

International Scientific Symposium  
Chair of Regenerative Urbanism

# GROUNDING TERRITORIAL REGENERATION BOOK OF ABSTRACTS

JADE UNIVERSITY  
OF APPLIED SCIENCES  
Wilhelmshaven Oldenburg Emsfleth

# **Grounding Territorial Regeneration Architecture and Urbanism for the Symbiocene**

**International Scientific Symposium  
1 and 2 — 10 — 2026**

**— Book of Abstracts —**

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**Regenerative  
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In an era defined by intertwined biosphere crises, technological disruptions, territorial injustices, and epistemic crises, urbanism can no longer be framed as a question of density, typology, optimization, mitigation, or resilience alone. *Grounding Territorial Regeneration* positions territory not as a passive substrate for intervention, but as a living system, as multi-scalar assemblage of human and more-than-human relations, and metabolic processes.

The symposium departs from the premise that the Anthropocene paradigm – grounded in extraction, separation, and human exceptionalism – has reached its conceptual and operational limits. Where the Anthropocene is structured by control, and externalisation, we introduce the concept of the Symbiocene, that is grounded in mutual dependence, care, and shared metabolisms. For architecture and urbanism, this entails a fundamental reorientation: away from solution-driven, object-centred interventions toward situated, long-term, and accountable forms of spatial practice that actively participate in the regeneration of territorial living systems. It shifts the emphasis from dominance to co-evolution, from extraction to reciprocity, and from isolated objects to relational assemblages. Territories are understood not as reservoirs of resources or sites of intervention, but as living, more-than-human systems, constituted through entangled ecological, social, and technical relations.

*Territorial Regeneration* is framed a transition process of re-synchronisation between human activities and planetary boundaries. Within the Symbiocene framework, architecture and urbanism are understood as critical and design-driven operative interfaces between metabolic systems, cultural practices, and political ecologies.



## Program

### **01.10.2026    Session 01 — KNOWLEDGE Making Territories Legible**

08:30 - 09:00                      Coffee and Check-in

09:00 - 09:30    Opening Radostina Radulova Stahmer, Head Chair of  
Regenerative Urbanism  
Jens-Peter Thiessen, Dean Faculty of Architecture

Introduction Stefano Tornieri, Chair of Regenerative  
Urbanism

#### **09:30 - 10:15    Keynote Lecture: Rosalea Monacella, Harvard GSD**

10:15 - 11:15    Paper Presentations

10:15 - 10:35    D. K. Ruiz Alvarez, Technical University Ostwestfalen Lippe  
Paisaje Sentido: Reframing Territorial Regeneration through  
Multisensory Care

10:35 - 10:55    C. Furlan, J. Fauster, E. Stecher, J. Furchtlehner,  
R.Tusch, BOKU University  
The Territory as Renewable Resource? Systemic  
Brownfield Mapping and Regenerative Care in the Danube  
River Basin

10:55 - 11:15    J.Fauster, E. Schwab, E. Stecher, C.Furlan, BOKU University  
Engaging Landscape Agency in the Critical Zone:  
Research by Design in Peri-Urban Territories

11:15 - 11:40                      Coffee Break

11:40 - 12:00    A.Vialle, A. Goldinger, M. Zisman Zalis, Technische  
Universität Berlin  
A Pedagogy for Soils: Mapping and Sections to  
Regenerate the Urban from the Ground Up

**12:00 - 13:00**

**Panel Discussion**

Chair: Agnes Müller, Jade UAS

Paper Presenters in discussion with Rosalea Monacella,  
Julia Köpper, Hiltrud Peron, Janina Ebner, Lutz Robbers

**13:00 - 14:30**

Lunch Break

**Session 02 — TRANSITION**

**Reconfiguring Territorial Transition**

**14:30 - 15:15**

**Keynote Lecture: Carlos Zarco, Openact**

**15:15 — 17:10**

Paper Presentations

**15:15 - 15:35**

A. Judt, U. Schneider, TU Wien

Towards an Expanded Streetscape Concept: A Case Study  
of Thessaloniki, Greece

**15:35 - 15:55**

E. J. Vergara, University of Buenos Aires

Territorial Blindness and Extractivism by Omission: Material  
Metabolism and Institutional Responsibility in Latin  
American Urban Regeneration

