# Prácticas espaciales en un mundo urbano. Revalorización del territorio y la ecología como un nuevo terreno para la arquitectura y el diseño urbano

Spatial practices in an urban world. Reassessing territory and ecology as a new ground for architecture and urban design

# ADRIÀ CARBONELL

#### Resumen

En este trabajo plantea que para comprender los procesos contemporáneos de urbanización neoliberal y revetir su lucrativa destrucción, es necesario abordar la dimensión planetaria de los fenómenos y reconvertir el mar isotrópico de la urbanización en territorios y ecologías sostenibles.

## Palabras clave

Territorio, ecología, urbanización planetaria, urbanismo, desarrollo desigual.

#### Abstract

This paper argues that in order to understand contemporary processes of neoliberal urbanisation and to revert its lucrative destruction, the planetary dimension of the phenomena needs to be tackled, and the isotropic sea of urbanisation needs to be reconfigured into sustainable territories and ecologies.

### Keywords

Territory, ecology, planetary urbanisation, urbanism, uneven development.

Adrià Carbonell is an architect based in Stockholm. He graduated in Barcelona in 2005 (URL), and subsequently received a Postgraduate degree in Architecture and Writing (UPC) and a Postgraduate Master in Architecture and Urban Culture (UPC). Trained at the studios of Josep Llinàs and Manuel de Solà-Morales, he established his own office in 2008. Since then, he has combined the practice of architecture and urban design with research and teaching. He is currently Guest Professor at KU Leuven, and in the past years has hold teaching positions at Umeå School of Architecture (UMA) and at the American University of Sharjah (AUS). His writings have been published in books and journals like Monu-magazine, San Rocco, Cartha or Revista Diagonal among others. He has been awarded five times with the AJAC prize by the Association of Young Architects of Catalonia in the category of theory and criticism.

adria.carbonell@kuleuven.be

# Introduction

Imagine for a moment that society has been fully urbanised, that the traces of metropolitan cities are but little islands in a sea of urbanisation that has flooded the entire planet. The urban centres are completely saturated, stand still in a rhetorical limbo, desperately attempting to reclaim their identity in the face of a society that has changed, that looks at them as a cultural heritage to preserve and remember, no longer adequate to the needs of contemporary life. The city fabric expands its limits across expansive topographies. The vestiges of a previous natural state, prior to the action of humans, are preserved like relics of a past on its way to extinction. Imagine that we all are immersed in an unstoppable process of urbanisation that has generated massive urban agglomerations, a dispersal and uncontrolled expansion of urban settlements that has led to the emergence of hybrid geographies. The city cannot be described as an artefact in the territory, because it is the territory itself; there is a total domination of the urban over the rural, of the city over the territory. Let's fictionalise according to Lefebvre's narration in *La revolution urbaine*: "The urban fabric grows, extends its borders, corrodes the residue of agrarian life. This expression, 'urban fabric', does not narrowly define the built world of cities but all manifestations of the dominance of the city over the country. In this sense, a vacation home, a highway, a supermarket in the countryside are all part of the urban fabric. Of varying density, thickness and activity, the only regions untouched by it are those that are stagnant or dying, those that are given over to 'nature'" (Lefebvre 2003 [1970], 4). In short, there is a total subordination of the agrarian and industrial world to the urban world, a true urban revolution.

If now we turn our eyes toward the reality that surrounds us, we will soon realise that the hypothesis put forward by Lefebvre more than 40 years ago was premonitory, and that the scenario depicted was neither a mere rhetorical exercise nor an exaggeration, but a palpable and contrastable phenomenon. In 1996, the UN-Habitat Global Report on Human Settlements already pointed out that the planet was entering an urban era, where most of the global population would live in cities for the first time in history. According to the United Nations, in 2014, 54% of the global population was living in urban areas. In 1950 this percentage was only 30%, and the prognosis for 2050 is that urban population in the world will rise to 66%. Another recent study conducted by the London School of Economics estimates that human activity has had an impact on over 83% of the land of the planet, where the only areas that remain in an unaltered 'natural' state – i.e. with no presence of roads or other infrastructures, buildings, agricultural fields or any other human activity are vast swathes of desert, tundra, rainforest and icecaps. This same study also revealed that 75% of the CO2 emissions released into the atmosphere on a global scale are produced in cities, or that 33% of the population living in urban areas lives in slums (Burdett and Sudjic 2011).

