

Spatial Autonomies and Hybrid Urbanism in Contemporary European Cities: An Ontological Design Perspective

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Research Article

Keywords: hybrid urbanism, spatial autonomy, ontological design, more-than-human urbanism, urban governance, co-production

Posted Date: September 8th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10587774/v1>

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Additional Declarations: No competing interests reported.

Abstract

This paper examines spatial autonomy in contemporary European cities through the lens of ontological design, drawing on five case studies—Christiania (Copenhagen), Parc de la Villette (Paris), Hammarby Sjöstad (Stockholm), Granby Four Streets (Liverpool), and Boeren Brussel Paysans (Brussels)—selected to span five decades and five distinct governance traditions. Moving beyond the binary that opposes formal planning to spontaneous, informal appropriation, the paper develops hybrid urbanism as an analytically bounded framework, distinct from assemblage urbanism, tactical urbanism, and informality studies, in that it insists jointly on the generative tension between planned and unplanned processes, the structural role of non-human agency, and the active mediating capacity of material form. While ontological design has so far been applied predominantly to cities in Latin America and postcolonial contexts, this paper tests its analytical reach in a European setting shaped by the enduring legacy of Modernist planning and, more recently, by austerity and ecological pressure. Through qualitative, interpretive analysis, the study shows that spatial autonomy arises within institutional structures rather than against them, mediated variously by law, procedure, technology, property, and project governance. Non-human agency emerges as one constitutive thread among others rather than the defining feature of hybrid urbanism, while materiality consistently operates as an active mediator rather than a passive outcome of design intent. The comparative analysis further surfaces the risks of co-optation and precarity inherent in such hybrid configurations, positioning design as a world-making practice with ecological and political consequences.

1. Introduction

Contemporary cities take form through a dynamic interplay of planned and unplanned processes. This interplay is frequently framed as a binary: formal planning is associated with normative design, while unplanned processes are associated with emergent, informal, or spontaneous practices (Klosterman, 1978; Lehmann, 2023). Within this binary, autonomous spatial appropriation—understood as the production and occupation of space beyond formal planning—tends to be reduced to spontaneous, human-centred action. As a result, it is difficult to account for the many urban spaces that are simultaneously planned and appropriated, designed and improvised, formal and unauthorised.

From an ontological design perspective, spatial autonomy is better understood as a relational, multi-agency, and more-than-human process grounded in interdependence, where professional expertise, everyday practices, and non-human actors all participate in shaping the urban fabric (Lopes, 2017; Nold, 2018). Contemporary urban practices demonstrate that spatial autonomy can emerge from hybrid processes in which intentionality and spontaneity combine into new forms of agency—configured through the interaction of planners, communities, institutions, materials, and species rather than reducible to any single one of them.

This paper examines the production of spatial autonomies through hybrid practices in contemporary European cities, using ontological design as its theoretical lens. The topic carries particular urgency

today, as multi-species modes of inhabitation and logics of care offer pathways toward more just and ecologically resilient urban futures. The European context is productive precisely because it concentrates tensions between rigid planning regimes and emerging autonomous appropriations, offering a field for testing frameworks that have been applied predominantly in the Global South.

Ontological approaches to urban studies have so far focused mostly on cities in Latin America and postcolonial contexts (Coletta and Raftopoulos, 2016; James, 2014; Escobar, 2017). Testing their validity in European contexts extends their analytical reach and demonstrates their relevance to places shaped by a different institutional and historical legacy—one marked by the enduring influence of Modernist planning, the growth of welfare state urbanism, and more recently by the pressures of austerity, migration, and ecological crisis.

Alongside this theoretical extension, the paper develops hybrid urbanism as an analytic for understanding cities as the ongoing, contested, and materially embedded outcome of the interaction between planned and unplanned processes, foregrounding the generative tension between design intentionality and emergent practice.

Informal settlements represent approximately one-third of total urban fabric globally (Samper et al., 2020), and habitat loss, climate change, and biodiversity decline have further complicated the planned/unplanned dichotomy that was central to Modernist urbanism (Rowe and Koetter, 1984). Cities are now complex socio-ecological systems shaped by human–non-human entanglements (Steele et al., 2019), with urban environments constituting key sites for multispecies coexistence (Lorimer, 2015). These pressures expose the limits of comprehensive control, yet an uncritical celebration of spontaneity risks obscuring the power asymmetries embedded in informal processes.