**15:55 — 16:10**

Coffee Break

**16:10 - 16:30**

R. Privitera, J. Ma, University of Catania, LTU Luleå

University of Technology A Social-Economic Investment  
Framework to Transform Cities into Assets for Carbon  
Storage and Sequestration

**16:30 - 16:50**

M. Modica, G. Fini, University of Udine

Territorial Regeneration as a Post-Growth Strategy in  
Intermediate Regions. The New Territorial Plan of Friuli Venezia  
Giulia as a Critical Case

**16:50 - 17:10**

Ye Ha Kim, Tina Cai, Oscar Leung

AI-Embedded Monitoring for Regenerative Territorial Care in  
Data Center Ecosystems

**17:10 - 18:10**

**Panel Discussion**

Chair: Ina Marie Kapitola, Jade UAS

Paper Presenters in discussion with Carlos Zarco, Andreas Kurths, Maximilian Theye, Volker Katthagen

18:30

Symposium Dinner at CORE

**02.10.2026**

**Session 03 – CARE**

**Sustaining Regeneration**

08:30 - 09:00

Coffee and Check-in

**09:00 - 09:45**

**Keynote Lecture: Taneha Kuzniecowa Bacchin, Royal Danish Academy, Kalundborg**

09:45 - 10:45

Paper Presentations

09:45 - 10:05

J. Möller, HafenCity University Hamburg  
Enacting Regeneration Metabolically: Ecological Maintenance and its Material Afterlives

10:05 - 10:25

P. Treichl, Westminster Law & Theory Lab  
Designing for Deep Time – Regenerative Longevity Through Multispecies Maintenance

10:25 - 10:40

Coffee and Check-in

10:40 - 11:00

M. Jeschaunig, TU Graz University of Technology  
Breathing Cities: Climate Culture as a Tool for Regenerative Urban Action

**11:00 - 12:00**

**Panel Discussion**

Chair: Ines Lüder HAWK Hildesheim

Paper Presenters in discussion with Taneha Kuzniecowa Bacchin, Markus Krieger, Lena Flamm, Natacha Quintero González, Berit Jagels, Almut Wolf

12:00 - 13:30

Lunch Break

**13:30 - 14:15    Keynote Lecture: Milica Topalović, ETH Zurich**

**14:15 - 15:00    Video Positions**

Juliana Canedo, Benedetto D'Antoni, Ying-Lan Dann, Janina Ebner, Dario Felice, Berit Jagels, Luise Kempf, Andreas Kurths, Francesca Malleo, Benedetta Medas, Anna Minissale, Sofia Privitera, Natacha Quintero González, Geoff Robson, Amelie Rost, Sergio Sanna, Saskia Schut, Joseph Smithard, Maximilian Theye, Justine Walsh, Kathrin Wieck, Ben Wood.

**15:00 - 15:30    Closing Panel Discussion**

Chair: Stefano Tornieri

Panelists: Milica Topalović, Taneha Kuzniecowa Bacchin, Rosalea Monacella, Markus Krieger, Christine-Petra Schacht, Radostina Radulova-Stahmer

**15:30 - 15:45    Conclusions and Outlook**

**16:00 - 18:00    Urban Walk City Centre of Oldenburg**



## **Session 01 — KNOWLEDGE**

### **Making Territories Legible**

#### **What Makes a Territory Legible as a Living System?**

**Territorial regeneration begins with developing a more integrated understanding of existing spatial structures, ecological processes and local conditions. This session explores methods of spatial analysis, mapping, observation and situated inquiry that make territorial interdependencies, environmental dynamics and latent potentials visible. The contributions move beyond sectoral and purely functional readings of space by combining field-based knowledge, ecological indicators and relational forms of mapping. Particular attention is given to the interaction between settlement structures, open spaces, infrastructures, soils, water systems and more-than-human processes. Regeneration is therefore understood as a knowledge-based and place-specific process. Before spatial transformation can be planned, existing conditions, path dependencies, vulnerabilities and development potentials need to be identified and interpreted. In this sense, territorial analysis becomes a central component of integrated and climate-responsive spatial development.**