All of the above questions reinforce the idea of the urban revolution as anticipated by Lefebvre, i.e. "the transformation that affects contemporary society, ranging from the period when questions of growth and industrialisation predominate (models, plans, programs) to the period when the urban problematic becomes predominant, when the search for solutions and modalities unique to urban society are foremost" (Lefebvre 2003, 5).

## Cities, Regions, Globe

Over the last few decades, the interest in understanding territorial forms as operative grounds for urban design and planning, has been overtaken by irrepressible urban growth: metropolitan cities have turned into fully urbanised regions, where

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1 Hall argued that megalopolis as a geographical concept had a correspondence in reality only in functional terms, not physical. Beyond the critique to Megalopolis for the vagueness of its definition, there were alternative uses of the term with notorious difference in meaning and usage. If for Gottmann it was the materialisation of a social achievement, it was used with clear negative and even pejorative connotations by Patrick Geddes at the turn of the XXth century – first in 1904, and subsequently in other texts – and on different occasions by his disciple Lewis Mumford – in 1938 and in 1961.

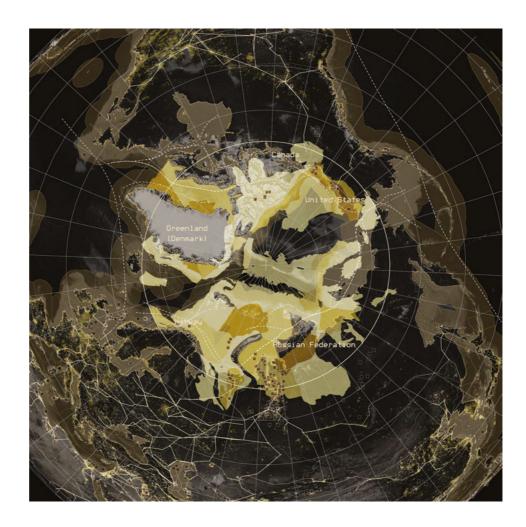
For a detailed account of the use of the term megalopolis in urban literature see: Elisabeth Baigent, 2004. Patrick Geddes, Lewis Mumford and Jean Gottmann: divisions over 'megalopolis', *Progress in Human Geography*, 28, 687-700.

2 For a thorough and extensive review of the exhibition "City of 7 Billion. A Constructed World" at Yale School of Architecture see: Roi Salgueiro Barrio, What World: Reframing the World as One City at urbanNext.net, Actar Publishers. Original post date: December, 2, 2015. https://urbannext.net/what-world/ the boundaries between city and countryside have blurred, resulting in a phenomena of urbanisation at a planetary scale that is being consolidated at the beginning of this new century. So, if the 19th century brought the emergence of the metropolis, and the 20th century saw the explosion of territories on a regional scale, the 21st century is one of planetary urbanisation (Brenner 2013). Thus, traditional urban patterns and morphologies are no longer adequate for understanding increasingly complex territorial configurations. The contemporary city is made up of multiple fragments and combines typical urban conditions together with suburban developments, new logistics complexes and old industrial structures, as well as all kinds of infrastructures and networks. Neil Brenner has pointed out that "processes of concentration and dispersion, as well as new patterns of core-periphery polarisation, are superimposed upon one another across places, territories and scales, creating an almost kaleidoscopic churning of socio-spatial arrangements during successive cycles of capitalist development" (2014, 17). As Alvaro Domingues puts it, "in this context, cities or metropolises are only uncertain geographies, without precise or stable territorial boundaries, and they are not any sort of containers of social organisations that are confined and organised in an exclusive, stable way in them" (2009, 36). Hence, the interdependencies of highly unbalanced and unevenly urbanised environments are being intensified as they scale up, in a sort of web that links material conditions and socio-spatial arrangements with flow dynamics and network systems. Strongly influenced by Lefebvre, Brenner builds on the notion of implosion-explosion (Lefebvre 2003, 15) to describe "the production and continual transformation of an industrialized urban fabric in which centers of agglomeration and their operational landscapes are woven together in mutually transformative ways while being co-articulated into a worldwide capitalist system" (Brenner 2014, 17-18).

