A Conceptual Space for Architecture: Singularity Through Ecological Contingency

When a building masters what Rafael Moneo called its solitude, it transcends the particulars of its original context, gaining distance from the processes, ideas and cultural contingencies that it echoed or rejected. What endure are its lasting spatial and formal qualities: how it channels natural light and air, how it organizes space, and how it adapts to a changing cultural and natural environment. Architecture's placement in the real world may be a contingent act that seems contaminated by the multiplicity of processes that influence its making, but its situation is also what engages the making of a landscape in which it finds critical singularity.

If we consider the definition of autonomy—a freedom or independence from external control or influence—we can argue that the problem with using autonomy as an absolute to describe architecture is that it neglects to question the why and from what of resisting influence. The idea that architecture can be autonomous, as an absolute, that it can be independent from everything external, denies that the search for autonomy is in itself a ideological and relational position—it is as much about saying what architecture should be as what it should not be. A critical quest for autonomy should consider what should be internal to the project or discipline and what should be external to it: a selective process of categorizing forces of influence. Is it possible that the form of the architecture object is in itself the only means to define autonomy? In this paper I seek to interrogate the development of an autonomous architecture that absorbs within the discipline the conceptual space of landscape, by theorizing critical means of engagement with the formal, spatial and performance qualities of its territory, to define critical contingencies that are meaningful through space and time, and to refuse those that can keep it tied to the trivialities of a temporary situation. More specifically, I will examine how the notion of the ecological has permeated from the field of landscape, providing a framework for architectural discourse to theorize the relationship of the idealized and the real, to create new singular form within a situation of multiplicity.

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SITE AND LANDSCAPE: THE SHIFTING GROUND OF ARCHITECTURE

Revisiting Michael Hay’s definition of autonomy as operating in “an ideal moment in a purely conceptual space” invites us to engage with the nature of a conceptual space in itself. Can architecture discourse conceive of such a space where the built form can be generated on purely internal logics? Disciplinary and conceptual independence can always be challenged as soon as architecture has to assume its role in the larger urban condition. As such, in searching an autonomous territory, architecture has had to engage with what Manfredo Tafuri defined as urban ideology, a conceptualization of the landscape, the urban, the rural and the in-between. During critical moments in history, architecture absorbed that landscape as part of the “purely conceptual space” of the project, to extract itself from other interpretations and forces of influence. This dialectic expands the formal investigation “between the role of the architectonic object and that of urban organization.”

By contrast, Hays suggests that the contingent object, what he calls the “instrument of culture” would only be responsive to, or contaminated by the socioeconomic, political and technological processes by which it is generated. If the form of the city represents the organizing principles of these systems and processes, how then can architecture find autonomy within its situation? I suggest it has been the abstraction of the landscape as a conceptual space, ranging from the ideas of region to a contingent ecology, that provides a filtering lens and lays the ground for architecture to observe, select, heighten and transform aspects of its situation, and to critically engage in new formal, spatial and performance agenda.

The polemic of this proposition is that site, which can be naturally conflated with landscape, is understood and conceptualized as a condition of contingency. Landscape, on the other hand, has from its origins asserted its position in the conceptual realm of the idealized. Hence the site, as condition a priori, can be seen as contaminated by the social, political, economic and technological processes acting on this territory. Conversely, through the lens of landscape theory, architecture can explore the potential to select and edit attributes of its site or region, such that a more meaningful dialogue with the construct of landscape—as an evolving idealized space—can take form. Landscape’s new disciplinary autonomy has transformed itself from what Elizabeth Meyer described as a passive setting (or ground) for architecture—and James Corner characterized as a passive product of culture—into an active and strategic agent of culture.

The development of a critical theory for the landscape field, its engagement with ecology and the “aesthetics of sustainability,” resulted in an evolution from its pictorial origins into dynamic systems. Examining this evolution in theory, elucidates how ecological concepts of scale, site and systems have provided theoretical fodder for the discipline of architecture to develop a new conceptual space for formal investigation.