# **Paisaje sentido: Reframing Territorial Regeneration through Multisensory Care**

Darell Katherine Ruiz Alvarez

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Territorial regeneration cannot occur within the same perceptual paradigm that produced territorial fragility. Architecture, urbanism and landscape planning remain largely anchored in a visual hierarchy that privileges distance, abstraction and control. As Nicola Di Croce describes it, this “human dominant perspective” sustains entrenched dualities—human/nature, mind/body, —reducing landscape to a distant and consumable image. Such ocular-centrism is not neutral: it shapes how territories are analysed, designed and governed, reinforcing extractive logics that undermine long term stewardship. This separation contrasts sharply with relational ontologies described by Arturo Escobar, particularly in Indigenous and Afrodescendant territorial practices, where territory is not an object but a living web of interdependent bodies— human and more-than-human. Mountains, forests and bodies of water are not external scenery but active participants in continuous interaction. From this perspective, regeneration is inseparable from reconnecting the sensing body to other bodies in territory. The problem addressed in this paper is therefore both epistemological and methodological: how can territorial regeneration be grounded in practices of care if analytical frameworks privilege visual and functional parameters over embodied and relational experience? The objective is to propose Paisaje Sentido (perceived and at the same time meaningful landscape) as a conceptual and applied framework that integrates multisensory perception into territorial analysis, reframing regeneration as a continuous and embodied practice of care.

**Keywords:** Territorial Regeneration; Multisensory Perception; Relational Ontologies; Embodied Landscape; Care Protocols

# **The Territory as Renewable Resource? Systemic Brown-field Mapping for Grounded Territorial Regeneration in the Danube River Basin**

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Territory is not a fixed background for development. It is a substrate — active, stratified, degraded in places, and in many places, renewable. The brownfields of the Danube Region are not evidence of failure. They are a description of where metabolism has been externalised, where industrial processes have left their mark on soil and water and community, and where the potential for territorial renewal is, paradoxically, most concentrated. This paper argues that mapping these sites — systematically, openly, and with full acknowledgement of uncertainty — is itself a form of care: a political and relational practice that makes territory legible as a renewable resource.

Keywords: brownfield regeneration; territory as resource; thick mapping; regenerative care; Danube Region; No Net Land Take; systemic design

# Engaging Landscape Agency in the Critical Zone: Research by Design in Peri-Urban Territories

Jennifer Fauster, Cecilia Furlan, Eva Schwab, Emilie Stecher  
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Peri-urban territories occupy an uncomfortable position in planning and design discourse: neither city nor countryside, they are typically read through their deficiencies rather than their qualities. This paper argues that this framing misses something consequential. In four Austrian river valleys — the Lower Mur near Leibnitz, the Lower Traun near Marchtrenk, the Lower Lavant near St. Paul im Lavanttal, and the Raab valley near Weiz — the dispersed, fragmented, in-between condition that planning registers as disorder is, when read through soils, water regimes, and vegetation communities, a differentiated more-than-human assemblage actively co-producing the spatial possibilities of the territory. Drawing on research by design developed through studio co-design with students at BOKU University Vienna, the paper asks what landscape architecture and urban design contribute to territorial regeneration when that regeneration is grounded in the processes of the Critical Zone rather than imposed upon them. A four-phase methodology of Revealing, Grounding, Calibrating, and Settling structures this inquiry, and fieldwork evidence — soil samples, water samples, vegetation testimony, and soil chromatography — forms its primary archive. The paper proposes that attending to landscape agency, caring for what the ground is already doing, and working with the flux and multiplicity of peri-urban territories rather than resolving them into stable spatial order, are not peripheral concerns for landscape architecture and urban design but central to their contribution to regenerative territorial practice.