Nevertheless, the concern about large urbanisation processes is nothing new; it is part of a phenomenon that has intensified over the last decades. Jean Gottmann used the term "megalopolis" as early as 1961 to define the cluster of metropolitan areas on the northeastern seaboard of the United States. Since the publication of his book, city-regions and huge urban agglomerations have multiplied and the prediction is that by 2030 there will be 41 megacities in the world with more than 10 million inhabitants each. But what lies behind all these figures and statements? Do categories like megacity or megalopolis help us to better understand urban realities? Do they contribute to clarifying or discerning their configurations, internal structures or morphologies? Do they provide a better understanding of their processes, social systems and spatial protocols? A decade after the publication of Gottmann's Megalopolis Peter Hall was already questioning its instrumentality and effectiveness, whether "megalopolis is merely a convenient fiction, a tool for analysis, or has it deeper function or physical reality?" (Hall 1973, 46).1 Furthermore, does the description of "a city of 7 billion", as presented by Hsiang and Mendis at a recent exhibition at the Yale School of Architecture, bring any light to the discussion of the so-called urban age, or does it, on the contrary, add more vagueness and confusion to an already battered notion of the city.2

The undeniable global urbanisation processes have propelled the use of a rich repertoire of urban terminology, particularly within the disciplines of geography and urban studies at large, in an attempt to encapsulate in self-explanatory terms the otherwise boundless urban condition. From post-metropolis, exopolis and megacity to conurbation, city-region and urban-age – i.e., a world of cities, the new lexicon reflects the rampant urbanisation processes and the vast transformations that have affected global scenarios, urban settlements and their 'operational landscapes', but in general terms, it has not given a precise response to the changes in internal configurations, spatial and morphological arrangements.

[Fig. 1] Grga Basic, Urban Theory Lab-GSD. "The strategic / speculative space of the Arctic: oil fields, projected oil reserves, pipelines and shipping routes."



The hypothesis of the consolidation of an urban society, having overcome an industrial era, forcefully requires a reformulation of what is considered urban from a contemporary perspective. Lefebvre provided a radical shift in the conception of the urban phenomena, the move from the study of agglomerations to that of social relations, in particular those associated with the urban model. As the urban geographer David Harvey revealingly wrote, "the 'thing' we call a 'city' is the outcome of a 'process' we call 'urbanization'. But in examining the relationships between processes and things, there is a prior epistemological and ontological problem of whether we prioritize the process or the thing and whether or not it is even possible to separate the process from the things embodied in it" (2014, 61).

All of these theses share the aim of moving from the study of cities in their formal-objectual condition to the urban condition as a process and field of relations. Hence, "if the urban can no longer be understood as a particular kind of place – that is, as a discrete, distinctive and relatively bounded type of settlement in which specific kinds of relations obtain – then what could possibly justify the existence of an intellectual field devoted to its investigation?" (Brenner 2014, 186). What Brenner proposes is an "urban theory without an outside", a new conceptual and methodological framework that would not establish a constitutive differentiation between the urban and the non-urban, and would therefore address the global dimension of urbanisation. A theory that supersedes the "established understandings of the urban as a bounded, nodal and relatively self-enclosed sociospatial condition in favor of more territorialy differentiated, morphologically variable, multiscalar and processual conceptualizations" (Brenner 2014, 15).

Thus, if urban territories have extended over a much larger geography than that of cities, it will be necessary to look at the reciprocal relations established between the different scales of spatial practices and design, between architecture, urbanism and landscape. The questioning of the highly bureaucratised processes of urban

#### **ADRIÀ CARBONELL**

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Spatial practices in an
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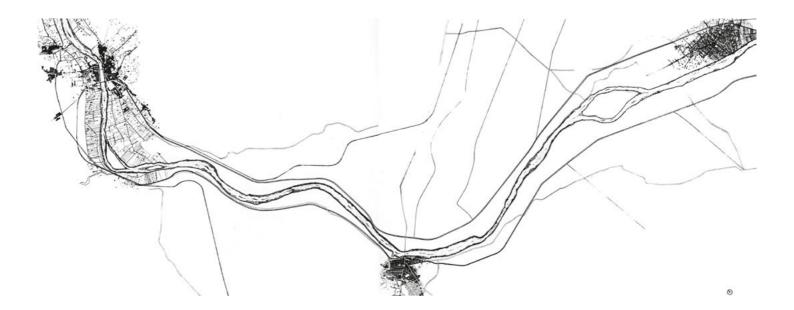
and regional planning, as well as the relationship between architecture and land-scape, require a profound disciplinary reorganisation, one that integrates political, social, cultural and environmental concerns with spatial, material and formal configurations. Complementing the theoretical, geo-economic and macrostructural analysis provided by urban geography and political economy, what follows is an attempt to reposition the discourse on architecture and urbanism within a disciplinary framework and to define an operational ground. The reassessment of the notions of territory and ecology, and the investigation of their confluence and interplay, aims to move beyond the analytical and descriptive approach into a theoretically grounded projective practice, striving to make the discipline – and the practice – of urbanism operational again, and to eventually contribute to constructing an architectural agenda capable of dealing with the complexity of the contemporary situation.