Several scholars have mapped intermediary conditions between planning poles—from Habraken's (1987) overlapping fields of control to Debray et al.'s (2023) 'intensity of plannedness' metric applied to 381 urban settlements—but these frameworks tend to focus on institutional mechanisms rather than the relational processes through which space is actually co-produced. Building on these positions, this paper pursues three interconnected dimensions underexplored in the existing literature: the mediation between autonomy and governance; the situated nature of more-than-human practices; and the materiality of hybrid geographies. Five case studies are examined across five decades and five distinct European governance traditions: Christiania in Copenhagen, Parc de la Villette in Paris, Hammarby Sjöstad in Stockholm, Granby Four Streets in Liverpool, and Boeren Brussels Paysans in Brussels.

The paper is organised as follows. Section 2 presents the theoretical framework. Section 3 describes the methodology. Section 4 presents the five case studies. Section 5 discusses cross-cutting patterns. Section 6 concludes.

2. Theoretical Framework

2.1 From Binary Categories to Hybrid Urbanism

The planned/unplanned dichotomy has deep roots in the Modernist project of urban design. Post-war reconstruction institutionalised centrally planned, comprehensive urbanism as the technically and morally legitimate approach to rebuilding European cities. Design reflected a 'mono-humanist' worldview (Wynter, 2015; Escobar, 2021) that cast professional designers as authoritative producers of urban quality and treated non-human species as decorative or functional elements at best. Jane Jacobs demonstrated in 1961 that urban vitality depends on forms of complexity and layering that comprehensive planning suppresses, yet many of its core assumptions—anthropocentrism, the primacy of professional expertise, the distrust of spontaneity—have persisted into contemporary practice. The planned/unplanned dichotomy thus operated as an ontological claim: the city as a space to be ordered by rational expertise, rather than as a plural ecology shaped by multiple human and non-human agencies.

Hybrid urbanism, as developed in this paper, names an analytical frame that can hold these tensions. It describes the city as the contested and emergent result of the ongoing interaction between planned and unplanned processes—configured by planners, communities, institutions, materials, and non-human actors rather than reducible to any one of these. The term 'hybrid urbanism' has been used in the literature to describe quite different phenomena: in some cases it refers to the production of identity through the encounter of cultures in the built environment (AlSayyad, 2001), in others to the emergence of hybrid digital-physical spaces enabled by mobile and networked technologies (de Souza e Silva, 2006), and in others still to the coexistence of formal planning and informal urban practice in cities of the Global South. The present paper uses the term in a more specific and analytically bounded sense. What distinguishes the concept as developed here from adjacent frameworks such as tactical urbanism, urban commoning, or assemblage urbanism is a particular insistence on three features taken together, not singly. First, the constitutive and generative character of the tension between planned and unplanned elements: it is the friction between them, not the informal element alone, that produces the spatial qualities under examination. Second, the incorporation of non-human actors as one component within a wider relational field of production. Third, the active role of material form as mediator rather than mere outcome. None of the adjacent frameworks emphasises all three simultaneously. The concept draws on assemblage thinking (Tsing, 2015), which foregrounds the contingency and multiplicity of urban processes, and on informality studies, which have documented adaptive and resilient practices that emerge outside formal planning. It goes further than either by insisting on the generative interdependence of planned and unplanned elements as the primary site of urban production, and by treating materiality and non-human agency as structural rather than supplementary dimensions of that process.

2.2 Ontological Design and the More-Than-Human City

Ontological design, as articulated by Willis (2006), provides the theoretical foundation for this paper. Willis argues that design is a 'double movement': in designing the world, the world designs us back. The built environment actively shapes the subjectivities, practices, and ways of life of those who inhabit it. This has direct implications for spatial autonomy: communities that appropriate and reshape urban

spaces are world-making practices in their own right, producing new conditions and new ways of life. Escobar (2018) calls this 'autonomous design': practice oriented toward more just, relational, and ecologically embedded forms of life. His concept of the pluriverse—a world in which multiple ontologies coexist on their own terms—has been developed primarily in relation to indigenous and postcolonial communities in the Global South (Coletta and Raftopoulos, 2016; James, 2014; Escobar, 2017), but its implications extend to any context in which dominant planning regimes marginalise alternative modes of inhabitation.

