realized and accessible to a broader disciplinary audience. I was particularly hopeful of this as the conference was organized by Mostafavi and included Charles Waldheim, together the top two voices, or the 'experts' on landscape urbanism. Also included were Pierre Belanger (Waldheim's colleague from U of T and now also at Harvard), Nina-Marie Lister, and Chris Reed who were all active in contributing to the emergent discourse at the beginning of the decade.

In many ways the conference was the follow-up I had anticipated, just not in the way I had anticipated. It served to solidify some of my ideas and emerging thoughts on landscape urbanism while helping me sort through my ideas on landscape urbanism and this practicum process as a whole.

Fifty-six speakers were included in the three-day conference, many of them from the various departments at Harvard, all of them leaders in their chosen fields. The transdisciplinary topic, ecological urbanism, is of global interest, concern and importance. The intention of the conference was not to develop a cross-disciplinary definition of the term or to come to an agreement on the meaning of ecological urbanism; rather it was intended to begin a conversation on the possibilities

for an ecological urbanism. The projects, issues and theories presented ranged in scale from the very large, such as MASDAR, the carbon-neutral, zero waste city planned for Abu Dhabi, to grass roots community driven initiatives such as ReBar's Park(ing) project.

Regardless of the diversity of speakers present and the passionate ways in which they spoke, there were no ecologists included in the fifty-six speakers. There were many projected possibilities for ecology, but the conference lacked a necessary discussion on the many ways in which *ecology* can be understood, especially by those outside of the field. In many instances the words ecology, sustainability and green were used interchangeably and ecology was still being referenced as a metaphor. Overall the conference seemed a bit like a campaign for Earth Day, rather than an academic endeavor to project new possibilities for urban development, i.e. bits and pieces versus a discussion about the whole.

The most interesting part of the conference, and possibly the most enlightening in terms of ecological urbanism and landscape urbanism, or interdisciplinary urban thinking, were the projects on display in the exhibition hall. They indicated a level of cross-disciplinary thinking between engineers, planners, architects, biologists, political scientists, industrial designers, and landscape architects not apparent in the three-day discussions. Projects such as a biodegradable coffin suggests a future where the need for cemetery infrastructure no longer exists in the way we think of it today. There were several versions of a city car presented, which stack and fold into tiny charging stations. A 'soft-city' made of 'soft-houses' was shown where exterior cladding takes the form of a textile that turns the sun's energy into electricity.

What the conference did do was position 'ecological urbanism' as a buzzword to supplant landscape urbanism. I will wait

until the forthcoming conference publication edited by Gareth Doherty before this can be confirmed. When reading *Landscape Urbanism: A Manual for the Machinic Landscape* I am struck by the manifesto-like aura it emits and I am curious as to whether this will be perceived with the ecological urbanism publication.

Of the design disciplines architecture appears to be the most dependent and focused on the manifesto as a tool for advancing and validating architectural thought. Rarely does the architectural manifesto build upon past works; rather it is a call to begin a new chapter of architectural thought and action.

In architecture the manifesto serves many purposes. It documents an ideology and is a call for grand, sweeping change. It is a deliberate public declaration of who you are, what you believe in and what you are against. It defines your voice and your view of the world in a way that condemns any other actions or theories. The manifesto endorses the role of the 'genius' and validates an egocentric attitude. Rem Koolhaas, one of the keynote speakers at the Ecological Urbanism Conference, is the modern day master of the manifesto. Koolhaas is unapologetic with his manifestos and this attitude has gained him notoriety and reverence in his field and within many others.

All signs point to the notion that landscape urbanism is a manifesto for architecture and perhaps 'ecological urbanism' is as well.

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1 Harvard Graduate School of Design

Most publications on landscape urbanism largely agree on the importance of three seminal design competitions as catalysts for the emergence of the field; Parc de la Villette, Parc Downsview Park and Fresh Kills Landfill (as discussed in Part Two of this document). Ideas proposed in these highly publicized public park competition entries would later be defined as emerging theories of landscape urbanism.