## **Territory**

In recent years the notion of territory has gained new impetus in social and political sciences, as well as in spatial disciplines. Most notably, Stuart Elden's *The Birth of Territory* situated the concept of territory in a historical perspective (2013), delimiting an original theoretical construction different from other valuable readings like that of Saskia Sassen (2006). Beyond the erudition deployed throughout his historical account of territory, Elden's work gives specificity to the term and provides a conceptual clarification. In this regard, the distinction between territory, land and terrain (2010) – even though is framed by a geopolitical reading – posits relevant questions about the political, juridical and technical parameters involved in the formation and articulation of the ground on which architecture and urbanism perform.

Some decades back, a group of architects sharing a generational concern about issues of urban and regional planning (namely Alison and Peter Smithson, Aldo Rossi, Vittorio Gregotti, Manuel de Solà-Morales and Luigi Snozzi, among others) initiated a disciplinary debate in similar terms (the technical and the legal, the measuring of the land and the control over its transformation) and posited territory as a key notion in order to link architectural and geographical discourses. Although diverging in their interpretations of the term, they commonly understood territory as an architectural construct. In 1966, Vittorio Gregotti published II territorio dell'architettura, an adapted and extended version of a previous article appearing in the periodical Edilizia Moderna in 1965, where he aimed to "investigate the possibilities of a formal anthropological and geographic analysis of landscape".3 Based on the idea that an increasing colonization of nature by man was taking place – a process driven by principles of productivity - Gregotti wanted to redefine the relationship between architecture and the territory, and in a broader sense, geography, landscape and the city, by establishing new formal methodologies and approaches that would be adaptable to different scales. Parallel to Gregotti's investigation, the LUB (Laboratory of Urbanism of Barcelona), founded by Manuel de Solà-Morales in 1968, was also investigating new forms of architecture and urbanism inextricably linked to the structure of the territory, while conducting innovative cartographic work all across the region of Catalonia - an analysis that was fully charged with projective design intentions. As Solà-Morales wrote, "there is an entire social history written in the layout of routes, in the points of crossing and interchange, in the plowing of farmland, in the construction of canals and the irrigation of cultivated land and in the shape of property ownership. It is written in the placement of industries, in the growth of cities of their surroundings, and in the often violent and contradictory impacts of great infrastructures. Each territory is a unique mix of all these components and only through a description of these components can one begin to synthesize an alternative" (1989, 16).

<sup>3</sup> The quotes are taken from "The Shape of the Territory" as published in OASE #80, an English translation from the French "La forme du territoire", published in L'architecture d'auhoud'hui in 1981.



[Fig. 2] Baix Ebre-Monstià, Laboratori d'Urbanisme de Barcelona (LUB), J. Arasa, J. Bestratén, C. Castells, I. Castiñeira, M. Eletxigerra, A. Gaya, L. Millán, E. Sesé.

Description of the territory around the Ebre River near its mouth. Emphasis is placed on the river - a determining element in the construction of the zone - and on the urban centres of Tortosa, Amposta and La Cava.

Both Gregotti's and Solà-Morales' approaches were founded on the idea that landscape, at one time referred to as 'natural', is a cultural construction, therefore designed. They believed that the operative domain of architecture is not only that of building design; it is a spatial practice interwoven with the processes that articulate a multilayered notion of territory.<sup>4</sup>

What interests us here is not the idea of territory associated with its regional scale nor as a category distinct from the city, formerly associated with the rural or the non-urban, but as a dynamic geographical formation of variegated densities, patterns, thicknesses, interweaving systems and things, flows and matter, in multiple juxtaposed and superimposed configurations. Thus, territory, as opposed to the field of extended urbanisation, arises as a new ground for architecture and urbanism. As Paola Viganò put it, "territory is not the sole support for different political and institutional forms: it is an artefact, a principle of organisation with social origins and characters. It is a collection of particular places and positions; it is a resource, where goods, services, and values are produced. [...] It is a space of appropriation, an individual and collective construct and imaginary" (2014, 10).

