Constructing Urban Landscapes: New Infrastructures

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Infrastructure has always canalized the flows of urbanization. In addition to being movement conduits, transportation networks are connectors and collectors, sources of communication and exchange for people and programs, and as such they also are places that define the quality of the urban realm. This quality has everything to do with the intensity of exchanges, communications, and movements. The logical conjunction of transportation and development stems from the fact that with the imposition of infrastructure on a territory, the landscape becomes open to domestication. Evidently, infrastructure is part and parcel of regional and urban structuring. Throughout the two-sided history of urbanism, infrastructure has been explicitly designed to initiate, guide, and structure settlement patterns. Besides physical structuring (which is one of its sides) urbanism also stands for—as Louis Wirth put it—a way of life (the other side).1 Since time immemorial, infrastructure has been viewed as a generator of urbanity, and a means by which to structure forms and modes of public life. Infrastructure by definition is public space, the space that makes the built environment transcend the purely functional or economic.

Linking the productive countryside to settlements, canals, roads, and, later, rails, all have formed linear systems of urbanism that tied movement, commerce, exchange, habitation, and so many other forms of urban life into vibrant filaments, which, in turn, have served as initiators of larger development networks: grids, suburban allotments, and eventually highways and ring roads. There is a rich legacy of historical examples of transportation infrastructure that link forms of transportation to urban morphology. The world’s built landscapes, engendered by accessibility, have become part of market mechanisms. They spring from processes of urbanization in which the overall built form of the territory is shaped by successive incremental and sometimes radical interventions that respond to the land or real estate value of their location, and to the indirect return on investment of transportation infrastructure development. In many contexts, the configurative and structuring capacity of infrastructure networks across various scales—from the territory to the city—and the manner in which they underline different places afford surplus values to infrastructure beyond utilities related to mobility and communication, as well as the supply of goods, water, gas and the like.2

The rich bequest of built works of urbanism proves that properly planned and designed infrastructure can qualitatively guide urbanization in a manner that does not merely surrender to the volatile movement of investment capital and power through the creation of logical, systemic, and interdependent relationships. In Paris, Georges-Eugène (Baron) Haussmann modernized the medieval capital between 1852 and 1870 with networks of boulevards that were both brutally imposed on the fabric and embedded in it, and that took advantage of existing monument, topography, and real estate opportunities. Sectional richness was precisely designed, and the landscape, street furniture, building edges, and utilities below the surface were all built concurrently, and formed the city’s system of transportation (including public transportation), promenades, utilities, and power. Simultaneously, they make a new urban environment with an omnipresence of trees and other natural elements. The systematic reintroduction of nature through interconnected systematic tree lines along boulevards and parks such as the Bois de Boulogne and the
Bois de Vincennes were instruments of urban naturalization, an operation that is considered necessary to humanize the artificial and hectic urban world, and to turn the urban into a natural habitat for mankind. Haussmann consequently combined water and fire: a modern integrated infrastructure system of roads, sewage lines, gas pipes, and the like that simultaneously incorporated the archetype of the human habitat: a natural environment full of trees that invited all types of social practices. The functional and the natural overlapped and coexisted.

Similarly, in the United States, Frederick Law Olmsted’s Boston Back Bay Fens and Emerald Necklace (1878–96) cleverly integrated landscape, infrastructure, and architecture to achieve not only a horizontal (planar) juxtaposition of various uses (including vehicular, recreational, and representational spaces) and linkages across various scales (with distinctive places in the city and as part of a larger territorial system), but also sections that included underground infrastructural improvements (subways, sewage lines, water mains, et cetera). The Emerald Necklace, which consists of a 1,100-acre chain of nine parks linked by parkways and waterways, is simultaneously a tidal mitigation system, an automobile parkway, a real estate development project, a public park, and a site for urban gardens, all related to an even larger metropolitan system of parks and parkways. In New York, Robert Moses propelled—during America’s post-Depression era onwards—the notion of the parkway as a system of choreographed high-speed vehicular routes through ribbon-like parks. Park systems accordingly became integrated into the reasoning of urban infrastructure development. Moses’s parkways were inscribed in the metropolitan conception of a city that melded landscape, infrastructure, and urbanization. Infrastructure in the examples of Haussmann, Olmsted, and Moses transcended the purely functional. Infrastructure was not yet reduced to the pure sectoral product that it eventually evolved into during the era of the highway, where it became the sole responsibility of departments of transportation and public works.