Architecture as Landscape: Tschumi and Koolhaas' Park de la Villette

The 1982 international design competition for Parc de la Villette called for intensively programmed public space on a 125-acre industrial remnant in a working-class Paris neighborhood.[1] The project brief was extremely detailed. It was strongly desired that the competition should generate a new type of urban space that would act as a model for parks for the twenty-first century.[2]

The first place entry by architect Bernard Tschumi and the second place entry by architect Rem Koolhaus/OMA are recurrently cited as project precedents that "orchestrate urban program as landscape process"[3], a reccurring theme in landscape urbanist writing. Waldheim writes that what was revolutionary about these projects was the way in which they used "landscape as a medium through which to order programmatic and political change over time, especially complex arrangements of urban activities".[4] Both entries treated the site as a building, attempting to define and organize architectural program without the constructs of architectural form. They use an architectural approach to justify and order a changing, indeterminate program.

Tschumi's park is intended to defy the ideologies of both modern and post-modern architecture, treating the site as a *tabula rasa*, consciously ignoring the context and all historic design precedents.[5] Tschumi stated that his park "could be conceived as one of the largest *buildings* ever constructed".[6] It would be conceived as part of the city, rather than a "green, shapeless space without meaning."[7]

Landscape architectural historian Elizabeth Meyer writes that "first, Tschumi defines his park by denouncing park design traditions (as he knows them) for their inadequacies in the modern city. Two park typologies, the aesthetic park of repose and the *hortus conclusus*, are rejected as are two park ideals, 'the time honored prototype of park as the image of nature' and

the 'undefiled Utopian world in miniature'…he creates a park that relies on formal strategies from outside the landscape, from the operations of literary criticism, cinematography, modern art, and architecture… a conscious making of the new park from assemblages, from fragments of other disciplines and operations".[8]

The form of Tschumi's la Villette is derived from a strategy of superimposition where the relationship of parts to the whole is unpredictable versus the approach where parts are subservient and reinforce the whole.[9] The three systems of organization, *points, lines and surfaces* are intended to create an "organizing structure that could exist independent of use, a structure without center or hierarchy, a structure that would negate the simplistic assumption of a causal relationship between a programme and the resulting architecture and staging a series of tensions that enhances the dynamism of the park",[10] creating a space to accommodate changing activities as needed. Together these elements act as an "essay in the architectural theory of 'deconstruction' or 'disjunction'",[11] where event and program are intended to take precedence over stylistic moves which dominated post-modern architectural discourse.[12] Culture and technology are intended to substitute for nature as the basis for the design.[13]

Of the three seminal competitions, Parc de la Villette is the only one that has been built. As a landscape architectural project, Meyer states that La Villette "is wallowing in kitsch and in the image of the Picturesque".[14] Landscape architect Alan Tate in *Great City Parks* writes that the components of the park that do most to enhance its dynamism are the one-off individual theme gardens, particularly Chemetoff's Bamboo Garden and landscape architect Bernard Leitner's Sound Garden. The gardens provide a welcome change of level, creating enclosure and a sense of escape, playing to the senses while revealing elements of the urban infrastructure that the park chose to

ignore, "reminding the visitor that this small, green respite was actually but a fragment of an urban agglomeration that to exist required massive amounts of servicing."[15]

Architectural historian Marc Treib writes that the *folies,* "while intriguing as investigations of architectural form, do little to energize the park's sensual appeal beyond the visual. Ultimately there is precious little of genuine… experiential… interest as landscape architecture on the site. Basically, the landscape comprises some lawn and some trees. The ideas used to conceive the park are rich and evocative; the experience on the site is limited and spatially uninteresting, however".[16] Treib writes that "Parc de la Villette illustrates the problems that plague borrowing parallel ideas or forms from other disciplines, and the distortion that often accompanies translation. In this… example, what has been written about the project is far more intriguing than what one encounters on site… The success or failure of such landscape designs does not ultimately derive from their intellectual origins, but whether they "work" on their own merits as places and landscapes without recourse to jargon and verbal explanation".[17]

While Tschumi's park seeks unexpected combinations of activities, Koolhaas and OMA's second place entry seeks an accumulation of activities. "The OMA plan is a strategy consisting of a series of innumerable functional schemes. Repetitive activities like toilets, bars, and picnic places are distributed with a certain frequency over the terrain. A too confined coulisse landscape has been chosen as the architectural form".[18]