A broader literature challenges anthropocentrism in urban theory: Hinchliffe and Whatmore (2006) showed that cities are assemblages in which non-human species participate in the production of urban form; Lorimer (2015) demonstrated that urbanisation transformed the concept of 'wildlife'; Tsing (2015) argued that multispecies assemblages are constitutive of modern life in ways planning discourse typically fails to register.

These arguments converge on a shared insight. The urban environment is a multispecies production, and any adequate theory of spatial autonomy must account for the agency of non-human actors. More-than-human urbanism is both an empirical condition and a normative orientation. It calls for modes of design and planning that actively support multispecies cohabitation and that acknowledge the capacity of non-human species to claim and shape urban space. Yet non-human agency is not the only key to hybrid urbanism, nor does it operate in a single way. The five cases examined in this paper demonstrate that more-than-human practices operate at different intensities and through different logics in different contexts: sometimes centrally planned, sometimes wholly emergent, sometimes barely legible at all. What they share is not the centrality of non-human agency but rather its presence as one constitutive thread within a broader weave of governance structures, material forms, and community practices. The more-than-human dimension matters, and it has been systematically undertheorised in the urban design literature; but its analytical value in this paper lies precisely in being held alongside, rather than above, the other two dimensions of the framework.

2.3 Metrofitting and the Politics of Urban Transition

The concept of metrofitting, developed by Fry (2014) and elaborated by Escobar (2022), provides a third theoretical resource. Metrofitting names the project of reimagining cities as adaptive ecologies oriented toward what Fry calls 'sustainment'—the maintenance and reproduction of conditions for life across species, over time. It is a political and ontological project as much as a technical one: a rethinking of the city as a site of communal interdependence rather than individual competition or consumption.

Metrofitting aligns with and extends the concept of hybrid urbanism developed here: where hybrid urbanism describes the analytical condition of cities produced through the interaction of planned and unplanned processes, metrofitting names a normative horizon—what such cities could become if their hybrid character were oriented toward sustainability, equity, and multispecies flourishing. Together, ontological design, more-than-human urbanism, and metrofitting share a commitment to relational

thinking, a critique of anthropocentrism, and the conviction that urban design is a world-making practice rather than merely the arrangement of a pre-given city.

3. Methodology

This study adopts a qualitative and interpretive methodology, organised around five case studies and anchored in ontological design as its primary analytical frame. The three analytical dimensions—the mediation between autonomy and governance, situated more-than-human practices, and the materiality of hybrid geographies—were established from the theoretical framework set out in Section 2 and used to structure both case selection and analysis. This is a deliberate methodological choice. Theory-building research of this kind operates through a different logic than hypothesis-testing: its purpose is to develop a framework capable of capturing relational complexity across diverse contexts, and to test whether that framework generates new analytical insight when brought into contact with empirical material. The three dimensions function as interpretive lenses rather than variables to be measured, and their value is demonstrated but by the differentiated and sometimes contradictory ways in which they are expressed across five distinct governance traditions and historical moments. This mode of inquiry has a productive track record in urban and architectural theory—it is the logic through which concepts such as the right to the city, tactical urbanism, and urban commoning have been developed and extended—and it is well suited to a field where the phenomena under study resist reduction to measurable outcomes. The comparative breadth of the case selection is what gives the framework its generative potential: five cases spanning five decades and five governance traditions produce findings that would not be available from any single case or from a narrower comparative design.

The methodological design is explicitly interpretive, integrating documentary analysis, secondary literature review, and theoretical interpretation. Case selection was guided by three criteria: each case needed to manifest productive tensions between autonomy and governance; to integrate more-than-human practices into its spatial logic; and to exhibit material hybridity—a physical fabric that reflects the interaction of different temporalities, uses, and agencies. The cases span from Christiania (est. 1971) through Parc de la Villette (masterplan 1983), Hammarby Sjöstad (1990s), Granby Four Streets (CLT formation 2011), to Boeren Brussel Paysans (2015–2023)—covering Denmark, France, Sweden, the United Kingdom, and Belgium, and representing liberal-social democratic, étatist, Nordic, Anglo-liberal, and consensus-pluralist governance traditions.