**Keywords:** landscape agency; Critical Zone; research by design; peri-urban territory; care

# A Pedagogy for Soils: Mapping and Sectioning to Regenerate the Urban from the Ground Up.

Antoine Vialle, Aniella Goldinger, Michel Zisman Zalis  
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Through societal engagement, transdisciplinary collaborations with life and earth scientists, local actors and stakeholders, cue, the new chair for Transitioning Urban Ecosystems at TU Berlin, is committed to develop design strategies for urban soil preservation and regeneration. Such endeavor stems from the conviction that soils within cities are a crucial lever for socio-ecological transition. In turn, the necessary requalification of metropolitan areas offers an opportunity to improve urban soil health. Reactivating urban soil functions is indeed essential for mitigation and adaptation to climate and other environmental crises, towards equitable territorial resilience. This agenda implies a deep regeneration of urban design practices to co-produce interdisciplinary knowledge, nature-based solutions, alternative processes and tools. cue's contribution explores the methodological challenges of Soil-Regenerative Urbanism by presenting two teaching experiments: two urban design studios that have respectively investigated the urban contexts of Berlin and Zürich. The sometimes-conflicting challenges of densification, urban regeneration and climate adaptation have been critically addressed in the background of the two case-studies' distinct governance frameworks, specific geographies and evolving landscapes; the sandy Berlin Urstromtal and the more clayey moraines in Zürich. Since the two design studios take place at different stages of the training of architects and urban designers, they also provide an opportunity to explore various connections between pedagogy and project-based practices for Soil-Regenerative Urbanism. The Berlin case study, taught at the bachelor's level, establishes the fundamentals of ecological design at the urban scale, while the Zürich case study offers master's students an opportunity for research-based exploration at the metropolitan and regional scales. Our contribution reflects on how each case offered an opportunity to co-produce innovative graphic representations to read and transform the urban environment from the ground up, by reinterpreting horizontal mapping and vertical sectioning. Through these two case studies, we highlight methodological approaches for Soil-Regenerative Urbanism, offering a novel interpretation of the city based on the categories of urban ecology and social interactions, as well as sectional representations that support an interdisciplinary understanding of the urban soil system.

Keywords: Soil-Regenerative urbanism; Carbon sequestration; Pedagogy; Mapping; Transects



## **Session 02 — TRANSITION**

### **Reconfiguring Territorial Transition**

#### **How Can Territorial Routines Shift from Extraction to Regeneration?**

**Territorial regeneration is not only a question of new projects, but of transforming existing spatial structures, infrastructures and institutional routines. This session examines how established systems of land use, mobility, material flows, water, energy and public provision can be redirected from resource consumption towards regenerative and circular forms of development. Drawing on perspectives of integrated urban and regional development, the contributions address the transformation of existing infrastructures and spatial stocks, ranging from streets and digital infrastructures to timber supply chains and urban green systems. Particular attention is given to the interdependencies between technical infrastructures, ecological systems, public services and institutional frameworks.**

**Regeneration is therefore understood as a process of stock-oriented and socio-ecological transformation: one that combines infrastructure renewal, circular resource management, climate adaptation and public-interest-oriented governance. Rather than optimising individual projects, territorial transition requires coordinated forms of planning and governance capable of reorganising the material, spatial and institutional routines through which cities and regions are continuously reproduced.**

# **Towards an Expanded Streetscape concept: A Case Study of Thessaloniki, Greece.**

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This paper examines an 'Expanded Streetscape Concept' that understands the arterial road system as a territorial entity integrated with the adjoining urban fabric and broader urban systems, using Thessaloniki (GR) as a critical case. In practice, arterial roads are typically planned through linear, traffic-centred logics that overlook socio spatial, ecological and economic relations with adjoining neighbourhoods and territorial systems. Thessaloniki's dense structure, limited green spaces and high motorisation rate intensify heat-island effects, air pollution and flood vulnerability. While the arterial road system forms the city's backbone, it simultaneously fragments neighbourhoods and disrupts ecological corridors.

