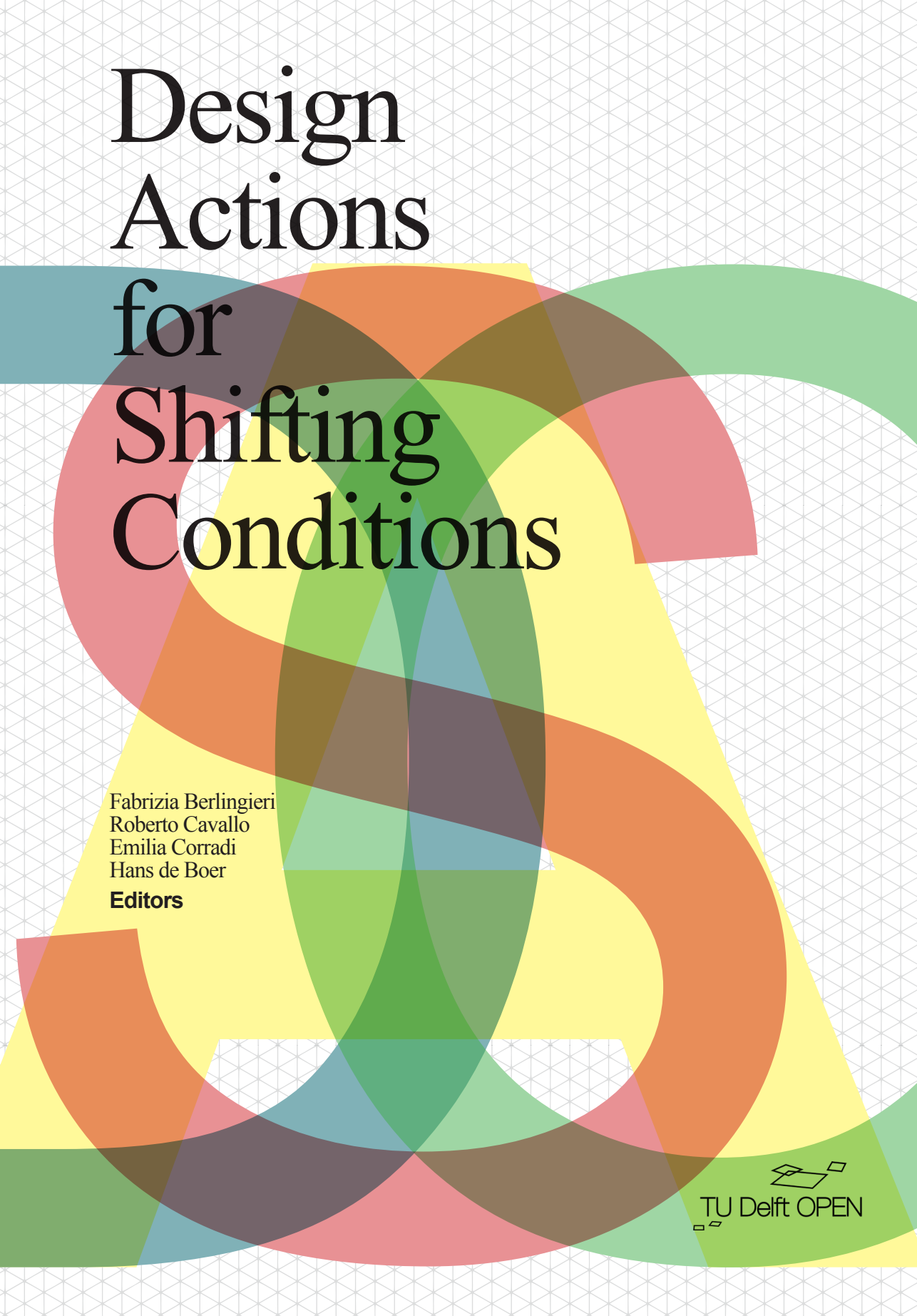


Design Actions for Shifting Conditions

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Fabrizia Berlingieri
Roberto Cavallo
Emilia Corradi
Hans de Boer
Editors

Design Actions for Shifting Conditions

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Roberto Cavallo
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Hans de Boer
Editors



POLITECNICO
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DIPARTIMENTO DI ARCHITETTURA
E STUDI URBANI



DIPARTIMENTO
D'ECCELLENZA
FRAGILITA' TERRITORIALI
2018-2022

 **TU**Delft

 **TU**Delft

Deltas, Infrastructures &
Mobility Initiative

DESIGN ACTIONS FOR SHIFTING CONDITIONS

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Keywords

Urban Design, Transition, Climate Change, Architectural design

Published by

TU Delft OPEN Publishing | Delft University of Technology, The Netherlands

ISBN/EAN: 978-94-6366-517-9

DOI: <https://doi.org/10.34641/mg>.