The absence of direct fieldwork is an acknowledged limitation of this study. Without primary ethnographic data, the analysis relies on published documentation, architectural and planning reports, peer-reviewed academic literature, and, where relevant, grey literature produced by the projects themselves. This creates potential for interpretive bias and may not capture undocumented dynamics. The selection of five cases cannot represent the full diversity of European urban contexts; shrinking cities, rural-urban fringes, and post-austerity peripheries are underrepresented. These limitations are consistent with the theoretical focus of the paper: the goal is to develop and substantiate a conceptual framework that can be applied and tested in future research, including through primary fieldwork.

4. Case Studies

4.1 Christiania, Copenhagen (1971–present)

4.1.1 Context and Configuration

Christiania is a self-declared autonomous community occupying approximately 34 hectares of former military land in the Christianshavn district of Copenhagen. Founded in 1971 when a group of squatters occupied the abandoned Bårdsmandsstræde Barracks, the community developed its own governance structures, housing arrangements, and spatial practices over the following decades, establishing itself as one of the longest-running and most extensively documented experiments in urban autonomy in the world. The community is home to around 900 permanent residents and has long attracted millions of visitors annually.

Christiania's existence has always been defined by negotiation with the Danish state. Since the 1970s, it has oscillated between periods of open conflict, partial tolerance, and attempted normalisation. The most recent significant legal development came in 2011, when a law was passed enabling Christiania to purchase its land from the state through a specially created fund, the Fonden Freetown Christiania. This partial regularisation stabilised the community's legal status while preserving a degree of collective autonomy, constituting what Habraken (1987) would recognise as an institutionalised field of community control sitting alongside but distinct from the formal planning system.

4.1.2 Hybrid Governance

The governance of Christiania is organised through community assemblies operating by consensus, without formal elected leadership. This model of direct democracy has enabled collective autonomy in spatial decision-making while creating tensions around accountability and common resources. The relationship with the Danish state has produced a distinctive hybrid: the Fonden Freetown Christiania holds property rights on behalf of the community, enabling institutional negotiation while preserving self-management. Even radically autonomous spaces, Christiania demonstrates, operate within and are shaped by broader institutional frameworks.

4.1.3 More-Than-Human Practices and Materiality

Decades of community-led landscape management have produced a richly biodiverse environment, with unmown meadows, self-seeded trees, and unmanaged waterway edges supporting habitats for birds, insects, and small mammals largely absent from the surrounding urban fabric (Andersson et al., 2007). The materiality of Christiania is equally distinctive: buildings range from converted military structures to self-built timber-frame houses and earthen dwellings, holding multiple temporalities in productive tension. Willis's (2006) concept of the world-making character of material form is perhaps nowhere more legible in European urbanism than here.

4.1.4 Tensions and Limitations

Christiania faces a structural tension between its identity as a radical autonomous community and the pressures toward normalisation that come with legal stabilisation. The 2011 purchase agreement, while securing the community's physical presence, required the acceptance of certain state conditions that constrain the range of permissible activities. Drug sales, which had been openly tolerated for decades in the Pusher Street area, were banned following episodes of gang violence in 2016. The community's capacity to absorb and resolve internal conflicts without external institutional intervention remains a source of both resilience and fragility. As Escobar (2018) argues, autonomous design must navigate the tension between the desire for radical self-determination and the need for external recognition that secures the conditions for that self-determination.

4.2 Parc de la Villette, Paris (1983–present)

4.2.1 Context and Configuration

Parc de la Villette occupies the former abattoirs site in Paris's 19th arrondissement (55 ha), designed by Bernard Tschumi following an international competition won in 1983. Tschumi's organisation of the park into three autonomous systems—points (the red follies), lines (covered walkways), and surfaces (large programmatic areas)—was intended to prevent any single programme from dominating and to produce an environment in which unexpected uses could emerge. This design philosophy, embodying his concept of 'disjunction', makes the Villette a key reference for the concept of hybrid urbanism developed in this paper.

4.2.2 Hybrid Governance

The park is governed by La Villette, a public institution under the French Ministry of Culture, which provides stability but also imposes programming constraints that tension with the spirit of openness in Tschumi's design. In practice, the park accommodates a wide range of unprogrammed uses—music festivals, circus, informal appropriation of the follies—exemplifying what Manzini (2015) calls 'diffuse design': the distribution of design agency across professional designers, institutional managers, and a diverse public. The institutional framework enables these appropriations without fully determining them.