Using a mixed methods, situation analysis approach, the study develops a spatial typology for Thessaloniki's arterial roads and maps territorial relations across selected segments. It then applies the 'Expanded Streetscape Concept' to the Lagkada corridor to test its feasibility. Results identify seven spatial types and show central corridors acting as linear urban centres, peripheral stretches serving through traffic functions, and military/institutional enclaves disrupting continuity yet offering significant open space resources. Overlapping thematic territories of city-wide importance show how segments of the arterial road system are link with blue-green systems, economic activities and intertwined, and everyday life.

Thus, the 'Expanded Streetscape Concept' reframes arterial roads as sequences of nodes, clusters and stretches whose territorial relations can guide climate responsive and socially just urbanism, shifting practice from flow optimisation to the regeneration of relations.

**Keywords:** arterial roads; streetscape; morphology; urban fabric; urban systems

# **Territorial Blindness and Extractivism by Omission: Material Metabolism and Institutional Responsibility in Latin American Urban Regeneration**

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In the context of post-fossil urban transitions, wood has been progressively repositioned as a strategic material to reduce the environmental footprint of the built environment. However, the incorporation of timber resources depends not only on their technical or ecological properties, but also on the institutional structures that regulate their circulation within urban systems. This article examines a paradox within Latin America —a region with some of the world's most consolidated community forest governance systems— where public procurement platforms incorporate wood as a standardized administrative commodity while excluding the socio-territorial conditions that sustain its production. Based on a qualitative-comparative analysis of five national procurement systems (Argentina, Brazil, Chile, Mexico, and Guatemala), this research analyzes how state acquisition mechanisms record, translate, or invisibilize information linked to forest governance, territorial traceability, and ecological responsibility.

The results show a convergent pattern of institutional exclusion regarding socio-territorial provenance within effective procurement criteria. This condition is conceptualized as territorial blindness and produces what this article defines as extractivism by omission: forms of institutional decoupling between materials, territories, and structures of ecological responsibility.

In response, this work proposes Associated Forests as a reconfiguration of public procurement that rearticulates the links between urbanization, forest territories, and community governance through socio-territorial traceability mechanisms and long-term ecological accountability, while formally integrating forest communities into urban decision-making processes, reversing their institutional invisibilization.

**Keywords:** Territorial blindness; Extractivism by omission; Urban metabolism; Socio-territorial traceability; Public procurement

# **A social-economic investment framework to transform cities into assets for carbon storage and sequestration**

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Human activities are massively altering the climate through adding tremendous amounts of CO<sub>2</sub> and other greenhouse gases to those naturally occurring in the atmosphere. Reducing gases in the atmosphere is on top of the agenda of several international bodies that are committed to climate change mitigation and adaptation policies. However, while the contribution of greenhouse gases emissions is global, the impacts of climate change occur at local level where adaptation strategies should be urgently implemented through a huge increase in urban nature which can provide many relevant ecosystem services. In this light, urban afforestation, intended as a strategy of maximising new trees plantation within cities, could be appropriate to increase the overall vegetation cover in order to offset carbon emissions and improve the potential for carbon storage and sequestration. Through land-use regulation plans, urban layouts can be changed accordingly, and the amount of greenery may be adjusted as well as enhanced in extent and size. Moreover, understanding the monetary value of carbon storage and sequestration can be intended as a powerful tool for raising awareness about the importance of the public value of adaptation to climate change. Indeed, urban nature is increasingly recognised as a form of natural capital that generates measurable economic, social and environmental value through ecosystem services. At the same time, governments and financial institutions require robust valuation frameworks to justify investments in greenery and to integrate natural capital into formal accounting and decision-making processes. This paper discusses a social-economic investment framework for valuating carbon storage and sequestration in the context of a natural capital account approach. Arguments of the study can help on a better understanding of the economic impacts of a rupturing urban afforestation scenario that could transform cities into assets for carbon sequestration while drawing a new cultural model for a safer and healthier society.