## **Ecology**

The understanding of the landscape as culturally and socially mediated establishes a clear connection with the idea of the production of nature that Neil Smith put forward in Uneven Development (1984). According to Smith, "the concept of nature is a social product" (2010 [1984], 3rd ed, 28), and he goes even further when asserting that "we must now consider there to be a social priority of nature; nature is nothing if it is not social" (47). Drawing on Marx's idea of nature and the assumption that "the nature that preceded human history...today no longer exists anywhere" (77), along with Lefevbre's production of space, Smith goes beyond the dual antagonism between human beings and nature and describes the much more complex process of the production of nature: "the idea of the production of nature implies a historical future that is still to be determined by political events and forces, not technical necessity" (48). The dialectic between natural-countryside / artificial-city comes into question, reinforcing not only the blurring of the edges of the urban, but the belonging to a single process of economic development on a global scale. If the territory is constructed, and nature is produced, ecology appears at the intersection as the interface that mediates between them. This notion of ecology could easily relate to the interpretation of territory that Gregotti and Solà-Morales previously

4 Elden refers to Valérie November to make explicit the multiple dimensions that territory may have: "at the same time juridical, political, economic, social and cultural, and even affective" (November, 2002: 17).

#### **ADRIÀ CARBONELL**

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en un mundo urbano.
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territorio y la ecología
como un nuevo terreno
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diseño urbano
Spatial practices in an
urban world. Reassessing
territory and ecology
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claimed, but adding a new dimension on top of it, that of urban metabolism and the consideration of non-humans as elements – or agents – of design in a holistic project.

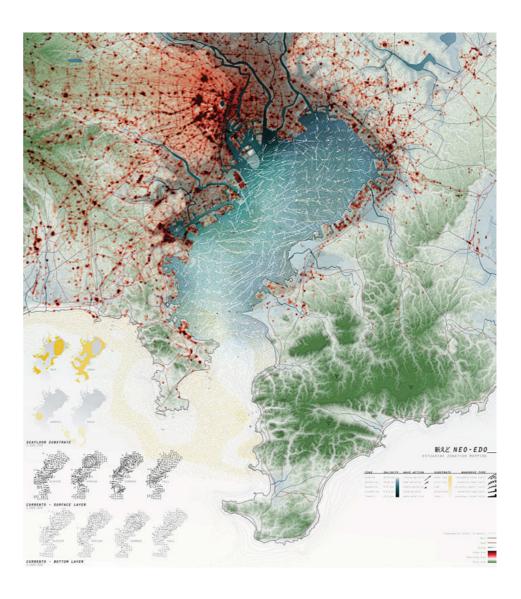
Over the past decades, the notion of ecology has taken a prominent position, not only in the environmental realm, but also in social and cultural studies. Felix Guattari's *The Three Ecologies*, published in 1989, exerted a strong influence across several intellectual disciplines. Also, the fields of architecture and urbanism have been increasingly open to ideas and methodologies resulting from ecology, which have incorporated into a sort of expanded field that triggered the emergence of new spatial practices based on interdisciplinary interaction. As Guattari put it, "now more than ever, nature cannot be separated from culture; in order to comprehend the interactions between ecosystems, the mecanosphere and the social and individual Universes of reference, we must learn to think 'transversally'" (1989, 43).

Ecological thinking has proven that all kinds of life in the planet are enmeshed in a net of complex and dynamic relations, questioning the idea of nature as a lineal system, where notions of process, temporality and interaction play a fundamental role (Corner 1997). As James Corner wrote, "ecology is never ideologically (or imaginatively) neutral, despite claims of its objectivity. It is not without values, images or effects. Instead, ecology is a social construction, one that can initiate, inform, and lend legitimacy to particular viewpoints (from "green politics" to nationalism to feminism, for example)" (2014 [1997], 43). Responding to the problematic nature/culture divide, if we understand them both as social constructs, Corner bases his approach to ecology on the distinction between two 'natures': one referring to 'nature' as a cultural construction – and therefore social; and a second 'Nature' referring to the "amorphous and unmediated flux that is the 'actual' cosmos", and he argues for a radical ecology that focuses not on 'Nature' but on culture.<sup>5</sup>