4.2.3 More-Than-Human Practices and Materiality

The park's large grassed surfaces have become habitats for urban wildlife, and the deliberate avoidance of a unified horticultural scheme has allowed ecological spontaneity to develop in the margins: the edges of walkways, the bases of the follies, and transition zones between surfaces support self-seeded vegetation and associated ecologies. The red follies—twenty-six identical abstract structures on a 120-metre grid—resist resolution into conventional architectural meaning, and their openness to appropriation makes them participants in material world-making in Willis's (2006) sense: they have been designed, but they continue to be designed by the uses attributed to them over decades of inhabitation.

4.2.4 Tensions and Limitations

The primary tension in the Villetta case is between the radicalism of Tschumi's theoretical premises and the institutional reality of a publicly funded, professionally managed urban park in central Paris. The park operates within a governance framework that prioritises safety, maintenance, and the management of large public events—conditions that progressively reduce the degree of openness that was central to the original design concept. The more experimental potential of the park's spatial organisation has been partly domesticated by institutional management. This illustrates a broader risk of architectural indeterminacy when it is embedded in conventional institutional frameworks: the spatial openness survives, but the radical theoretical programme that gave it meaning is attenuated.

4.3 Hammarby Sjöstad, Stockholm (1990s–present)

4.3.1 Context and Configuration

Hammarby Sjöstad is a large urban regeneration project developed on former industrial and port land on the southern shore of Lake Hammarby, approximately three kilometres from central Stockholm. Planning began in the mid-1990s, initially as a candidate site for the 2004 Olympic Games; following Stockholm's unsuccessful Olympic bid, the project proceeded as a mixed-use urban district targeting high environmental standards. The district now accommodates approximately 25,000 residents and 10,000 workers in a fabric of mid-rise residential and commercial buildings set within an extensive network of public spaces, waterways, and green infrastructure.

Hammarby Sjöstad is widely studied as a model of ecological urban development, with an integrated environmental management system—the Hammarby Model—that coordinates energy, water, waste, and transport flows across the district. The project has been extensively evaluated in the academic literature, with studies documenting both its ecological achievements and the social dynamics that have shaped its development (Andersson et al., 2007).

4.3.2 Hybrid Governance

The governance of Hammarby Sjöstad followed a conventional Swedish model: the City of Stockholm acted as both landowner and planning authority, selling individual parcels to private developers within detailed design guidelines. Community participation grew as the district developed, with residents' associations taking active roles in ecological management—embedding a form of collective stewardship that resonates with Manzini's (2015) argument that design for social innovation must sustain collective agency over time rather than make community action unnecessary.

4.3.3 More-Than-Human Practices and Materiality

The ecological dimension of Hammarby Sjöstad is the most systematically planned of the five cases. The waterway network was designed to support aquatic biodiversity as well as manage stormwater; green roofs, bioswales, and planted building edges provide habitat for insects, birds, and small mammals, with measurable increases in biodiversity documented relative to the pre-development industrial site (Andersson et al., 2007). The palette of materials—brick, concrete, timber cladding—and

the typology of mid-rise perimeter blocks produce design coherence that enables legibility but also reduces the material openness that has allowed ecological spontaneity and community appropriation to develop in the other cases examined here.

4.3.4 Tensions and Limitations

The most significant limitation of Hammarby Sjöstad as a model of hybrid urbanism is the social composition of its population. Despite the ambitions of the original planning framework, the district has attracted a predominantly affluent population, and housing prices have risen substantially above the Stockholm average. This dynamic reflects the structural challenge identified in the literature on green urbanism: high-quality ecological environments tend to attract investment and population that progressively exclude lower-income residents (Samper et al., 2020). The ecological achievements of the district are real, but they are embedded in a social structure that undermines the equity dimension of sustainable urbanism. The absence of mechanisms for community land stewardship—of the kind developed in the Granby and Brussels cases—has made the district's ecological and social capital susceptible to capture by real estate markets.

4.4 Granby Four Streets, Liverpool (2011–present)

4.4.1 Context and Configuration

Granby Four Streets is a community-led urban regeneration project in the Toxteth area of Liverpool, centred on four Victorian terraced streets that survived decades of managed decline and demolition. Following the Toxteth riots of 1981, Liverpool City Council acquired most of the housing in the area for planned clearance; demolition proceeded in waves through the 1980s and 1990s, reducing the neighbourhood to a fragment of its former fabric. A small group of long-standing residents refused to leave, and from the early 2000s began a process of gradual, self-organised improvement: clearing the streets, planting flowers, painting the boarded-up houses, and establishing a monthly street market.