**Keywords:** carbon storage and sequestration; climate adaptation; urban afforestation; natural capital account; public investment

# **Territorial regeneration as a post-growth strategy in intermediate regions. Friuli Venezia Giulia's new Territorial Plan as a critical case.**

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In the context of an ever-polarizing European spatial development, where metropolitan systems are overwhelmed by increasing human and capital concentration while rural areas are vanishing due to aging and uncontrolled rewilding, intermediate regions are emerging as unexpected smart guests.

Often described as urban-rural bridges, these hybrid territories share features and trends such as high ecological value and ecosystem scale, dispersed urbanization with land take and car-dependency issues, the growing relevance of regional capitals or regipolises, a vital yet traditional economic structure, and locally variable demographic stagnation. While many of these territories were once referred to as marginal in growth-oriented spatial development paradigms, they are now increasingly emerging as critical grounds for experimenting with and implementing post-growth scenarios based on socio-ecological regenerative approaches at the regional scale. This latter perspective is further explored using the Friuli Venezia Giulia region in Italy as an evidence-based case study, within the framework of an ongoing research project supporting the development of the new regional territorial plan (Piano di Governo del Territorio).

Territorial regeneration is here understood and addressed as a multiscale planning and design strategy to reconcile human and non-human ecologies, acting on and within the complexity of an exemplary landscape of modernity which has largely exhausted its driving force.

Through a critical portrait of the regional territory, including data, self-elaborated cartographies, and visual and design explorations, the concept of territorial regeneration gradually emerges as, in fact, a "territorial project" to enable alternative, post-growth futures. Key aspects such as the role of natural capital and ecosystem services in climate adaptation, growth-neutral or growth-negative urban land-use plans, or the fifteen-minute region are discussed in relation to the spatial strategies outlined so far in the research project. Through the lens of this critical case study, and the specific focus on intermediate territories within the European context, the contribution places itself into the international debate on territorial regeneration as a conceptual and strategic approach to design post-growth futures.

**Keywords:** intermediate territories; post-growth planning; territorial design; territorial project; regional planning

# AI-Embedded Monitoring for Regenerative Territorial Care in Data Center Ecosystems

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In the Symbiocene era, territorial regeneration requires a shift from anthropocentric extraction to reciprocal co-evolution between human technologies and more-than-human systems. Data centres exemplify this tension: they consume between 1% and 3% of global electricity and substantial volumes of cooling water, while altering local microclimates, hydrology, and biodiversity. This paper reframes the data centre as an entangled participant in territorial metabolism and proposes AI-embedded monitoring as a care protocol for regenerative spatial practice. We implement a real-data-forced simulation of a hypothetical three-facility hyperscale cluster in the Amsterdam / North Holland region of the Netherlands. The pipeline ingests real environmental observations. This includes KNMI hourly meteorology, Dutch BRO groundwater monitoring records, and GBIF biodiversity occurrences—across 2020–2024, constructs a 200-node virtual sensor network at 15-minute resolution, and trains an LSTM forecaster and a gradient-boosted decision-tree controller to drive cooling operations. We compare four conditions: reactive baseline, AI-monitoring, AI-monitoring with habitat alerts, and AI-monitoring with inclusive governance. Relative to baseline, AI-monitoring reduced annual cooling-water consumption by 46.3%, groundwater-level deviation by 54.2%, and heat-island intensity by 18.4%; habitat alerts improved multi-species continuity by 8.3%, rising to 11.6% under inclusive governance. All comparisons remained significant after Bonferroni correction. The results show that operational efficiency and ecological restoration are not in tension when AI systems are explicitly designed for both, but that habitat regeneration requires dedicated, governance-supported protocols rather than incidental efficiency gains. We position architecture and urbanism as operative interfaces for territorial regeneration grounded in reciprocity and shared agency.