Defining landscape as a conceptual space for architecture is a process of abstraction that starts with the real and moves to the imaginary or idealized. Before the twentieth century, the pictorial definition of landscape transformed observations of reality, through the representation of subjective experience, into an imaginary scenery where the human subject and the architecture object are minimized against a sublime Nature. Architecture often borrowed this imaginary and distant landscape as conceptual ground for autonomous forms that could undermine the contingencies of its real situation. During the last century, scientific tools of measuring, representation, and analysis have made landscape systems more legible in their multiplicity and complexity, allowing the evolution of the conceptual basis of landscape from the pictorial to the ecological. The conceptualization of mechanisms and organizing principles of ecosystems is fostering a new collective imagination of what landscape is. Its conceptual space is a dynamic system in which all parts are interconnected, and interdependent. There is no space outside the discipline of landscape, only different conceptual boundaries to define ecosystems at different scales. This changing paradigm of landscape is profoundly shifting the conceptual ground on which architecture is built.
The recent discourse, where landscape dominates the field of ecological design and urbanism, has redefined the relationship between landscape and architecture. Over the last ten years the theoretical discourse of architecture has turned its attention to notions of site, region and landscape—borrowed from landscape theory—with renewed intensity and interest. Perhaps the discipline has been driven by an internal crisis of meaning, or more likely by the increased attention to the environmental crisis, the importance of the field of sustainability, and the dominance of landscape urbanism that followed the discrediting of twentieth century urban planning. Yet the dialogue between the two fields of theory is not entirely new: throughout their history this dialectic between disciplines generated shifting ideas on the contingencies of architecture production. In fact, the idea of landscape has always provided an idealized space for architecture, but this idealized space has evolved to absorb in its conceptual framework the contingent qualities of the ecological. In order to define our present moment, it is important that we first examine the exchange of ideas between architecture and landscape theory at critical moments in history. Revisiting this dialectic elucidates what the conceptualization of the territory—whether seen as a purely urban artifact or a natural condition—means as a conceptual space for architecture.

**NATURALISM: THE REAL VERSUS THE IDEAL**

“The reduction of the city to a natural phenomenon clearly corresponds to the aesthetics of the Picturesque that English empiricism had introduced in the first decades of the eighteenth century, for which Alexander Cozens, in 1759, had provided a very rich and important theoretical foundation.”

Architectural theorist Manfredo Tafuri suggested that the naturalist concepts of the city resulted from the eighteenth and nineteenth century compositional theory of landscape. In a critique of urban naturalism, Tafuri raises a moral question: “What does it mean, on the ideological level, to liken the city to a natural object?” Tafuri finds in this model of the city a “sublimation of physiocratic theories”, and an ahistorical position, “freed from any structural considerations.” His argument suggests that naturalism allowed architecture a kind of self-destructive autonomy that cleaned its conceptual space of all political and moral questions, to produce projects without any real contingency. This coincides with the rise of typological study of architecture, a search for formal autonomy that exploited the picturesque notion of idealized architecture objects placed in a natural condition. Ironically these site-less types encountered their own failure in what Tafuri described as the “struggle between city and architecture.” By lacking a theory to engage with contingency, architecture was not able to take a critical position in the discourse of urbanism.

This raises another critical question: what sources of influences should architecture critically remain independent from? These influences are just as likely internal to the discipline. The quest for autonomy in Durand’s typological work had the unintended consequence of creating an uncritical uniformity in the discipline, and inhibiting singularity. Efforts for disciplinary autonomy resulted in the formulation of compositional rules that were generated independently from any theory about site contingencies, and thus had little power to engage in an urban ideology. Compositional principles allowed for simple formal accommodations to site geometry, but the objectification of architecture neglected any critical engagement with the space of the landscape. Tafuri described the resulting internal crisis of architecture theory in the nineteenth century when “formal invention seems to proclaim its own primacy”, but at the same time the “obsessive repetition of the inventions” and the urban condition generated by the accumulation of these fragments attested to “the uselessness of the inventive effort made to define their form.”

On the other hand, similar theories that idealized the landscape types of the picturesque and pastoral gave rise to a critical response in landscape theory. Elizabeth Meyer describes critical and alternative views around the notion of site that emerged at the time: the
observation of the site’s precise conditions, the selective representation of its features, and its editing to improve found conditions. Meyer explores how landscape theory in the nineteenth century raised the moral question of “transposing idealized landscape types” to a new continental, regional or local condition. The emergence of these alternative concepts based on scale and ecology were a reaction to landscape’s equivalent of typology. These critical questions about place eventually permeated into architecture when the discipline rejected typology and engaged in an examination of the space and landscape for the contemporary city.