In 2011, the residents formalised their activity by establishing Granby Four Streets Community Land Trust (CLT), an institutional form that enabled the community to take on ownership of empty properties and to develop them for affordable use. The CLT subsequently entered into collaboration with the architectural collective Assemble, which contributed design and construction expertise to the renovation of ten properties on Cairns Street, the establishment of the Granby Workshop ceramics enterprise, and the design of the Granby Winter Garden, a community space and artist residency. The project won the Turner Prize in 2015—the first time the award had been given to an architectural collective—bringing significant public attention to the model (Thompson, 2015).

4.4.2 Hybrid Governance

The governance of Granby Four Streets is structured around the CLT, a form of community land ownership that removes land from the speculative market and holds it in perpetuity for community benefit. Thompson (2015) documents the development of the CLT in detail, showing how it emerged

from a long history of grassroots community organising that preceded the formal institutional structure by decades. The guerrilla gardening and street improvement activities that preceded the CLT were themselves a form of governance: informal acts of collective stewardship that established community claim to the streets and built the social capital necessary for the subsequent institutional development.

The relationship between the CLT and Liverpool City Council has evolved from conflict to partial collaboration, with the Council transferring properties to the CLT as an asset transfer in 2012. This trajectory—from informal occupation to formal asset transfer—represents a form of institutional hybridisation in which community autonomy is progressively formalised without being domesticated. The CLT structure provides legal security and access to finance while preserving the community's control over land use decisions, creating a governance arrangement that mediates between informal community practice and formal institutional requirement.

4.4.3 More-Than-Human Practices and Materiality

The guerrilla gardening practices that have characterised Granby from its early stages have created microhabitats supporting pollinators and urban wildlife in a neighbourhood otherwise lacking green space (Andersson et al., 2007). The materiality of the project is equally significant: the Victorian terraced houses have been incrementally restored rather than comprehensively refurbished, with Assemble embracing imperfection, exposed structure, and the visible evidence of the buildings' history. This approach—described by Assemble as working 'with' rather than 'against' the existing material condition—demonstrates Willis's (2006) understanding of material world-making: the buildings participate in defining what is possible within them.

4.4.4 Tensions and Limitations

The primary tension in the Granby case is between the project's success as a model of community-led regeneration and the risk that this success will attract the investment and population pressures that have displaced similar initiatives elsewhere. The Turner Prize and associated media attention brought resources and recognition but also increased the area's visibility to property speculators. Thompson (2015) documents the 'double role' of such projects in the context of austerity urbanism: they represent genuine community empowerment and creative urban practice, but they also fill gaps left by the retreating state in ways that can ultimately serve the interests of capital rather than those of long-term residents. The CLT structure provides significant protection against this dynamic, but it is not immune to it.

4.5 Boeren Bruxsel Paysans, Anderlecht, Brussels (2015–2023)

4.5.1 Context and Configuration

Boeren Bruxsel Paysans (BBP)—the name means 'Brussels Peasant Farmers' in both Dutch and French—was a pilot project developed between 2015 and 2023 in the peri-urban fringe of Anderlecht, the Brussels

municipality with the largest share of agricultural and semi-agricultural land within the Brussels-Capital Region. The project was conceived by a consortium of four civil society organisations and two public administrations, co-financed by the European Regional Development Fund and coordinated by Bruxelles Environnement, the regional environmental agency. Its primary sites were located in Neerpede and the Vogelzang valley, areas characterised by a mosaic of agricultural plots, residual green spaces, and urban fringe development.

BBP's stated ambition was to demonstrate the viability of small-scale, agroecological food production in an urban and peri-urban context, and to develop institutional mechanisms—the 'Espace-test agricole' (agricultural test space)—that could support new farmers in establishing viable operations within the Brussels food system. The project operated on communal land obtained through a formal agreement with the Municipality of Anderlecht, establishing a form of co-governance between public landowner, regional funder, and community practitioners.