The infrastructure of the twenty-first century must surely build upon the legacy of Haussmann, Olmsted, Moses, and others who conceived of integrative systems in which the organization of urbanism and network systems worked with the development of the collective realm. The infrastructure of today clearly must address the formative power of the network, but also that of larger environments and our world’s contemporary challenges, namely climate change and fast globalization, particularly in the non-Western world. Therefore, the elaboration of distinctive design solutions that stress the genius loci of the localities that the network serves is more necessary than ever. Ecological infrastructure can be designed and can work as a component of resilience in the face of what Canadian ecologist C. S. Holling describes as an evolutionary perspective in the search for safe-fail designs that encompasses the notion of a dynamic state of equilibrium at the scale of systems. The conventional worldview on the domestication of landscapes as a representation of appropriation by man is increasingly reversed according to a perspective where man is simply another layer situated upon a far vaster ecological system. Eco-
logical reserves allow, in the long run, for the definition of green and blue frames in which further urban development may be embedded. The redefinition of infrastructure—from roads to nature—is exactly what a new phase of landscape urbanism projects seek to accomplish. The following two projects by our design and research institute Research Urbanism and Architecture (RUA) demonstrate this approach of landscape urbanism.

**URBAN FORESTRY, SPACE FOR WATER, AND “SMART DENSIFICATION”: HOOG KORTRIJK, BELGIUM, 2012**

In Belgium, the city of Kortrijk (population 75,000) is the capital of a region known as the “Texas of Flanders,” a fragmented and diffused territory characterized by a simultaneity of differences, which is a gentle way to characterize its chaotic morphology where industry and housing are scattered everywhere over the territory (fig. 1). It is a region that is still growing, with its small and medium-size industries, colleges, urban services, and residential developments that consume the already little remaining landscape. The center of the city is situated on the Leie River, forty-two kilometers from Ghent and twenty-five kilometers from Lille, and is part of the Eurométropole (Lille-Kortrijk-Tournai), which houses 1.9 million inhabitants. Founded in the Middle Ages, the city, which originally accumulated its wealth from flax and wool, is now known as an entrepreneurial center with a diverse economy extending from energy and defense industries to services. The flexibility inherent in this diverse network of predominantly small and medium-size often linked enterprises is frequently thought to be a form of resilience as it allows fast adaptation to changing market conditions. Until today, Europe’s economic crisis has not hit Belgium as hard as it hit some of the continent’s southern nations, but the impact is nonetheless evident. Public authorities are, for example, no longer able to follow the increase in traffic with infrastructure extensions that could canalize the ever-growing flow of cars.

In 2012, a plan was developed for Leiedal, an intermunicipal organization in Southwest Flanders, to rethink Hoog Kortrijk, the car-based, postwar extension of Kortrijk located
south of the medieval historic core, and the E17 highway that was built along functionalist lines of separation. Dispersed urban functions had been relocated here, which gave way to an archipelago of large monofunctional elements. These elements are often comprised of grouped and previously separated schools, hospitals, et cetera. The overall area today needs densification, a new vitality, and, above all, spatial cohesion. Large-scale big-box

Fig. 1: The “Texas of Flanders.”