These principles have been incorporated into new design methodologies that have investigated the possibility of an urbanism based on uncertainty, as opposed to the former obsession with order and omnipotence. So, if there needs to be a "new urbanism", "it will no longer be concerned with the arrangement of more or less permanent objects but with the irrigation of territories with potential; it will no longer aim for stable configurations but for the creation of enabling fields that accommodate processes that refuse to be crystalized into definitive form" (Koolhaas 1995, 969). In the same line, Corner points out that "a true ecological landscape architecture might be less about the construction of finished and completed works, and more about the design of 'processes', 'strategies', 'agencies', and scaffoldings —catalytic frameworks that might enable a diversity of relationships to create, emerge, network, interconnect and differentiate", and sentences that "the aim for the design of these strategic grounds would not be to celebrate differentiation and pluralism in a representational way, but rather to construct enabling relationships between the freedoms of life (in terms of unpredictability, contingency, and change) in the presence of formal coherency and structural/material precision" (2014[1997], 59).

Posterior disciplinary trends like Landscape Urbanism or Ecological Urbanism, have taken on major relevance when it comes to describing, analysing, imagining and designing new forms of urbanity, with a strong emphasis on some sort of fusion between the different fields of urbanism and landscape — the former dealing with the 'urban' and the latter with the 'natural'. Nevertheless, even though these new categories and blending of disciplines have created high expectations, both practical and intellectual, they have not always become operative tools for design. If, on the one hand, they have expanded the conceptual and methodological framework

<sup>5</sup> As noted by Corner, "of the various radical ecologies, the one that appears to be of particular interest for landscape architecture is social ecology" (2014, 52).



[Fig. 3] Andrea Hansen, Tokyo Bay Marine Fields, 2009.

of the urban question, they have not succeeded in achieving the promised transformative power, in many cases being reduced to mere cosmetic operations or to spatial-temporal protocols with serious problems of implementation. As Susannah Hagan has argued, the "emphasis on indeterminacy and 'process' have a romantic allure, but are extremely difficult to realise on urban scale and within an economic system of development-for-profit" (2015).

## A New Ground

Beyond the emergence of new territories both for reflection and intervention, the urban society anticipated by Lefebvre has also provoked several crises: environmental, economic, urban, of food production and distribution, of dramatic social inequality, etc. This situation has inevitably led to a questioning of the very notion of progress associated with the idea of permanent growth: an economic growth intimately related to urban growth. Because of the impossibility of assimilating massive concentrations in metropolitan areas, and the inability to channel the disperse and diffuse nature of urban settlements, the actual state of affairs has been accepted to the point of declaring the end of Urban Design (Sorkin, 2009). However, if we still want to take part collectively in the construction of a contemporary urban culture, we should not resign ourselves to an urbanism that has been revealed as an obsolete practice, nor to the urban project as an inevitable failure; instead we should focus on its redefinition as well as its ultimate and fundamental goals.

The reading of territory that Gregotti, Solà-Morales and others were dealing with back in the 80s implied a fundamental leap forward toward expanding the disciplinary boundaries of architecture and urbanism by acknowledging both the impor-

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para la arquitectura y el
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Spatial practices in an
urban world. Reassessing
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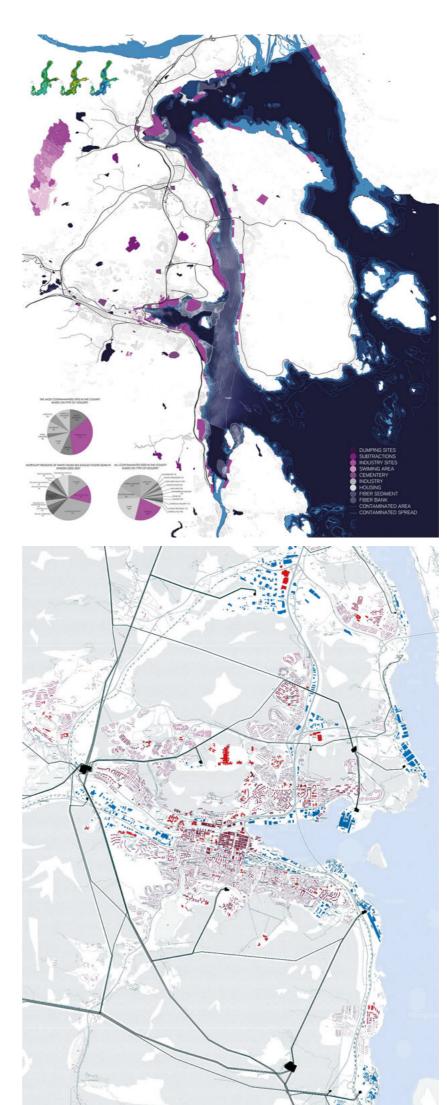
tance and the potential of landscape in the understanding of urbanisation processes and by bringing geographical questions into architectural discourse and debate. Placing architecture within the larger context of urbanisation acknowledged the interwoven relations between architecture, society and culture, yet it still operated with a static idea of territory as bounded space, both politically and physically. The take on territory as a dynamic, historical and political concept, as presented by Elden, together with the contemporary planetary dimension of urbanisation exposed by Brenner, once again bring to the fore the need for reconceptualising the use of territory within spatial practices to incorporate the global restructuring processes, their causes and effects, starting with the recognition that territory is a completely urbanised space. The proposed reading of the territory establishes a clear conceptual difference with the fluids and systems theories that attempted to provide a mechanical description of the urban phenomena and argues for a territorial material practice as a discipline that is concerned and intervenes in the behaviour of large-scale configurations and assemblages over time (Allen 2007).