MODERNISM: ABSTRACT SPACE AND TOPOLOGICAL SPACE

The characterization of modernism as the production of spatial continuity between the interior realm of building and the exterior realm of the landscape can be interpreted as a reaction to the nineteenth century objectification of site-less and prescriptive architectural typologies. Most importantly, the modern paradigm did not always relegate the landscape to a background condition a-priori with which the object of architecture dissolves boundaries. Instead a critical proposition emerged where architecture constructs a new landscape, rejecting the notion of landscape as an external condition bounded to nature. Caroline Constant first proposed a new interpretation of Mies van der Rohe’s German pavilion in Barcelona (1929): that it was conceived as a landscape by rejecting historical references to the pavilion of the English landscape garden, undermining its status as an object, overcoming the static quality of the picturesque object terminating a vista, and denying any symbolic references to nature. Through different structural means, Le Corbusier explored both the distant and constructed landscape in Villa Savoye (1929-31), creating an architectural promenade through new forms that represented the fluid movement from the public realm of the exterior landscape to the private realm of a constructed roof landscape. Although projects like the Villa Savoye and Mies’ Farnsworth House (1945-51) continued to frame a distant pictorial landscape, they explored a new architecture theory that initiated a new formal and spatial engagement with the landscape.

At the scale of urbanism, this dialectic took on a different form. Hays describes Mies work in urban proposals in Alexanderplatz (1928) as critical architecture, because it conveyed meaning through resistance, by not being conciliatory with its context. Unlike the de-objectification that Mies later achieved in the Barcelona Pavillion, his urban proposals rely on a language of material objects creating resistance and difference with their context. Although effectively critical of previous forms of urbanism, these objects can be perceived as formulaic – systematizing a formal language that, with a similar effect to the typological objects in the picturesque, is conceived without engaging in the particulars of site. In doing so, the form prioritizes the abstraction the object, and relegates the urban landscape again as a passive ground. This analysis reveals contradictions in the anti-formalist position of Mies van der Rohe, who rejected formal manipulations of architecture objects to conform to existing configurations of urban space, but who is nonetheless creating pure forms that neglect to manipulate the condition at the ground. In the “undifferentiated sameness” (a loss of singularity) of these forms not only “abstain from any dialogue with the physical particulars of their contexts” but also “deny the possibility of attaching significance to the placement or arrangement of the forms.” Once this architecture of resistance is generated, and its language is repeated, its critical stance loses effect. Its impact depends on a temporal interpretation of its resistance that is only possible at the moment of its making and as a historical retrospective. This reading of Mies exposes a conflicting position between architecture and landscape. Elizabeth Meyer described the “abstraction, objecthood, uniqueness and universality that characterized modern art and design” as marginalizing landscape architecture’s focus on matters of site.

Modern architecture had alternative origins to the polemical position of objects in abstract space. Early projects began to engage with the conceptual space of the regional landscape,
as a new source of contingent criticality in architecture. This work aligns with what Elizabeth Meyer described happening in landscape theory: a reaction to the transposition of idealized types and the formulation of concepts tied to place. Reflecting the discourse in the landscape field, we can see distinctions between landscape (the generalized) and site (the specific) in the conceptual space for architecture. Frank Lloyd Wright appropriated the landscape of the Midwestern prairie as a conceptual space for autonomous forms that were singular but repeatable, by generalizing and systematizing formal concerns of solar orientation, climate, spatial continuity, scale and hierarchy in the production of architecture in the northern American landscape, but allowing enough flexibility to engage with multiplicity and specificity by being site-inflected. (Fig. 2) Its unique language emerged from a region, a concept borrowed from the realm of landscape theory. Its translation to architecture provided enough autonomy so that the boundaries of this region were reinterpreted in many different sites.