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Layout design: Kevin Santus
Cover design made by Fabrizia Berlingieri

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The publication has been realized thanks to the contribution of:

DASu “Territorial Fragilities” Research Project funded by the Italian Ministry of Education, Universities and Research (MIUR), Departments of Excellence Initiative 2018-2022; DIMI Deltas, Infrastructure and Mobility Initiative, TU Delft.

Participating universities:



University of Ljubljana

Warsaw University
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The background of the page is a repeating geometric pattern of small, light green triangles and squares. The pattern is centered around a white rectangular area where the text is located.

Reflecting on Practices

The third section deepens the possible interactions between research, practice, and education through innovative methods and integrated actions.

Starting from a more general reflection on the urgency to reconsider climate change impacts on spatial urban dimension, the first contribution enlightens the emerging aesthetics and the current design processes overcoming technical approaches.

The two following papers of Jutta Hinterleitner and Laura Pogliani further specify the modalities through which the mutual interdependency between scientific research and design practice actions can occur, starting from two different experiences and perspectives. The research programs boosted by the BNA Research Department within the Royal Institute of Dutch Architects, involving professionals, education activities, public bodies, and stakeholders, propose alternative learning networks

aiming to improve the collective responsibility about the social impact of new design actions. The expertise of Academic Departments, such as the DASTU (Department of Architecture and Urban Studies) from Politecnico di Milano, enhance the social role of research and its positive contribution to build multidimensional and multiscale frameworks for urban and environmental regeneration actions, without renouncing to pose a critical perspective.

Specific viewpoints, focusing on the Italian and Greek contexts and debates, enlarge the discussion to the decision-making processes about environmental policies and the necessity to improve national and international stages for a shared discussion.



DESIGN STRATEGIES FOR URBAN RENATURATION

Fabrizia Berlingieri

¹ Informal Meeting of EU Ministers Responsible, Urban Agenda for EU, Pact of Amsterdam, 30 May 2016 Amsterdam, The Netherlands.

² European Commission, The European Green Deal, presented on 11.12.2019 in Brussels.

³ «In order to address the increasingly complex challenges in Urban Areas, it is important that Urban Authorities cooperate with local communities, civil society, businesses and knowledge institutions. Together they are the main drivers in shaping sustainable development with the aim of enhancing the environmental, economic, social and cultural progress of Urban Areas.» Pact of Amsterdam, p.4.

⁴ Among many others, some examples are the Rotterdam Climate Change Adaptation Strategy in 2015, the Paris Climate Action Plan in 2016, or the London Environment Strategy in 2016, see <https://resourcecentre.c40.org/>. Last access: 20.08.21

⁵ About the binomial City-Nature, an original interpretation comes from the philosophical reflections of Rocca, Ettore. 2020. "Architecture: From Time of Mind to Time of Nature", *Technè* 20, 23-28.



Luchtsingel project and the Hofplein station, ZUS, Rotterdam 2015.
(photo: F. Berlingieri)

Dynamics

By looking at contemporary urban design practices on environmental rebalancing, an expanded field emerges. Its foundations are based on high standards of specialised knowledge, where the predominance of eco-technicism appears to be the leading research perspective able to face and orient solutions for the crisis we experience. A multifaceted and structural condition that refers to several ongoing and connected phenomena related to Climate Change dynamics (Marvin and Bulkeley et al. 2018) affecting the habitability of the world's regions, also with the increasing massive urbanisation versus the progressive abandonment of agricultural land (UN 2018).