Kortrijk is a densely occupied, but diffuse urban territory in Southwest Flanders. The egg-shaped highway node generates the centrality of Hoog Kortrijk, the nondescript space where a number of large built structures of regional importance stand in splendid isolation.
buildings mark the territory, and visitors to its Xpo center, regional hospital, health facilities, business parks, retail stores, regional colleges, and university come by private car and do not linger in the area. With the exception of a few fragmented residential enclaves, the area does not house the usual range of daily urban activities (disregarding perhaps the gas station that also happens to include a newspaper shop). Further fragmentation of the dense, yet diffuse territory remains the greatest threat to the remaining open landscape, and remains one of the main obstacles to a more sustainable development. Excessive building and fragmentation has led to erosion problems. Exces-

![Fig. 2: Green-Blue Framework.](image)

The Hoog Kortrijk master plan anchors the area in a regional green structure while providing a robust green-blue framework that accommodates future development. This creates a new public realm that recontextualizes and gives a shared, common platform to the area’s existing fragmented services and isolated programs.
sive covering by asphalt, construction, and other impermeable groundcover has caused more flooding downstream and has increased erosion. The predicted consequences of climate change will worsen these effects. The suburban atmosphere of Hoog Kortrijk is continually changing due to regional interventions along the E17 highway. These include the recent construction of the aforementioned large hospital by Swiss architects Baum-schlager Eberle, which is slated for continual expansion, the 55,000 square meter Xpo center, colleges such as KATHO, the Kennedy and Evolis Business Parks, as well as the enlargement of the “knowledge axis” of the regional branch of the University of Leuven (KULAK). Amidst such monofunctional and monolithic elements, enclaves of middle-class housing organize their own introverted environments that are so typical of the “diffused city” of Flanders. The original countryside composition of farms and rolling hills remains only visible at the southern extents of Hoog Kortrijk. A finely meshed patchwork of farms is nestled with remarkable regularity in the topographic and hydrologic structure of the territory. This is in contrast to the rest of the landscape, which has been overwhelmed by the indiscriminate juxtaposition of urban, industrial, and rural fabrics. Our proposed project utilized infrastructure and landscape to reorient and requalify Hoog Kortrijk. A number of earthworks along the noisy E17 highway define a baseline for the project. They create a sound barrier for the adjacent environment while organizing the transition of the city’s service area to the open countryside, and, more importantly, host in their section profiles new infrastructure services such as a regional public transportation system. The bundling of infrastructure avoids increased land consumption and creates synergies. The old infrastructure axis of Hoog Kortrijk, which was named Kennedy Avenue in the nineteen-sixties, is a dysfunctional express road, since it is located much too close to the E17 highway exit to be able to take up its intended role as a flowing traffic distributor. The plan proposes that this road be relieved of cars and turned into a “soft” spine that is dedicated to public transportation, bicycles, and pedestrians. It is to be anchored within a series of earthworks that connect the major service destinations. It also functions as a collector for the mostly perpendicular and soft mobility lines between the urban and the countryside—each of which has a different character, connecting main urban civic elements, schools, parks, and industrial zones (fig. 2).
In addition, an ambitious public transportation system was envisioned to connect regional facilities to the wider territory. Rapid trams would link not only the city center of Kortrijk to Hoog Kortrijk, but also develop a transportation network for the fragmented territory of the highly urbanized southwest of Flanders. The network includes nodes that focus on new areas of centrality (such as the regional hospital) that will become public transportation hubs. The modal shift from car-oriented to public transportation would be enhanced by the development of a civic spine, which would in turn generate a significant and substantial, but completely new type of public space, and would help generate a new form of public life that is based on urbanism. Moreover, car parking areas would be (re)designed as park-like areas that accommodate a decreasing number of vehicles. They also would be an integral component of a comprehensive storm water management system and an extensive tree-planted green network. This will solve flooding problems downstream and temper erosion, while inducing environmental quality.