4.5.2 Hybrid Governance

The governance of BBP has been analysed by Manganelli and Moulaert (2019) through their concept of 'hybrid governance': a productive but often difficult interaction between community-oriented civil society partners, municipal land management constraints, European funder accountability requirements, and the practical needs of individual farmers. The test-space model—short-term tenancies alongside mentorship and shared infrastructure—was an institutional innovation that emerged from the specific constraints of the Brussels context, neither a conventional public agricultural programme nor a pure community initiative (Manganelli and Moulaert, 2018).

4.5.3 More-Than-Human Practices and Materiality

The agroecological practices at BBP represent the most explicit expression of more-than-human urbanism among the five cases. Soil organisms, pollinators, mycorrhizal networks, weather systems, and the ecological characteristics of specific plots are all active participants in food production and in the constitution of the farm as spatial and social entity. The participatory approach to land management—involving farmers, community members, and researchers in ongoing observation of ecological conditions—exemplifies the situated more-than-human practice that Tsing (2015) identifies as the basis for alternative economies of care. The materiality of the BBP sites layers agricultural, industrial, and urban histories: renovated farm buildings alongside improvised polytunnels, restored wetlands alongside remnant industrial structures. The specific topography and hydrology of the Vogelzang valley shaped the spatial organisation of the test farm in ways no design intent could fully anticipate. The landscape, in Willis's (2006) terms, designed back.

4.5.4 Tensions and Limitations

The conclusion of BBP as a pilot project in 2023 raises important questions about the sustainability of hybrid governance arrangements that depend on project-based funding. Manganelli and Moulaert (2019) document that the institutional architecture of BBP was designed to be temporary and experimental: the

test-space model was intended to generate learning that would inform more permanent institutional arrangements rather than to provide indefinite support for farming activity. The degree to which the pilot has succeeded in producing durable institutional change within the Brussels food governance system remains to be assessed. The dependency on European funding created accountability structures that sometimes tensioned with the community-oriented values of the civil society partners, illustrating the broader risk that hybrid governance arrangements may reproduce the power asymmetries they seek to overcome.

5. Discussion

5.1 Hybrid Urbanism as Analytical Lens

The five case studies collectively substantiate hybrid urbanism as a framework with a distinct contribution to architectural and urban theory. Assemblage theory (Tsing, 2015) provides tools for understanding contingency but does not theorise the interaction between planned and unplanned elements. Informality studies (Samper et al., 2020; Lehmann, 2023) document adaptive practices outside formal planning but position informality as the negation rather than the entanglement of planning. Adaptive planning frameworks (Cozzolino, 2020; Debray et al., 2023) theorise gradients between planning poles but focus on institutional mechanisms rather than relational processes of co-production. The framework here insists on the generative tension between planned and unplanned processes, incorporates non-human agency as a structural dimension, and treats material form as active mediator rather than mere outcome. The comparative method makes these claims visible: Christiania shows how radical autonomy survives through selective institutional negotiation; La Villette that architectural indeterminacy generates appropriations no programme could anticipate; Hammarby Sjöstad that planned ecological design is susceptible to real-estate capture without community land stewardship; Granby that CLT structures can institutionalise autonomy without domesticating it; BBP that project-based hybrid governance can innovate institutionally but remains precarious when funding ends. No single governance or design form is inherently more likely to sustain productive tensions: what matters is the specific configuration of institutional context, material form, and community capacity in each case.

5.2 Three Analytical Dimensions

. Each case study offers a different perspective on the three dimensions introduced in Section 1.

The mediation between autonomy and governance is institutionally constituted through law (Christiania), procedure (La Villette), technology (Hammarby), property (Granby), and project governance (BBP)—confirming that hybrid urbanism is a family of practices shaped by specific institutional contexts (Habraken, 1987) rather than a replicable model.

The more-than-human dimension shows the greatest variation across cases, and this variation is analytically significant. Hammarby Sjöstad and BBP represent the most explicitly planned integration of non-human agency. Christiania and Granby represent more emergent expressions, where community

spatial management has produced ecological richness not by design but constitutive of each site's character. La Villette is intermediate, where the avoidance of unified programming has allowed ecological spontaneity at the park's margins. This variation confirms that the more-than-human dimension is one constitutive thread within a wider weave of governance, material form, and community practice rather than a defining feature of hybrid urbanism. What the cross-case analysis establishes is that non-human agency tends to be enhanced by the uncertain, indeterminate character of hybrid spaces: the conditions that support it—material openness, governance flexibility, reduced professional control—are the same conditions that support other forms of community spatial autonomy. The three dimensions are mutually reinforcing without any one being hierarchically prior.