On a European level, the adoption of the *Pact of Amsterdam*¹ in 2016 and the *European Green Deal*² in 2019 show the advancement of policy-oriented actions to establish a shared framework through a more and more enlarged platform of participation³. EU policies, and their adoption on the national levels, profoundly impact the physical transformation of urban spaces, reshaping the contemporary cities' profiles. Indeed, several metropolitan areas have already adopted action plans to promote urban transitions, with a specific reference to adaptive strategies for climate change, profoundly directing the design discourse at considerably improving nature in urban spaces⁴. A main concern regards the material and immaterial damages that climate change, in its most catastrophic manifestations, causes to the functioning of the urban systems. It must be said that it is a concern measured on the cities and metropolitan systems' economic scales. Adverting the consequences of climate changes costs more than 'accommodating' them, as much as possible, through the mean of urban adaptation to shifting conditions. But in this desperate race for remedies and short-term solutions to mitigate the effects of choices that have proved to be profoundly unjust and harmful, limited space is offered for broader reflections able to look beyond a perennial state of urgency⁵. Also, the contemporary dynamics reveal a progressive uncertainty of the global economic and political systems and claim for a paradigmatic shift (Bulkeley 2003) by questioning the spatial impacts on cities, which will be the main actors of transformation in the coming decades (Sijmons 2014). Beyond taking the hit and changing course to manage natural resources in designing more liveable cities,

we should not forget to aim for deeper thinking on precisely how it is possible to reimagine the relationship between man and nature, cities and nature.

«The Anthropocene is a world-engulfing concept, drawing everything and being imaginable into its purview, both in terms of geographic scale and temporal duration. Climate crisis, fueled by predatory capitalism, has the potential to embolden the powers that be to exert draconian controls over far-flung populations, unprecedented in nature and scope. Can we instead learn new ways of being in the face of this challenge, approaching the transmutation of the ecosphere in a spirit of experimentation rather than catastrophic risk and existential dismay? » (Howe and Pandian 2020, 22)

Requestioning nature

In a time constantly turned to its present, actions mostly precede reflections. The latter is essential to broaden horizons, correctly pose the underlying questions, and demystify preconceived attitudes. Since the last decades, we have been overwhelmed by concepts such as sustainability, vulnerability, mitigation, and the latest of adaptation and resilience. This vocabulary guides our decisions as architects and researchers in the urban field. Yet, while it should represent a steady rudder to navigate in stormy waters, it often uses increasingly abused rhetoric. A clear example could be provided by talking about the spreading of a greening eco-imagery, populating almost every urban design proposal. According to Douglas Spencer:

«Ecological crisis, too abstract to afford easy pictorial representation, too much the product of complex interrelations and interactions seemingly beyond the means of individuals to comprehend or to address, is naturalized, reworked into the infantile projection of a ubiquitous greening of space for personal enjoyment.» (Spencer 2019, 169)

The contemporary city resizes its artificial footprint with the increase of new natural spaces, and this evidence clearly cannot be denied when looking at the ongoing urban transformations. New ecological corridors, wetlands, and forests are progressively substituting large leftover areas and residual or abandoned spaces that characterized the city's fast-growing last century. This process has consequences not just on the technical responses to the reduction of climate change effects but mainly on the appearance of new aesthetics, new ways, and values to perceive urban systems. For example, according to Mirko Zardini, Sensorial Urbanism is a different mode for design practices to explore the character and atmosphere of places for a broader understanding of urban settings (Zardini 2015). In this perspective, climate change and urban design are interlaced not

only with the scope of delivering eco-technical solutions, but their interrelation speaks about the new witnesses of a more profound understanding of the emerging phenomenon. The latter deals with offering alternatives and novel ideas on how common spaces can be reassessed by design from a semantic point of view. The most relevant experiences, currently reshaping the 20th-century ideal antithetic relation between nature and urban settlements, insist on the importance of conceiving a new co-inhabitation between the uncontrolled natural status of the environment with one of the artifice still structuring the common imagery of urban and metropolitan contexts⁶. According to Kengo Kuma, cohabitation arises from removing the Western scheme firmly anchored to visual perception, creating architectures as objects, as manifests of a manufactured world and autonomous in respect to the continuous natural cycles.