Submitted as a designed response to architect and theorist Rem Koolhaas's *Delirious New York: A Retroactive Manifesto for Manhattan* (1978) the second place winning entry for Paris's Parc de la Villette embodies Manhattan's 'culture of congestion', using it to produce a "metropolitan density without architecture: a culture of invisible congestion."[19]

According to OMA, the volume of proposed functions called

for in the competition brief would result in a plan too large for the park's location.   Rather than submitting a design for the park, OMA proposed a method that – combining programmatic instability with architectural specificity – will eventually, they believe, generate a park.[20]

The project has two parts, "zonal strips as a specific layer of urban structure" and "four additional superimposed layers: confetti, access and circulation, the composition of major elements, and connections and elaborations."[21]   The layer of urban structure is composed of 50-metre wide strips which zone the multiple land uses required in the park program. The strips are intended to mimic the floors of the Manhattan skyscraper, or the Manhattan grid, with the architectural operations within the strips equivalent of the skyscraper.[22]   The design of the strips corresponds to Koolhaas's ideas on 'lobotomy' and 'schism', which he defines in *Delirious New York* as the fundamental operative principles of the skyscraper. Lobotomy refers to the separation of the exterior and interior architecture of the skyscraper, severing the transitional architectural desire to seek a connection between the two. The exterior is intended to respond to the morphologically identical surrounding city blocks, while the interior architecture is intended to fulfill diverse programmatic functions. Schism refers to the complete disconnection between the interior floors of the building and the vertical distribution of the program amongst them.[23]

The design of the strips conforms to the ideas of lobotomy and schism.   Schism allows each strip to accommodate a different program allowing for ultimate flexibility, as there is no necessary relationship between strips. Lobotomy occurs through the placement of screens of trees that run parallel to the strips. The 'exterior' – the screens of trees, is concerned with formalism, while the interior is concerned with functionalism.[24] The horizontal bands across the site create a continuous atmosphere along its length and rapid change in experience when moving perpendicularly through the site.   The 'culture of congestion' comes from the organization and design of the strips themselves, which contain facilities, kiosks, playgrounds

and barbecue spots, which are distributed mathematically according to different point grids.[25] 'Stability' on the site is provided by the 'natural' elements – the rows of trees and the round forest, while the remaining elements are intended to fluctuate in program and activity.

The resultant quality of the project would be determined by the uses, juxtapositions, and adjacency of the alternating programs over time. Architect Alex Wall believes that this method would offer the city a flexible framework rather than a fixed design, which would potentially adapt as the requirements of the site change. The innovation in this proposal lies in its potential capacity to adapt to change, anticipating the uncertainties of future urban development.[26]

Waldheim writes that "through their deployment of postmodern ideas of open-endedness and indeterminacy, Tschumi's and Koolhaas's projects for Parc de la Villette signaled the role that landscape would come to play as a medium through which to articulate a postmodern urbanism: layered, non-hierarchical, flexible and strategic. Both schemes offered a nascent form of landscape urbanism, constructing a horizontal field of infrastructure that might accommodate all sorts of urban activities, planned and unplanned, imagined and unimagined, over time."[27]

As a park, what would Koolhaas/OMA's proposal be? How would it transition from 'tactic' into a designed, spatial, dimensional place? What are its playgrounds, its kiosks? How would it relate to its context and how would its inevitable form hold up to its potential for change?

Waldheim's review of Parc de la Villette as an early piece of landscape urbanism echoes Tschumi's misunderstanding of landscape architectural history: "The competition for la Villette began a trajectory of postmodern urban park, in which landscape was itself conceived as a complex medium capable of articulating relations between urban infrastructure, public events, and indeterminate urban futures for large post-

industrial sites, rather than simply as healthful exceptions to the unhealthy city that surrounded them".[28]

In architectural theory, these parks are touted as avant-garde examples of postmodern landscapes, satisfying the project brief's request for 'a new park for the 21st century' but, as Elizabeth Meyer suggests, Tschumi's misunderstanding of landscape architectural history through omission or ignorance undermines La Villette's status as an avant-garde landscape design.[29]   She concludes that la Villette "may expand architecture's boundaries to include the park, but it does not expand the boundaries of landscape design".[30] Its approach to generate a new type of urban space for the 21st century is innovative as a piece of architecture in its application of the open plan to the urban park, but as a public space la Villette is not innovative, even if the theories used to generate it were. Tschumi's park is not a new type for landscape architecture.[31] Corner further suggests that the park is not even avant-garde for architecture or for avant-garde, as "it actually looks like early twentieth century Constructivism" which informed much of Tschumi's research for more than ten years. "An evolutionary avant-garde is clearly something different from an avant-garde of endless rupture."[32]