**Keywords:** AI monitoring; data centres; regenerative design; territorial metabolism; ecological care

## **Session 03 — CARE**

### **Sustaining Regeneration**

#### **How Can Care and Responsibility Sustain Regeneration Over Time?**

**Regeneration is not a completed state, but a long-term process of maintenance, adaptation and continuous transformation. This session examines how spatial development can be sustained through practices of care, stewardship and shared responsibility. It focuses on the long-term management of existing structures, landscapes and infrastructures and on the institutional, social and ecological capacities required to maintain their regenerative performance.**

**The contributions understand maintenance not as a secondary task following design, but as an integral component of planning and transformation. Everyday landscape management, adaptive reuse, material cycles, local knowledge and participatory forms of stewardship become key elements of a resilient and resource-conscious development of cities and regions.**

**Regeneration is therefore understood as a long-term governance task. It requires institutional continuity, appropriate management structures and the capacity to adapt spatial systems to changing ecological and social conditions. In this sense, care becomes an operational principle for climate-resilient, common-good-oriented and adaptive urban and regional development.**

# Enacting metabolic regeneration: Ecological maintenance and its material afterlives

Jona Möller  
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Situated in Hamburg's park meadows, this paper explores how 'ecological' maintenance practices and their infrastructures participate in the city's metabolic regeneration.

Urban lawns co-evolved with imaginaries of leisure, health, and order, rooted in 19th-century pastoral aesthetics and enabled by technosciences such as synthetic fertilizers, cultivar selection, and irrigation. They are now reimagined as sites of ecological improvement. Turning lawns into species-rich meadows requires mowing less often, at the right moment, and carrying the cut material away, since only nutrient-poor soils are expected to sustain such vegetation.

Focusing on mowing as a key yet under-examined biodiversity practice, the paper draws on ongoing fieldwork in a large-scale conservation project where NGOs, administrators, maintenance workers, and consultants grapple with how to care for the meadow ecologies they create.

Unlike mulching on site, removing the cut material implies the 'will to dispose', turning mowing residues into waste governed by waste policy. Ecological maintenance thus faces a paradoxical waste problem, leading the community of practice to revalue mowing's material afterlives by altering technical as well as regulatory and economic 'rules of the game'.

An analytical lens of metabolic politics shows how mowing's materiality is constituted as a 'target-object of governance' (Barua 2025). I follow practitioners lobbying policymakers on organic matter, negotiating with federal waste regulators, involving designers of new material uses, and elaborating a city-wide infrastructure concept for metabolizing it. As this infrastructure remains speculative for now, they mobilize a 'waste lens' foregrounding the material's richness and multiplicity of afterlives, rather than the waste pyramid's logic of prioritizing avoidance.

The case shows how metabolic regeneration is achieved through reconfigurations reaching beyond maintenance itself into energy, waste, and agricultural systems.