A green and blue framework in which the downsized road infrastructure would be embedded is defined and forms the canvas of the project. It is simultaneously intended as part of a larger territorial system that has the capacity to forcefully guide urban densification (through the sheer mass of trees), create a new identity for the area, build upon the existing water bodies and pockets of forest structures, increase biodiversity, and extend landscape mosaics. Within this unifying framework, a rich variety of existing and new forest typologies with a broad palette of tree types and plant species are proposed to create a wide eco-tone, allowing for diverse atmospheres and generating new ecologies and recreational settings (fig. 3). Space for water, in addition to vegetated swales and roadside channels, would include a large retention basin. The basin is part of the existing creek and lowland system that lies between the housing, the university, and the Evolis Business Park area. There is also a water square

Fig. 3: Vegetal Infrastructure.
A rich variety of existing and new forest typologies with a broad palette of tree types and plant species create a wide eco-tone, allowing for diverse atmospheres and generating new ecologies and recreational settings for Hoog Kortrijk.
on the urban platform near the hospital, as well as a series of shallow cascades and water gardens to animate the public space along the civic spine. “Smart” densification of the university, college, and student housing would occur along the new public infrastructure system and afforested areas (FIG. 4). Although urban development in the past was steered through the development of road infrastructure, further development would now be guided by the structure of the evolving landscape, which is defined by afforested areas, water, and other green structures such as wetlands, marshes, orchards, et cetera. This will define a robust frame in which further densification is possible without new road building. On the contrary, roads and parking lots may be downsized, thereby finally giving space to pedestrians, or may simply be completely converted into carless public spaces. Accordingly, the above-mentioned Kennedy Avenue would become a civic spine.

Fig. 4: “Smart” Densification.

“Smart” densification of the university, college, and student housing blocks generates synergies and allows for the integration of a public transportation hub. The densification would occur along the new public infrastructure network and afforested areas. In contrast to past practices, when road infrastructure steered urban development, future development will now be canalized by the landscape structure, which is defined by afforested areas, water, and tree-lined boulevards. The landscape structure defines a simultaneously open and robust frame in which densification is possible without new road building.
Cantho (population 1.2 million) in Vietnam faces completely different challenges than Hoog Kortrijk. A landscape urbanism approach, however, seems appropriate here also to engage with contemporary development conditions. Cantho is located in the heart of the enormous floodplain of the Mekong delta, at the confluence of the Hau (lower branch of the Mekong) and Cantho Rivers (Fig. 5). The French colonial enterprise in Indochina (1876–1954) radically transformed the Mekong delta's liquid landscape, which consisted of plains of reeds, marshes, and mangroves, into a highly productive, irrigated territory in which almost all land is domesticated. The Mekong delta, which consists of an incredible patchwork of nearly flat, irrigated lowlands, is known as Vietnam's "rice basket." Cantho is the delta's most important and rapidly urbanizing city (primarily due to urban-rural migration). As
is the case throughout the country, the predicted effects of climate change—sea level rise and its effects (flooding, salination, and erosion) to begin with—are daunting. Moreover, its ongoing hectic modernization process includes the development of road-based urbanism, which consumes extremely rich agricultural land with ever-increasing speed, scale, and intensity. The long-term value of such construction is questionable. The extreme climate (hot and humid) and the soil’s poor bearing capacity remain a real challenge for construction techniques. Still, the accessibility and connectivity afforded by the new roads, including the recently opened Hau River Bridge, have radically enhanced Cantho’s strategic location. Urbanization is consequently growing exponentially.