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1 Meyer 1991,16.
2 Ibid, 17.
3 Waldheim 2002, 13.
4 Idib, 13.
5 Tate 2001, 56.
6 Tschumi as cited in Holden 1983, 67.
7 Ibid, 67.
8 Meyer 1991, 17-18.
9 Ibid, 16.
10 Tschumi quoted in Tate 2001, 62.
11 Tate 2001, 56.
12 Waldheim 2002, 13.
13 Meyer 1991, 16.
14 Ibid, 16.
15 Treib 2001, 53.
16 Treib 1995, 52.

17 Ibid, 52.
18 Baljon 1992, 198.
19 Koolhaas 1985, 235
20 OMA 2000, 246.
21 Dagenhart 1989, 90-91.
22 Ibid, 91.
23 Koolhaas 1978, 128.
24 Dagenhart 1989, 91.
25 OMA 2000, 246.
26 Wall 1999, 237.
27 Waldheim 2006, 41.
28 Waldheim 2006, 40.
29 Meyer 1991, 25.
30 Ibid, 26.
31 Ibid, 25.
32 Corner 1991, 12

Flexibility, Indeterminacy and Parc Downsview Park

In 1999, an international competition was held to design Canada's first National Urban Park on a 130-hectare former Canadian Armed Forces military base in Toronto.[1] The project brief invited submissions that "asked the competitors to design for fluctuations over time in ecosystem conditions and human use, while creating a significant cultural work in an urban space."[2] The competition attracted several entries from the same finalists as the La Villette competition from seventeen years earlier.

I have been avoiding writing about Downsview Parc for a few reasons. I have mixed feelings about the winning submission by Rem Koolhaas and graphic designer Bruce Mau. I am frustrated and confused as to how this project won a competition that should have been so important for both landscape architecture and Canada. The competition and the results as implemented today, are an embarrassment for landscape architecture. From the research I have done on the project proposal and from discussions I have had, I am still unclear as to why this project was a) chosen as the winner of a design competition and b) why it is continually referenced as a precedent of any kind, in particular, as a precedent for a performative landscape. I cannot help but wonder if there is something I am missing, or still don't understand; although somehow, I don't think there is.

However, there are lessons that can be learned from the Koolhaas/Mau submission, and I believe that the outcome of this project represents what would have happened had Koolhaas won the La Villette competition.

The Downsview competition brief is as much a precedent for 'landscape urbanism' as the project proposals from the five short-listed teams. As architect R.E. Somol states in Czerniak's *Case: Downsview Park Toronto* (2001) the "'requests' outlined in the brief were largely a post facto response to the work of firms that had already 'answered' them in several previous projects. In both the structure of the competition and the content of its

results, contingency became overdetermined. This sense of contingency is reinforced by current landscape discourse with its shift from an emphasis on landscape-as-picture (and its historical associations to painting) to landscape-as-process (and thus the contemporary metanarrative of biology)."[3]

The following goals, among others, were implicit in the competition brief: " … respond to the social and natural histories of the site while developing its potential as a new landscape – one capable of supporting new as well as old ecologies and an evolving array of public uses and events. The design is expected to inaugurate and structure the transformation of the site while remaining open to change and growth over time"; "Nature and humanity within it are to be treated as dynamic phenomena, constantly changing and interacting, no longer able to be described as in a balanced state."; "The design … is to achieve a standard of excellence and innovation that will be acknowledged internationally … [as] a significant cultural work that addresses the changing relationship between society and nature."[4]; "'cope with and indulge' the complexity of contemporary thinking, encouraging designers to create 'new ecologies'"; "the brief recommended rethinking conventional disciplinary scopes and boundaries, which prompted the formation of large interdisciplinary teams."[5]

The competition had 179 submissions from 22 countries.[6] The work of the five short-listed teams favored phased frameworks over fixed form, showing succession planning in layered, diagrammatic styles indicating animal habitats, planting and hydrological systems reminiscent of McHarg's overlays, which has since become a clichéd indicator for projects deemed landscape urbanism.