The materiality of hybrid geographies is the dimension that most clearly distinguishes the analytical contribution of hybrid urbanism from adjacent theoretical frameworks. In all five cases, the material fabric of the site plays an active role in mediating the interaction between planned and unplanned elements. The self-built structures of Christiania, the follies of La Villette, the waterway edges of Hammarby Sjöstad, the Victorian terraces of Granby, the peri-urban agricultural plots of Anderlecht—each embodies histories and temporalities that persist alongside and shape the intentions of those who currently inhabit them. In Willis's (2006) terms, these material fabrics 'design back': they participate in the constitution of the spatial practices and social relations that unfold within them.

5.3 Extending Ontological Design to the European Context

Ontological design frameworks have been applied predominantly in the Global South, where encounters between formal planning and indigenous or community-led practices are most acute (Coletta and Raftopoulos, 2016; James, 2014; Escobar, 2017). The five European cases demonstrate that these frameworks are productive in very different institutional contexts. The communities here are not negotiating postcolonial difference but alternative modes of inhabitation within and against the legacy of Modernist urbanism: defending spatial practices that express solidarity, ecological care, self-governance, and cultural experimentation against dominant planning frameworks. Reading them through ontological design illuminates dimensions of practice that planning-centred or social-movement-centred frameworks miss. The cases where the more-than-human dimension is most explicit—BBP and Hammarby Sjöstad—are also those where governance is most explicitly oriented toward ecological transition, suggesting that the framework is most productive when all three dimensions are mutually reinforcing.

5.4 Power, Limits, and the Risks of Hybrid Urbanism

The five case studies reveal not only the generative potential of hybrid urbanism, but also its risks.

Co-optation takes different forms across the cases: in Christiania, legal stabilisation has progressively reduced the community's capacity for radical self-governance; in La Villette, institutional management has attenuated the original experimental character; in Hammarby Sjöstad, ecological achievements have been partly captured by real estate capital; in Granby, the CLT model risks being appropriated as a formula for austerity urbanism; in Brussels, European funding accountability reproduced some of the

institutional logics the project sought to challenge. Precarity is most acute at the informal end of the continuum, and BBP's closure as a pilot in 2023 raises the question of what becomes of institutional innovations when funding ends. These risks indicate that hybrid urbanism is not automatically progressive: whether its productive tensions generate spatial justice and ecological resilience or co-optation and exclusion depends on specific power dynamics and on institutional frameworks that support community autonomy without domesticating it (Escobar, 2018).

6. Conclusion

This paper has examined the production of spatial autonomies in contemporary European cities through the lens of ontological design and five case studies. The analysis identifies recurring patterns across three analytical dimensions—the mediation between autonomy and governance, situated more-than-human practices, and the materiality of hybrid geographies—substantiating the concept of hybrid urbanism as a theoretical framework that moves beyond binary categories of planning and spontaneity. The paper's contribution is threefold: it develops hybrid urbanism as a distinct analytical lens; it extends ontological design frameworks to European urban contexts; and it positions more-than-human agency as one constitutive dimension of hybrid urban production rather than its defining feature. The comparative method produces findings that would not be available from single-case research. The different mediations of autonomy and governance—through law, procedure, technology, property, and project governance—demonstrate that hybrid urbanism is a family of practices rather than a single model, and that no single form is inherently more likely to sustain productive tensions over time.

For practice, the findings suggest a reorientation of design intention: from the control of outcomes to the creation of conditions, from finished objects to enabling frameworks. Spatial autonomy requires material openness—residual spaces, hybrid programmes, improvised additions—that standard development processes rarely produce. Cultivating such openness is a design skill. The cases also suggest that institutional design is as important as spatial design: the CLT model in Granby, the consortium governance in Brussels, and the purchase agreement in Christiania all demonstrate that spatial autonomy requires institutional as well as architectural innovation. Further research should extend the framework to shrinking cities, post-austerity peripheries, and rural-urban fringes, and develop primary fieldwork to investigate the relational and more-than-human dimensions empirically rather than through secondary sources.

Hybrid urbanism keeps open the question of what urban environments can become—and of who and what participates in that becoming. In a moment when European cities face growing ecological, social, and political pressures, this openness is among the field's most productive resources.

Declarations

Author Contribution

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