«As long as we insist on the primacy of visual perception, reject the absolute character of vision. This does not mean we simply need to introduce sounds, textures, odors. The answer is not to increase the types and numbers of perceptual frames but to see whether or not we can make manifest that totality called “place” - a three-dimensional totality of such diversity that it defies easy description. That becomes our actual goal, once we set about trying to “erase architecture.” Erasing the object, we must make manifest a place in its stead.» (Kuma 1997, 49)

It is also the main *j'accuse* of Juhani Pallasmaa when affirming:

«I believe that many aspects of the pathology of everyday architecture today can likewise be understood through an analysis of the epistemology of the senses, and a critique of the ocular bias of our culture at large, and of architecture in particular. The inhumanity of contemporary architecture and cities can be understood as the consequence of the neglect of the body and the senses, and an imbalance in our sensory system.» (Pallasmaa 2021, 21)

Although far from the radicality of their positions, it is inevitable to note how more and more often, contemporary urban design practices and theoretical approaches relate to terms such as character, atmosphere, and sensoriality. A new behavior based on the aesthetic experiences of closeness and immersion in a re-found naturality with the disappearing of a critical distance in design proposals, or an act of abstraction, toward the conceiving the spatial meanings of built contexts. Le Corbusier's birds-eye perspective, representing the modern city in its autonomy *vis a vis* the natural status of the ground level, loses the capacity to describe and define the world we inhabit, substituted by a new internal view that is non-hierarchical, temporary, and unstable. Urban

⁶ See Buš, Peter. 2019. “Large-Scale Urban Prototyping for Responsive Cities: A Conceptual Framework”, *Front. Digit. Humanit.*, 6:1. DOI: 10.3389/fgdigh.2019.00001.

Renaturation (Berlingieri and Valente 2021), which refers to the ecological restoration discipline, describes the ongoing, pervasive process of reintroducing the wild natural sphere within the urban contexts. It shapes a cross-disciplinary ground for diverse design disciplines, starting from urban planning, often translating policy orientations onto strategic guidelines for future sustainable urban visions and developments, influencing new spatial settings (Bulkeley and Betsill 2003). A second approach merges natural sciences and environmental landscape design, addressing ecosystem services to improve urban resilience through nature-based solutions (Kabish et al. 2018) and enhancing the presence of new blue and green natural infrastructures within the built context. A third setting, in which urban renaturation occurs in design disciplines, relates to urban design scale. Specifically, it refers to the remodeling of the open spaces that implies public areas (Pollak 2006), infrastructural leftovers (Nijhuis et al. 2015), or abandoned built complexes (Bergevoet and van Tuijl 2016) through reuse and adaptive design strategies. The first common feature between the three fields above described relies on performativity. The main strategical choices do not question innovation and quality of the spatial experience, limiting the evaluation of the results to an almost quantitative level (Gandy 2015). A second common feature is a sort of renunciation of the intellectual act of abstraction when designing natural spaces, a theoretical position of alterity between manmade interventions and natural spatial settings. It is not just a conceptual node visible in current architectural trends, but in general, it identifies a new cultural attitude. Indeed, more and more, architectural responses to climate change dynamics are reflected in proposals that replicate nature in the design of the city's open spaces, mimicking its forms even with a certain naivety. The design approaches that tackle the theme of natural – and technologically advanced – mimesis, consciously attempt to the co-inhabitancy of the urban matter, the artificial *par excellence*, with the life cycles of nature and even more proposing figurative replicas, with the risk of an almost ornamental approach to nature's interpretation through urban design. How is it possible to test the concept of a new sensorial design, towards the co-inhabitation between urban form and natural space, in contemporary design practices without falling into unpretentious, and often economically unsustainable, attempting?

Reflecting on practices

A relevant shift in contemporary design approaches occurs not only regarding the increase of experimental practices involving a wide range of actors or stakeholders and building *ad hoc* procedures, but considering a different horizon in which these practices move. The interlacing of ecology, politics, technology, and social behaviour for the design of urban environments needs a broader perspective.

In fact, when approaching sustainable development and adaptation strategies, architectural aesthetics are overlooked, where this sphere could significantly define a semantic turn. As outlined in the previous paragraph, it transfigures a new perceptual experience of nature into the urban matter through the emergent aesthetic category of sensoriality. However, its translation onto design themes is approached with different priorities within the contemporary and most dedicated design practices, putting it in relation to temporality, to wilderness, and even transposing it on a more conceptual level of artistic expressions.