Emergent Ecologies, the submission led by James Corner and Stan Allen is the most technically detailed and site specific of the submissions. It uses detailed site sections to indicate the level and depth of information presented. This project acted as a starting point for Field Operations' winning scheme for Fresh Kills Landfill a few years later.

Koolhaas/Mau's entry is almost a complete opposite of that of Corner and Allen. It won the competition because it suggested the least in terms of specificity. It did not commit to anything while offering the most in terms of its graphic capabilities. The jury considered "Tree City to hold the greatest promise and propose the most convincing approach for the future of Downsview." The jury report does not suggest why this project won the competition. It states that it "emerged early and compellingly as every jury member's first choice" and " that there were, in the views of the jurors, no other project of comparable vision and promise." There is no discussion as to how the submission does or does not respond to the project requirements, particularly the ecological considerations and to those of community interests. However, the report says that this submission "exceeds the requirements of the competition." [7]

The proposal is an approach to 'grow the park' and contained a recipe to do so: "Manufacture nature + 1000 pathways + Grow the park + Curate culture + Sacrifice and save + Destination and dispersal = low density metropolitan life."[8] The proposal suggests planting trees and making paths. It has little to say about ecological or urban specificities.

The graphic plan for the proposal is a series of differently colored and sized circles arranged into a pattern, overlaid onto the site plan and juxtaposed with a series of meandering pathways. The circles represent site features such as wetlands, parking lots, sports fields, trees, gardens and water.[9] The project submission suggests, "Tree City is a diagram designed to maximize the park's options for survival. Each landscape cluster will be left unassigned of program. Over the course of the park's life, functions will be assigned to insure its own existence. Recreational and cultural activities will be programmed to enhance the park's leisure domain while commercial activities will be assigned when necessary to offset the park's evolving maintenance costs."[10]

Landscape ecologist Kristina Hill suggests that Tree City was chosen by the jury as the winning entry because the competition

"brief's rejection of ecological specificity and its promotion of flexibility presaged the outcome of the competition, creating the opportunity for the OMA team's relatively underdesigned scheme to be selected as the winner."[11]

Today the Downsview project has committed to a spatial strategy designed by PMA Landscape Architects in 2002 under the direction of Bruce Mau Design. The role of Tree City in the design is unclear. However, today neither Koolhaas nor Mau are affiliated with the project. Between 2000 and 2006, 30,000 trees of various species were planted in the park as part of the Canada Forest Initiative.[12]   Very little else happened on the site until the spring of 2008 when Toronto City Councilor David Soknacki became the Chair of the Downsview Park Board of Directors.[13] Currently, 148 hectares of the 230 hectare site will be public open space; the rest of the land will be dedicated to mixed-use development including a big-box centre, residential, commercial, retail and a new subway station.[14]

In 2008 Soknacki estimated that approximately two years would be needed to gain the various municipal and federal approvals needed to get the project back on track.[15] Currently there is a 'lake' and a 'mound' under construction on the site, which I am assuming follow PMA Landscape Architects master plan.

In an article written in 2003 entitled *What's Up Downsview* Waldheim remained hopeful about the progress of the park. He considers the lack of site work a "gestational period," its length indicative of "the promise that the high quality of contemporary public space" the project purported.[16] Waldheim suggests looking to the time frame of Parc de la Villette in Paris as a gauge to the length of time that contemporary urban parks demand for design and construction. La Villette was conceived in a two-stage design competition between 1982 and 1983 while its construction was completed in 1997.[17] A better indicator would be Fresh Kills Landfill, a project of a considerably larger scope and scale, which began in 2001, only three years after Downsview. From its inception, Fresh Kills included an extensive advertising campaign and public participatory process to

ensure the public is informed and involved in the lengthy project time frame, eliminating any doubt as to what is happening on the Fresh Kills Site. Today, many people in Toronto have not yet heard of Downsview Park, and they have no idea that it is intended to be Canada's first National Urban Park.

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1 Somol 2001, 127.
2 Hill 2001, 91.
3 Somol 2001, 128.
4 Hill 2001, 91 as quoted in the competition brief.
5 Czerniak 2001, 14 as quoted in the competition brief.
6 Polo 2000, 14.
7 Downview Park Jury 2001, 33.
8 Koolhaas and Mau 2001, 75.
9 Ibid, 80.
10 Ibid, 80.
11 Hill 2001, 96.
12 Parc Downsview Park 2009.
13 Hume 2008.
14 Ibid.
15 Ibid.
16 Waldheim 2003, 17.
17 Ibid, 17.