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Fig. 6: Organized Dispersal.
The development of Cantho envisions an alternative linearity. Instead of a continuous built-up strip along the river (as is the case in so many generic waterfront cities), it creates differentiated urban and rural centralities. The highway trajectory parallel to the Hau River is retraced to safeguard the dense mesh of orchards in Phong Dien. Similarly, the upstream landscape along the river is protected as a green complement for the new urban center of Omon, which is set back from the river and linked directly to the new highway. Instead of developing a homogeneous giant platform, the future Cantho assembles a set of centers, each with its own identity, and each orchestrating a different interplay with the Hau River, highway, civic spine, and linear park.
Cantho’s expanding hybrid territories, though still primarily rural, face spatial limitations due to the intermingling of built-up environments and agricultural land, which increases conflicting claims on the territory. This is evident in the conflicts between urban and rural functions, as well as the ecological complexities caused by the presence of different water management methods, including natural and controlled floodplains, and wastewater treatment infrastructure. One of the main environmental threats affecting Cantho is the exponentially increasing loss of absorptive low lands, which are inadvertently filled with up to two meters of soil to provide protection from flooding and to support rather low-quality urbanization. Moreover, the absorptive capacity of the land is diminished as the amount of paved areas increase. The side effects of this include faster rainfall run-off and a lowering of the natural groundwater table. Problems relating to water quantity are mainly related to hydrological extremes that a daily tidal influence accentuates even further: high flow discharges and flood risks along rivers and urban drainage systems; and low flow discharges along rivers. The balance between hydraulic, ecological, agricultural, and urban (housing, industrial, and recreational) uses of space is ultimately far from optimal. In addition, as Cantho’s urban core is continuously expanding, its drainage and sewage systems, which are often un-hygienically mixed, are becoming overstressed, and their integrity is jeopardized. This is only one of the sources of conflict that are increasingly dividing the city from its rural hinterland, even though Cantho’s identity until now remains very much anchored in its profound embeddedness in and intense contact with the surrounding countryside.

The encroachment on water bodies alters ecologies and affects the severity and frequency of flooding, not to mention aggravating environmental degradation and pollution. In a revision of the city’s master plan up to 2030, the RUA proposed soft engineering approaches in order to orient the development of Cantho towards resilience and adaptability, while accommodating its growth to a predicted two million inhabitants in a form of dispersed urbanization (FIG. 6). The plan, made between

**Fig. 7:** Cantho’s Natural Forests.

The existing green structure is directly related to topography and to hydraulic management. The lowlands accordingly consist of paddy fields; and the intermediate and very fertile level of deposited sediments primarily consists of orchards. The Phong Dien area to the city’s southwest covers a tight network of Cantho River tributaries with banks of intermediate height that assemble one of the most extraordinary collections of orchards in the world.
2010 and 2012 by the RUA in cooperation with Vietnam’s Southern Institute of Urban and Rural Planning (SIUP), was approved by the Vietnamese Prime Minister in August 2013. It sought to give a simultaneously stable and flexible framework to the city’s hectic development, which is driven by the spontaneity of bottom-up market forces, and is also complemented by considerable public investments in infrastructures. A structural interweaving of hydrology, soil conditions, and a new urban morphology is combined with the creation of a manipulated topography that rearticulates the existing landscape logic of the territory. In other words, the design interprets the nature and characteristics of the landscape, and attempts to work with them as much as possible. The delta’s agricultural territory is basically generated through the inscription of canal systems—precolonial and French—in the natural water structures. The master plan revision constructs Cantho’s future urban structure on similar lines: interweaving a green-blue structure and an urban structure. The green network is composed of the orchards in the area of Phong Dien, which is located to the south of Cantho, and is reputed for its floating market (fig. 7). The green network also includes the proposed regional-scale Hau River high-tech agricultural park, which is part of the master plan’s aim at realizing technological innovation in agriculture and aquaculture. Both large-scale areas are located along the higher land of the riverbanks. The high-tech agricultural park is located along the Hau River; the Phong Dien area is located at the confluence of the Hau and Cantho rivers and the latter’s multitude of winding tributaries. The Cantho Linear Park, which extends over fifty kilometers in length, hosts recreational functions, and is connected to the extensive tree-planting program of the “civic spine.” These spaces, together with the urban areas, are located on the highest—and thus safest—level in terms of flooding (fig. 8).