The theme of temporality in urban design has assumed increasing importance in recent years. From a compositional point of view, the design of public spaces becomes more and more a design of permeable and natural soil that supports the seasonal cycles and the dimension of the passage of time. One example is the work of the Danish firm of Stig L. Andersson (SLA). The projects for the renaturation of public spaces, such as the *Gellerup Urban Park*⁷, a large redevelopment of open spaces within a social housing district, work with the seasons but also with the decay of time and the transience of the natural element. The spaces welcome dead trees where they build the nourishment of the soil in their status. But, on another level, temporality is also associated with a programmatic functional undefinition. The issue of the spontaneous growth of the urban spaces in a process of renaturation, has implications both at the social level and at the level of planning and development of the city. The spaces change according to the conditions dictated by the inhabitants, continually transforming under the establishment of different functions that restore the sense of community, rather than the image of a traditional public space. This strategy offers the replacement of design 'vision' and 'strategy' with those characterised by discrete and implementable processes, binding design results to a *permanent temporality* (ZUS 2016, 307). The results translate onto discrete models, whose construction materialises through actions and forms that however can be replicated beyond the contextual conditions and which evolve according to those conditions' changes. In that sense, the project's proposition corresponds to the demonstrability of its positive environmental impact, like, for example, the measurement of mitigation or adaptation effects to climate change conditions in the short or medium term, projected towards a vital technological innovation.

Parallel to that, other experimental practices engage urban renaturation through the concept of wilderness⁸. In this context, «the distinction between human artifice and ecological succession becomes progressively blurred» (Gandy 2006, 70). In this semantic reversal, the environmental focus is not just a moral dictate but a form-generative and sense-production for contemporary urbanscapes. The recent works of Piet Oudolf and Olafur Eliasson can provide some examples.

⁷ Both projects, conceived by West 8 architects and urbanists, have direct references on publications and description on the website: <http://www.west8.com/>.

Last access: 20.08.21

⁸ Regarding the meaning of wilderness as space or region, leftover by man to nature evolution reference is to Gilles Clements' position, contained in his books *Manifeste du Tiers-Paysage* (2003) and *Planetary Garden* (2015). Recent relevant research on wilderness in urban and metropolitan conditions is developed by the geographer and urbanist Matthew Gandy, for example, in *Natura Urbana. The Brachen of Berlin* (2015), see Gandy, Matthew, "Marginalia: Aesthetics, Ecology and urban wastelands", in *Annals of the Association of American Geographers*, 103:6, 1301-1316.

The Dutch designer⁹ brought the concepts of spontaneity, structural complexity and seasonal interaction in his landscape projects to the international stage, primarily through his work on some of the world's most celebrated contemporary gardens and open urban spaces. An uncontrolled nature builds unexpected and changing scenarios through the careful selection of perennial plant varieties, where the senses of the users are fully involved, recovering an emotional state of immersion in the natural world.

The artistic and urban-contextual installations of Olafur Eliasson move on a more conceptual level, focusing on the perception of the space that surrounds us in environmental terms. Natural phenomena are at the centre of his interventions, and have been investigated in their scientific aspect and influence on human life. Similar is the work of Studio Roosengaarde, which continually moves between the folds of artistic installations, temporary design of public spaces and experiments on the use of technological visual devices. Instead, the installations' contents focus on the evidence of climatic effects and the challenges they imply. Virtual and augmented realities become the keys to manifest environmental urgencies, and they foster a new imagery of urban open space and its experience through (augmented) sensoriality. Another practice that triggers the imagination of new worlds by intertwining technologies and design solutions is that of the architect Philippe Rahm. His approach relies on considering climate change as an opportunity by rethinking the architecture and urbanisation of the city from an atmospheric point of view, providing a new, even sensual, quality of life to its inhabitants¹⁰.

The emerging aesthetics, briefly outlined by a few contemporary design practices, share an alternative way of looking at the relationship between environment urgencies and urban imagery, declaring the intent to go beyond merely formal trends, and addressing a broader reflection. Design disciplines, developing innovative processes and strategies, ask not for the provision of technical solutions regarding the ongoing transitions, merely following short-term horizons, but on the contrary, they deeply explore the potential in the background, dealing with a long-term perspective and anticipating future scenarios. Design research and practice aim for a radical change of attitudes that consciously accept precariousness and continuous instability as an operative framework, investigating the possibility of a 'real-time design' for the present urban transitions.

⁹ The New Perennial movement, or New Wave Planting, refers to landscape design discipline, working on the contemporary reinterpretation of the romantic garden, starting from Chinese and English traditions. The complexity and wildness of Nature becomes a specific object for aesthetic investigation, see: <https://www.landscape.net.au/a-passion-for-perennials/>. Last access: 20.08.21

¹⁰ In Philippe Rahm architects. 2017. *Form follows climate: about a meteorological park in Taiwan*. OFL Lectures.

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