Kenneth Frampton's Regionalism

Architectural critic and historian Kenneth Frampton's 1983 essay *Towards a Critical Regionalism: Six Points for an Architecture of Resistance* was based upon French philosopher Paul Ricoeur's theory that the widespread use of technology was homogenizing the world, resulting in one mass, mediocre culture. The essay introduced Frampton's belief in the use of landscape as an operative tool to resist the globalizing, homogenizing tendencies of the built environment.[1] Frampton's critical regionalism alluded to the inherent power of the site or the genius loci to create an "architecture of resistance" to "mediate the impact of universal civilization".[2]

In the 1990s Frampton advanced these initial ideas suggesting that in order to resist the "flattening out" of cultures, re-engagement with the landscape through "megaforms" and "landforms" was necessary, emphasizing "the need for topographic transformations in terms of landscape rather than in terms of self-contained single structures."[3] In his 1994 essay 'Towards an Urban Landscape', Frampton refers to architect Peter Rowe's 1991 book *Making a Middle Landscape* that identifies suburbia as a 'middle landscape' between city and countryside. Frampton argues that site-specific landscape can be the intermediary between built form and the 'middle landscape'.[4] He states that "priority should now be accorded to landscape, rather than to freestanding built form…The dystopia of the megalopolis is already an irreversible historical fact: it has long since installed a new way of life, not to say a new nature…I would submit that instead we need to conceive of a remedial landscape that is capable of playing a critical and compensatory role in relation to the ongoing, destructive commodyification [sic] of our man-made world."[5]

Frampton's stance to create a local cultural resistance to globalization through the use of landscape has provided one of the many platforms for the conceptual evolution of landscape urbanism from an architectural perspective.

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1 Shannon 2006, 144.
2 Frampton 1983, 26.
3 Frampton 1993.
4 Shannon 2006, 144.
5 Frampton 1994.

Rem Koolhaas' Urbanism

Since the 1970s architect, theorist and writer Rem Koolhaas and the Office for Metropolitan Architecture (OMA) have been critically engaging the role of the program in architecture and public space, attempting "in a number of ways, to push ideas of program toward more dynamic and productive ends."[1]

In 1978 Koolhaas's *Delirious New York: A Retroactive Manifesto for Manhattan* was published. In it Koolhaas 'reads' the city of Manhattan, focusing on the discontinuities between the architecture of the city (the skyscraper) and the activities of the city (the program).[2] Koolhaas's manifesto explains Manhattan's architecture as the physical embodiment of a 'culture of congestion', redefining Manhattan's urban morphology to include the skyscraper and its operative principles of disassociating form from program, in addition to the Manhattan grid of blocks and the three-dimensional zoning envelope.[3]

Koolhaas and OMA's second place winning entry for Paris's Parc de la Villette (1982) embodies Manhattan's 'culture of congestion', using it to produce a "metropolitan density without architecture: a culture of invisible congestion."[4] The proposal is "more of a tactic than a design",[5] incorporating a large number of facilities to create a literal translation of a skyscraper. An architectural section through the building becomes the plan for the Parisian site, dividing the park into bands to be adapted to different programs as its uses change over time.

This essay and resulting project entry set the tone for Koolhaas's theoretical writing on urbanism. He continues to explore contemporary urbanism from a critical perspective in texts like 'The Contemporary City' (1988), 'What Ever Happened to Urbanism' (1994) and 'The Generic City' (1994). In these texts Koolhaas suggests 'the staging of uncertainty', 'the irrigation of territories with potential' and 'the creation of enabling fields that accommodate process', suggest the concept of 'landscape as infrastructure'.

Bill Lacy, executive director and juror of the Pritzker Architecture Prize, which Koolhaas received in 2000, heralded Koolhaas for his ability to "continually blur the line between urban design and architecture,"[6] which seems to be a desired outcome of the landscape urbanism endeavor. Although Rem Koolhaas himself does not write about landscape urbanism, his competition entries for La Villette and Parc Downsview Park (2000) are referenced as two of the movement's most definitive projects and are reoccurring cited by Waldheim as having helped shape the emerging theories.