Landscape architecture and urbanism, as well as ecological design, have fundamentally dealt so far with the effects of metropolitan and regional urbanisation, seeing leftover and in-between pieces of land as sites of opportunity (Berger 2006), while avoiding a critique of capitalist development and, in many cases, paradoxically participating in market-driven strategies - gentrification, green urbanism for the rich - generally limiting their task to the reprogramming of the urban (non-built) surface (Wall 1999). Overlooking the socio-economical and political dimension of urbanisation has resulted in a metric-based, short-term, overly technocratic and managerial response to a crisis rooted in the political. As Erik Swyngedouw and Henrik Ernstson have argued, the central question today "is not any longer about bringing environmental issues into the domain of politics [...] but rather about how to bring the political into the environment" (2015). It involves a shift towards what Peg Rawes has called 'architectures of care' (2013), as practices that operate within an ecology that questions "the 'neutrality' of state governance and markets for our ecological well-being" (Rawes 2016, 16), that assumes the "long-term human interference in geological and environmental resources" and describes the pathological human-nature relationship as "the most disturbing and pernicious largescale forms of biopolitical crisis for human and non-human relations" (15). In short, it requires a critique of self-indulgent sustainable architecture/landscape design, blind behind a homogenising green blanket, and its inability to address the conflictual dimension of our environmental crisis.

If, like Susannah Hagan suggests, for architecture to survive as a profession, architects and urban designers need a "working knowledge of the metrics of environmental design, and of implications of ecology for the (re)making of cities" (Hagan 2015, 31), it should not happen at the expense of the spatial, the social or the political. From the disciplinary perspective of urbanism, the analysis of an urban region and its operational landscapes has to look at the larger processes that shape its ecological and territorial systems, but also at the sedimentation of metabolic flows as concrete material structures, thus focusing on the interplay between a global conceptual framework and the very specific dynamics of particular contexts. A new ground for architecture and urban design that explores the potential of social and political transformation must be constructed, away from the land speculation of the real estate market and the pressure of the neoliberal economy, to confront uneven social and environmental capitalist development. A reconfiguration of the neoliberal sea of urbanisation into territorial ecologies should address issues ranging from political economy and governance to ecological thinking, and it needs to be imbued with a new understanding of what constitutes the 'urban', a new notion of urbanity arising from specific contemporary conditions, concerned with articu[Fig. 4] Territorial Ecologies, Sundsvall, Sweden. The mapping of specific ecological/territorial layers result in different configurations and patterns. The image on the left brings together industrial settlements and pollution of soils, waters and seabeds. The image on the right shows the territorial impact of infrastructures of energy production and distribution together with building performance.

[Fig. 4.1] LSAP 2014: Nathalie Jonsson, Andreas Jonsson, Hanna Johansson, Elisabeth Pettersson.

[Fig. 4.2] LSAP 2014: Radvile Samackaite, Francesc Mas, Ann-Christine Forsberg, Viktor Sjölander.



#### **ADRIÀ CARBONELL**

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Spatial practices in an urban world. Reassessing territory and ecology as a new ground for architecture and urban design lation rather than consolidation, that works on the recognition and configuration of territories, not only in the formal and material sense, but in political, social and cultural terms as well.

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