The differentiation in topographical levels and soil conditions will allow for the use of a wide variety of tree specimens that may roughly be seen as forming a trilogy. The first component of this trilogy would be the paddy fields at the lowest levels, which are seasonally flooded with water and alternate with existing patches of more natural marshes. The second component would consist mostly of linear elements that are located on natural or artificial embankments situated between the riverbanks, which in themselves are the result of sedimentation. The third component of the trilogy would be located at the highest level, and would function as the civic spine and as “urban platforms,” that is, the safe area for human habitation. At the highest level, ornamental greenery would also fine-tune the microclimate while contributing to the stabilization of artificial land. These last and mostly linear plantations would reactivate and amplify the ancient Asian tradition of tree planting along roads. This approach of variation that is dependent upon height is a subtle one. Height differences between each of the components are limited to approximately one meter or so.

The linear elements located in between these different levels and the paddy fields are the two major elements of the green structure. These also will safeguard the agricultural identity of the city, and as such dissolve recent antagonisms between city and countryside. Instead of allowing the expanding city to distort and fragment the countryside, the green framework guarantees a coherence of the countryside. A variety of urban centers
A generous profile, as is the case throughout Vietnam for express roads, marks the width of the civic spine, which is composed of a complex assemblage and applies cut-and-fill principles. The profile is systematically planted with trees and incorporates storm water management, parking, and a hierarchy of different types of circulation systems, including public transportation, cars, and motorbikes. Additional traffic lanes may be added as new capacity is needed over time.

In the meantime, the planted profile will mature into a majestic place. The profile, while keeping some elements strictly fixed throughout all segments of its trajectory, simultaneously adapts itself to the different contexts it passes through, whether the existing city, new urban or rural centers, agricultural land in-between, or parks. It thereby creates complementary sets of atmospheres and microclimates that are generated by the extensive tree planting along the spine. This allows for the development of different types of planned and unplanned as well as formal and informal public uses, and allows this profile to obtain a civic character over time.
of relatively limited size would be embedded in the countryside. Each of these elements of this polycentric city-in-the-making would be in close contact with the countryside and its green constituent elements. The blue network is designed to address both water quantity (that is, flooding, storm water retention, drainage, and irrigation) and water quality, and would be realized by a rigorous enforcement of the cut and fill balance principle during the process of urbanization (FIG. 9). Whenever land is artificially filled, a same amount of land is cut to rebalance the water storage capacity. This green-blue structure would define the counter-figure for “urban platforms,” which would be located on raised artificial land. It also will become the backbone of the city along which its different centers would be anchored, and it will inscribe itself to a large extent into the natural water structure and soil conditions. In other words, the structuring of the landscape, which in itself is not much more than an articulation and exploitation of the already existing natural structure, would be the foundation for a new regional and urban form. With this, the ordering of the polycentric city-in-the-making
would get a completely new character and nature. It is no longer the road infrastructure that defines the structure and the image of the city, as historically has been the case in most other cities. The structure of the future city would be its blue-green net, a flexible, but straightforward frame that is dynamic and evolving, and that is informed by existing landscape conditions, while simultaneously accommodating and shaping urban tissues that rationalize and modernize the Mekong delta’s building traditions. It explicitly addresses the predicted consequences of climate change and increased flooding (FIG. 10). The expanding city and its peripheral territory are planned as a juxtaposition of characters and scale resulting from an orchestration of the infrastructural net, its natural green and blue systems, its topographical differences, its soil conditions, and also the programs allocated to these different levels and soils.7

DESIGNING RESILIENT CITIES: TOPOGRAPHIES OF CHANGE

In the Belgian project, the assignment was essentially to reedit the existing urban environment. As is the case in most Western contexts, the process of development is one of transformation, optimization, and correction, rather than of accommodating massive demographic, social, and economic growth in new urban areas. In this reediting, attempts were made to restate the balance between city and nature, between consumptive and productive space, between impermeable and porous surfaces, and between the urban and the rural. This rebalancing is realized by strategically shifting the