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1 Wall 1999, 237.
2 Dagenhart 1989, 89.
3 Ibid, 89.
4 Koolhaas 1985, 235.
5 Baljon 1992, 123.
6 Otero-Pailos 2000, 220.

Regardless of the relationship these projects have to landscape architecture, they signaled a shift in the architectural understanding of the city. Architecture became a piece of urbanism, rather than urbanism itself. The space between the objects was acknowledged as architects began to take a sudden interest in "landscape's conceptual scope; with its capacity to theorize sites, territories, ecosystems, networks, and infrastructures, and to organize large urban fields"[1] as a way to understand and potentially re-engage with city making.

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1 Corner 2006, 23.

Closing.

I know it's difficult to talk about teamwork in our times because we are living through a period of a cult of the individual and the genius, but with all due respect to genius[es], it is not to them that we owe our best cities. They are rather the product of honest anonymous crews. In terms of urban design, the best cities are the most harmonious; those that have great unity and balance in their different parts. Scale and the knowledge of scale is the key to this balanced effect which is much more important for a city than to have striking isolated moments that are the expressions of a genius.

Josep Lluís Sert 1956, 97.

From the opening address to the first Conference on Urban Design at the Harvard GSD in 1956

What it is.

This process has been a way for me to understand what landscape architecture is and how it can navigate the shifting boundaries of environmental design - how I can navigate the shifting boundaries of environmental design. It has shown me that architecture, much like landscape architecture, is a discipline in flux, in an ongoing process of regularly redefining itself in order to maintain its autonomy. Both disciplines are struggling for relevance in the midst of cities that change, move, shift and grow quite easily without them.

From the beginning landscape urbanism alienated itself from landscape architecture, the discipline that should have been its biggest ally. Landscape architecture has an established history for approaching open space networks. Drawing on this history and grounding landscape urbanism as a second stage to this thinking would allow landscape urbanism to have a greater relevance in design and planning theory, thus helping develop it into an approach for environmental design, an approach to be used and understood across disciplinary boundaries. However, the literature clearly distances itself from landscape architectural thinking and theory, dismissing landscape architectural milestones as outdated and misdirected.

This lack of continuity and acknowledgement in thinking and theory is not unique to landscape urbanism. In landscape architecture much of the more highly regarded landscape thinking, such as those theories and methods of McHarg and Corner, are not situated relative to the precedents that came before them. The discipline of landscape architecture must give credit and make more frequent reference to past theoretical work in order to evolve more cohesively as a theoretical discipline and be taken more seriously by parallel schools of thought. Perhaps if the discipline of landscape architecture were to maintain the attitude of 'know your history, maintain your integrity' landscape urbanism would not have emerged as a 'reaction' to landscape architecture but rather an accompaniment.

Say one thing and do another.

Much of landscape urbanism's appeal for me resided in its claim to dissolve the boundaries between planning and design, architecture, landscape architecture and urban planning – to become an 'interdisciplinary' endeavor and to create a common language. This was what was said, what was done attempted to dissolve landscape architecture and urban planning into architecture, starting a semantic war over the terms landscape and urbanism. Landscape urbanism, much like urban design from the 1950s as intended by Sert, is correct in the proposition that urbanism requires interdisciplinary thinking. In order for this to be successful each independent discipline must continue to improve upon what they do best and focus on understanding the strengths, histories, values and theories of each related field. This is the only approach for an interdisciplinary urbanism, urban design, landscape urbanism or ecological urbanism. Without this we will not function as a whole and any academy-based cross-disciplinary endeavors will not succeed.

I know I am guilty of stereotyping, simplifying and generally misunderstanding the changing role of architecture and urban planning in the city, and the next steps of this process require a better understanding of what these disciplines do best - as I do not doubt that a hybrid practice of architecture, planning and landscape architecture can exist which works in parallel with environmental engineers, political ecologists, and urban strategists, among others. This will never be realized without first a basic respect and acknowledgement of parallel disciplinary roles. And perhaps this approach to environmental design can only happen at the level of the individual, not the level of the institution.

Gains and losses.