Similarly, Alvar and Elissa Aalto’s work in Säynätsalo Town Hall in Finland (1949–52), which has been described as inspired by the experience of the landscape of the Italian hilltop town center. The Aaltos situated and generated a new language for modern architecture by importing a traditional image of the civic landscape and significantly transforming it through the material and topological integration of the architecture into the unique Finnish landscape. (Fig. 3) The specifics of site: light, spatial and formal inflections, transformed an idealized model into a uniquely regional and site-specific response. In this manifestation of modernism the origins of the ideas were abstractions of landscapes, but the operations on the real site were contingent, no longer attempting to maintain the legibility of its abstraction.

Significant strides towards autonomy are made in projects that challenge the processes and tendencies of the discipline, using the landscape as a conceptual space in which to generate singular forms. From Mies’ architecture as landscape, to Le Corbusier’s promenade to the constructed landscape of the roof garden, from Frank Lloyd Wright’s transformation of the prairie into a cultural form to the topological projects of Alvar Aalto, these projects rejected the pictorial origins of landscape as the dominant view, and instead transformed the landscape into an active agent of the architecture project.

AN ECOLOGICAL PARADIGM: EMERGING CRITICAL PRACTICES
The contemporary discourse of landscape and urbanism is no longer preoccupied with pure form, but with the ecological performance of form. This new paradigm invites a reinterpretation of the most significant spaces of the nineteenth century landscape. For example, James Corner reconsiders the value of Olmsted’s landscapes, as more than representational space or idealized types, but rather as “ecological vessels and paths”. The view of the landscape through the lens of ecological performance constitutes a profound shift in the readings of the urban, the rural and the in-between. It is critical for architecture to develop a critical consciousness of its role in landscape ecology if it is to engage in a meaningful dialogue with the future of the city. With the urgency of the environmental crisis, at a time when ecology is dominating the discourse of urbanism, engaging landscape ecology as a conceptual space for architectural production is essential to disciplinary relevance and autonomy. That discourse is centered on the notions of constructing or restoring designed ecologies, and architecture has the potential to become an active part of that agenda rather than remain inward looking. The “disciplinary contamination” Elizabeth Meyer has described as “the intermingling of aesthetic discourses and conventions” with knowledge from other disciplines, such as geology and ecology, enriched the vocabulary of landscape architecture by providing new rules of formal composition. That form of disciplinary contamination is proving enriching to architecture, where landscape ecology is becoming a lens to understand the performance of architectural form as an experiential and environmental device.
New forms of critical practice are emerging within this new conceptual space for architecture. Collaborative architecture and landscape practices working in an ecological approach to urbanism reconceive architecture as an active agent of the landscape. The type of projects they develop are contingent to ecological conditions, but in their effort to construct a new landscape, they also become singular forms, independent from the influence of prevailing socio-economic structures, rules or conventions. Ecology is inherently relational, so unlike the landscape of picturesque, as a conceptual space for architecture it does not exclude contingency but rather categorizes, analyzes, selects, and engages with the contingencies and performance of systems. Ecology is a field dedicated to developing abstract models to explain complex and contingent systems. Frameworks of ecological performance can generate new singular forms by engaging complexity, making architecture an active agent in restoring or constructing new urban ecologies.

To interrogate that potential, I want to briefly consider two projects in two significant spaces in the urban landscape of Brooklyn: the Botanical Garden at Prospect Park and the new Brooklyn Bridge Park. These two landscapes, one coastal and one inland, have distinct constructed ecological boundaries between the seemingly “natural” and the urban. Designed at two very different times in history, both of these landscapes perform important

Figure 4: Maryann Thompson Architects with Michael Van Valkenburgh Associates. Brooklyn Bridge Park Pier 6 (2012) Photo: Chuck Choi Photography.
There Are Only Contingent Architectural Objects