Fig. 9: Water Network.
The projected water network addresses both water quantity (floodling, storm water retention, drainage, and irrigation) and water quality (sewage and purification) issues. It marries them, where appropriate, to a more contemplative and recreational use of water. Elements in the water system consist of storm water channels and eco-swales that are coupled with the road network; “elastic parks,” which work as sponges and thus can accommodate seasonal differences of water volume in the river; a decentralized wastewater purification network; a series of water retention basins consisting of lakes and ponds that are connected to a network of natural rivers; and man-made canals.
design focus from urban structures such as Kortrijk’s road systems to the landscape as a structuring framework to begin with, and, after that, as a receptor of activities. In short, the European project attempts to transform the territory primarily through the conscious and structural (re)construction of nature, and in this way (re)acquires the capacity to frame and structure the urban. Nature consequently regains recognition as a basic infrastructure of the urban. In opposition to approaches from the nineteenth and twentieth centuries, however, nature is not controlled. The project rather works with nature and its forces, which in turn control the urban, rather than the opposite. The rearticulation and reconstruction of nature delivers the frame for any further development. It remains open to a variety of developments, or to none at all, considering that uncertainty is a main characteristic of the times. As the frame is natural, it also evolves over time according to its own rhythm that is distinct when compared to that of the built structures of the city.

Fig. 10: Choreographed Flooding.
Fertile higher land along the Hau River, which is a result of sedimentation, is strategically embedded into the green framework as the Hau River Park. This new type of park is a high-tech agricultural park that aims at realizing technological innovation in agriculture and aquaculture, and is safeguarded from urbanization by the fact that it will become a major contributor to the area’s economy. When flooding occurs, settlements and orchards are “safe” since they are located on higher land, and low paddy land temporarily accommodates the floodwater. The Hau River Park is a cornerstone of Cantho’s green network that guides the choreography of flooding.
In contexts like Vietnam, where urbanization, industrialization, and migration are galloping ahead, the reconstruction of nature needs to simultaneously take place along with massive ongoing urban development. The strategies proposed require that the cities and their territories address topographies of change through a spatial lens, but ones in which economy and ecology, both urban and natural, are diametrically opposed. Robust and substantial green and blue systems structure the territory and create frames for the adaptation of the landscape. Resilience is built in by designing an overlap of natural and built ecologies. The megacity in the making is tamed before it reaches uncontrollable dimensions and eats the countryside away. On the contrary, the expanding city is broken up, scaled, and distributed over the territory by the force of the blue-green frame.

Both RUA projects are attempts that aim at further articulating the definition of landscape urbanism, a more or less academic discipline that emerged in the nineteen-nineties, at a time when it became clear that dealing with the challenges of contemporary cities, be it in brownfield conditions in the West or hectic urbanization scenarios in the South, require a cross-scalar approach that stretches from the scale of the territory to that of the road, and that simultaneously combines the abstract and conceptual and the tangible and concrete in order to comprehend thinking in the form of plans as well as in terms of process. It is based on merging landscape architecture and urbanism. Landscape architecture provides an age-old capacity to articulate and scale the territory and the concrete details of vegetation and its inherent process-oriented approaches. Urbanism allows for structural approaches, and is characterized by a quest for rationality. Their merging into landscape urbanism indeed is a logical theoretical proposition.