Of the design disciplines landscape architecture has gained the most from landscape urbanism. It has managed to refocus attention within the discipline on the capabilities of landscape

architecture for approaching brown fields and former industrial sites, the 'urban' most referenced in landscape urbanism's rhetoric. At the same time it has reinvigorated the discussion regarding the role of interdisciplinary and multi-scalar design thinking as a way to process and understand the complexity of site. However, there are many skeptics who hear the term and shut down, wanting nothing to do with 'landscape urbanism'. It would be in the best interest of landscape architecture to take the lessons learned and avoid the term altogether.

I have learned that landscape architecture, within its own disciplinary boundaries, has broken free of any pre-conceived molds that may have existed for it. The rift between planning and design that has existed in large-scale landscape architecture since the formal development of urban planning is beginning to be reconciled. It has become a discipline that can freely navigate both the urban and the periphery, accomplishing many of the goals set out by urban design in the 1950s while perhaps truly becoming Landscape Architecture for the first time. This is shown in the multidisciplinary work of offices such as James Corner's Field Operations, Hargreaves and Associates, CHORA, Stoss LU, and West 8, among others.

However, rather than helping to develop a common understanding of landscape across the environmental design disciplines, landscape urbanism has reintroduced the idea of landscape to architecture in a way that creates a larger divide between the disciplines. It has created an architectural understanding of landscape that does not acknowledge landscape architecture's landscape. We are left speaking the same language, but saying entirely different things - running in a circle.

Be honest.

Architecture has always dominated the environmental design disciplines; at its best it considers itself to be the umbrella over landscape architecture, planning and interior design, at its worst, landscape architecture, planning and interior design

do not exist. So it seems, in many instances, architecture often takes on the attitude that it can do all – planning, landscape architecture, industrial design, interior design. The discipline sees itself as far-reaching and limitlessly capable of design at any scale. In the past few decades landscape architecture has begun to get attention from the world. Landscape architects are entering competitions alongside well-known architects and winning. They are getting noticed for their work, an occurrence that has been years in the making. The relationships of the environmental design disciplines, once understood by architecture as falling clearly under the umbrella, no longer fit in a tidy, organized manner. Some see this as a threat, some continue on as usual, while others see it as an opportunity to reassemble in a different way.

At its worst, landscape urbanism is a reaction from architecture out of the threat of shifting power relationships. At its best and without judgment or hidden intentions, landscape urbanism is a way to reassemble in a different way and gain understanding from a different perspective.

It aims to preempt urban change through the establishment of a framework, an infrastructure, or a guide for growth and development at a fast paced, nearly uncontrollable urban scale. This is different than planning, it comes before planning, and it is different than design, as it comes before design as well. It is a new way of thinking about environmental design, while suggesting a means for navigating the blurry edges between the many unruly, indefinable and powerful forces that shape our world.

How this is done is not defined. Rather, landscape urbanism is intended to make us think and imagine how design and planning can work in ways we are not used to, across scales we have trouble conceiving. This is not to say that how does not matter, how does matter, but we have to imagine *what* before we can figure out how, and landscape urbanism helps us imagine this. Most importantly are the possibilities this sort of thinking allows, which can lead to solutions foreign to our traditional

imaginative strategies. This is the landscape urbanism that could have been.

I have formed this understanding only after months of reading, reflection and thought on what landscape urbanism is and what it could be. I believe there are many possibilities for this approach to thinking. However, landscape urbanism will never be this good or this potent - as this landscape urbanism is not to be.

My frustration with landscape urbanism is not with what is it trying to do, rather how it was positioned to do it. When it first appeared it was situated as something distinct, emergent and new. It was also unclear, self referential, and contradictory. It aligned itself with popular thinking, the pop culture of environmental design, picking and choosing bits of architectural theory with which to align itself. It gave no family tree to ground it, no map of where it came from, doing nothing to prepare us for thinking of the *how*. Without this genealogy these ideas have limited merit and they will not go far. Because of this landscape urbanism ~~will fail~~ has failed. Its methods of emergence killed it on arrival.

Landscape urbanism may expand architecture's boundaries to include elements of landscape thinking, but it does not expand the boundaries of landscape design. Its attempt to generate a new approach for urbanism is innovative as architecture, in its effort to expand the discipline's understanding of site, but as a design discipline, or a strategic approach to thinking, landscape urbanism is not innovative.

Thank you.

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