**Keywords:** Ecological maintenance; Urban meadows; Mowing residues; Metabolic politics; Waste governance.

# Designing for Deep Time – Regenerative Longevity Through Multispecies Maintenance

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Architectural longevity has traditionally been framed as resistance: buildings as fortresses against time, decay, and ecological processes. This paradigm, inherited from modernist and capitalist logics, continues to dominate design, despite the unavoidable reality that all structures require maintenance. By humans and non-humans alike. I propose multispecies maintenance as a foundational framework for architecture and biodesign, reconceptualising longevity not as resistance, but as regenerative adaptation, where survival emerges through entangled ecologies of care, decomposition, and renewal. Maintenance, typically treated as a technical afterthought, becomes a lens through which buildings are revealed as temporal assemblages, active participants in multispecies worlds. Fungi, mosses, and other non-human agents perform maintenance practices that sustain and transform material systems, while their labour mediates energy, knowledge, and agency flows across time. Maintenance thus functions as a hyperobject: distributed, temporally vast, and politically charged. Designing for multispecies maintenance demands rethinking materiality, building layers, human/non-human interactions, and legal and social frameworks to produce Entangled Building Assemblages — or, more precisely, Entangled Building Bodies — dynamic infrastructures where care, decay, and regeneration are legible and instructive. This approach foregrounds the temporality of the Now and the delayed consequences of design decisions, acknowledging that maintenance is both situated and affective, shaped by embodied knowledge, emotional labour, and uneven distributions of responsibility. Maintenance also becomes a tool for education, empowering people to engage with the systems they inhabit and fostering ethical stewardship that challenges ownership, control, and extractive practices. By foregrounding maintenance as method, ontology, and lawscape, this approach allows architecture to become a living, participatory process, capable of sustaining biodiversity, human knowledge, and regenerative futures. Multispecies maintenance shifts the logic of the built environment: from independence to interdependence, from preservation to adaptation, and from control to care, offering a radical model for designing buildings that are alive in their material, ecological, social, and legal entanglements.

Keywords: multispecies maintenance; regenerative longevity, deep time, biodesign, architecture

# **Breathing Cities: Climate Culture as a Tool for Regenerative Urban Action**

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This contribution reflects Climate Culture as a tool for creating breathing cities. This form of city produces more oxygen than the lifeforms living in it consume and run circular. But to enable regenerative urban practices, a broad transformative change in society must inevitably take place. How can architectural strategies support holistic multi-species thinking and encourage individuals to enter the fast track leading to climate-positive action? This paper describes the Research-by-Design project 'Climate Culture Pavilion' (2021), a temporary green and cooling installation in public space that served as a 'micro-climatic laboratory' under transdisciplinary operating conditions. The outcome showcases how combining climate science and situational architectural settings with sensual experiences and participatory co-creative formats increased public engagement. The 'Living Lab' approach taking in this project demonstrates how applying the 'Climate Culture' concept can increase our holistic understanding of climate-relevant action, reset values, and introduce new future narratives that support climate resilience and regenerative urban life.

**Keywords:** Climate Culture; Regenerative Urbanism; Living Lab; Multispecies Design

## **Video Contribution**

### **Ground Touring: A Tributary Method for Post-Irreversible Territorial Regeneration in Narrm**

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### **Common Ground Knowledge In Space: Methods And Reflections From More-Than-Human Collaborations**

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### **Tracing Entanglements at Oberhafen - A Game Design as Methods for Tracing Multispecies Entanglements: Reclaiming Post-Anthropocentric Value in Hamburg's Oberhafen Wasteland**

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### **Where Industry Meets the Tides: Anchoring Sustainable Spatial Circularity in the Wadden Sea Region**

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### **When Decarbonisation Is Not Regeneration: Authorising the Post-Carbon Territoryj**

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### **Critical Mapping as a More-than-Human Design Practice**

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### **Becoming Garden. Notes On The Creation Of A Planetary Garden**

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### **Scientific Architectures as Territorial Care: Anticipatory Imaginaries and Community Agency around the Einstein Telescope**

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### **Street – Pub – Football Pitch An exploration of regenerative territories through shared dialogue**

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### **Bosco di Santo Pietro. Devices for a Mediterranean Critical Zone**

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## **Book Publication**

### **Grounding Territorial Regeneration Architecture and Urbanism for the Symbiocene**

Selected contributions presented at the conference will be invited for further development and considered for inclusion in an edited volume to be published by Birkhäuser in Fall 2027.

The publication will extend the intellectual agenda of the conference. Authors of selected contributions will be invited to substantially develop their conference papers into full-length article, allowing for a more extensive articulation of theoretical positions, methodological approaches, empirical findings, and design-based research.

Selection for the publication will be based on the contribution's scientific and disciplinary relevance, originality, methodological rigour, and its capacity to advance the broader debate addressed by the conference. All invited manuscripts will undergo a subsequent editorial review and revision process in accordance with the conceptual and scholarly framework of the volume.

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