ecological functions in the cultural and physical landscape of the city. Prospect Park, the location of the Botanical Garden, is a cultural product of nineteenth and early twentieth century Olmstead theories that idealized pastoral landscapes, but that were also “contaminated” by reading of the geological qualities of its specific site. Now reinterpreted as an ecological space, this landscape has achieved a new significance through contemporary interventions. Brooklyn Bridge Park (2003-present) is an example of the contemporary era of ecological restoration. The landscape is a legible reconstruction of a cargo shipping and storage facility on the waterfront of Brooklyn. Redefining its edges and reconstructing its surface as an open urban park space, this landscape performs important ecological functions of flood management, acoustic absorption, and resilient coastal ecosystems that create a new threshold to the city. Its language is of a dialogue between enhanced nature and infrastructure. In these two landscape spaces we find two architectural projects that reveal ways that collaborative architecture and landscape practices work towards an integrated ecological approach to urbanism. The projects are ecological (contingent to the multiplicities of aesthetic, spatial and environmental performance) but also singular (autonomous from rules or conventions of practice to generate new formal language). The Brooklyn Bridge Park landscape, by Michael Van Valkenburgh Associates, is both explicit about its constructed nature, and assertive about its ecological approach to reuse an industrial landscape. The architecture of the Warming Hut at Pier 6 (2012), by Maryann Thompson Architects, similarly repurposed the object of an industrial building, de-objectifying it by exposing the original core, redefining its edges with a spiraling ramping path that leads to a newly occupied roof terrace, and transforming that ramp into a thick skin by cladding it with the same reclaimed timbers from the demolished structures that are used throughout the park. (Fig.4) The architects describe the layered skin of the spiraling ramp as “mimicking the unfolding qualities of the landscape” creating a “diaphanous counterpoint” to the landforms of the park and the water. By engaging conceptually and materially with the construction of this landscape of reuse—the architecture transforms movement, accessibility, and the material ecology of the site, to create an unfolding landscape condition that could not be generated from a position of absolute autonomy. Architecture achieves singularity, meaning a unique and not repeatable solution, through ecological contingency.

The landscape of the Brooklyn Botanical Garden is highly curated and manicured experience that dissolves into the designed wilderness of Prospect Park. The architecture of the new visitor center by Weiss Manfredi, in collaboration with HM White Landscape Architects,
repurposed this cultural landscape by redefining and converging the role of building and ground. The architects call the garden a “constructed natural environment,” observing how trees and berms separate it from the neighborhood. As you move into the garden, the building creates a new threshold between the urban and garden condition, reinterpreting the form and function of the berm through the organic form and thickly vegetated surface of the roof, an “emergent topography and constructed landform,” that creates “an inhabitable extension of the berm.” As you exit the site, the formal structure of the landscape is heightened by the unraveling of the object of architecture into a thick layering of structure and paths. The landscape architects describe the entire project, building and site, as a system of storm water management. This integrated system also manages circulation, hosts biodiversity and heightens the spatial structure of the spaces and paths of the garden.

These practices are achieving a critical architecture through the negotiation between singularity, the autonomy that Hays called a “resistant authority,” or the “persistent rewriting of a few themes”, and the multiplicity achieved in each project through ecological contingency with specific landscapes. Exploring their body of work, the language is both consistent through the work, but also unique to each place. The construction of the building as a landscape condition, through the use of continuous vertical and horizontal surfaces that unfold on the site, the creation of legibly autonomous but site-inflected forms, the thickening of the building edge, and the primacy of filtered light, constitute some of the themes that are rewritten in each project of these practices, but their site-specificity shows a critical view of contingency that is engaged in reinterpreting existing or creating new cultural forms. These critical practices are evidence that there is great potential in reframing the notions of autonomy and contingency in the discourse of architecture by considering what architecture should be autonomous from—the social, economic and internal sources of

ENDNOTES:
1 In this lecture, Moneo expresses concern over architecture being more interested in drawings and process than in enduring as a construction, as if: “the automatic nature of the production of architecture prevents the object’s autonomy.” See: José Rafael. Moneo, The Solitude of Buildings : Kenzo Tange Lecture, March 9, 1985, George Gund Hall (Cambridge, Ma.: Harvard University, Graduate School of Design, 1986).
4 The publication of the book of essays Site Matters in 2005 (Burns & Kahn), was followed by similar books, such as the Landscape Urbanism Reader in 2006 (Waldheim) and Design Ecologies in 2009 (Blinstein & Tilder).
6 Although Tafuri is taking an explicitly political position, his argument is effectively suggesting that architecture was using naturalism to mask its own relinquishment of any responsibility for the conditions of the city. Ibid., 8.
7 Ibid., 10.
11 Ibid.
14 For more on the geological aspects of Prospect Park see: Meyer, “Site Citations.”
16 Quoting the descriptions by the architects Weiss Manfredi, and the landscape architects from HM White, respectively. See Manfredi, Weiss, Public Natures; and hmwhitesa.com