The projects of the RUA validate the underlying hypotheses of landscape urbanism through actual projects. These are commissioned by concrete agencies searching for more appropriate forms of planning that are able to deal with the challenges of our time. These RUA projects, which were developed in cooperation with the commissioners of Leiedal in Belgium and SIUP on behalf of the Cantho People’s Committee, inscribe themselves in the landscape and in a geographic-morphological logic that is detected through a careful analysis and sensitive observation of collaborating multidisciplinary teams. Such inherent logic of the landscape allows for a mastering of the large scale with relative simple means: applying the tool of the section and profile. Such minimal interventions result in maximum effects. In that sense they are topographical projects, and may be referred to as “Braille urbanism.”
NOTES:

The Leiedel project was developed in a Landscape Urbanism workshop that was commissioned by Stadsbestuur Kortrijk in January 2012 for Hoog Kortrijk. It was run by B. De Meulder and K. Shannon with V. Cox, B. de Carli, S. Hoornaert, G. Lanno, I. Llach, K. Lokman, M. Luegening, M. Motti, T. Ono, J. Provoost, P. Russo, C. Van der Zwet, and E. Vanmarke. Further development was carried out by B. De Meulder, K. Shannon, M. Motti, and I. Llach with S. Hoornaert and a team from Leiedal.


2 See, Kelly Shannon and Marcel Smets, Landscape of Contemporary Infrastructure (Rotterdam, 2010).
7 Ibid, pp. 154–55.
How should we consider the design of our cities in the years to come? Are current planning tools and techniques capable of dealing with the challenges facing the built environment? What can we learn from the diversity of responses from across the globe to the conundrum of urbanization? And in what specific ways does planning in Asia require a different approach than in other parts of the world?

These were only some of the questions posed during the “Emerging Models of Planning Practices” seminar held in Singapore in 2012, which brought together a diverse group of participants from across the region. The intention of the discussion was to reflect on the current status of planning, with a specific emphasis on the lessons to be learned from Singapore.

The particular condition of Singapore—its climate, its economic, cultural, and political structure—has led to the articulation of a form of planning development that in many ways is unique in terms of its modes of practice. Here, the role of the Urban Redevelopment Authority (URA) has been instrumental in defining the relationship of this city-state to land development at multiple levels. The structure and authority of this government agency has far-reaching consequences with regard to issues such as responsibility, control, ownership, scalar interrelationships between planning and urban design, and the definition of public-private partnerships. Unlike many such organizations, the URA is not simply a policy making body; rather, it directly helps shape the form of the city—controls its skyline—through its design prototypes for specific sites. Compared to other contexts, the process for such things as permits is potentially more clear-cut.

The example of Singapore is interesting because it raises the question of the degree to which public agencies under the direction of the state should exercise control over the form of the city—a question that has particular relevance at a time when we are witnessing many planning agencies relinquishing their responsibilities with regard to urban development. In such a climate, Singapore provides a valuable case study and a stimulus to a vital discussion of the framework and limits of planning overall.

In many respects it is important to remind ourselves that the very tools of modernist planning have been legitimately questioned. The emphasis on the singular role of the master plan, as a predetermined vision to be executed in phases, clearly does not respond to the diversity of needs and geographic conditions that exist in different parts of the world. Yet it is not totally clear what the alternative strategies are.
This collection of essays is intended to address some of the ways in which we might con-ceive a new set of planning practices that are better able to address the needs of both citizens and the environment. Correspondingly, the dialogue between sustainable and social development forms the core of much of the writing. At the same time, in addition to these topics, it is critical to consider a multiplicity of other issues, from tangible and intangible heritage, to the enormous increase in population, to variations in climate, to the availability of resources, and to infrastructure—all of them necessary preconditions for a new, deliberate approach to planning.

Such an approach requires us to be cognizant of the particularities of a specific geography and sensitive towards the needs of the citizens. The aim should always be for planning to help improve the quality of life. But this type of intentional approach also requires new forms of knowledge and creativity that are able to do justice to the consideration of the many factors that help shape a particular situation.

We are at the beginning of a much-needed conversation about how we might bring to-gether circumstance, intention, and proposition in the making of new urban conditions. The collection of essays in this book use examples from a variety of locations and practices to move towards this agenda. As much as in the essays themselves, however, it is in the gaps between the texts that we must find new clues on how to rethink planning in ways that make it more responsive to the need and the desire for a more democratic, productive, and pleasurable setting for human action.