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Logistification and the Typo-Logistic City: Rethinking Infrastructure, Housing and Design in European SEZs

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This paper presents the outcomes of an applied research project currently underway at the Department of Engineering and Architecture, University of Trieste, focused on the design and theorization of Special Economic Zones (SEZ) as spatial and architectural devices. Starting from the cross-border SEZ of Gorizia–Nova Gorica (ITA-SLO), the study proposes a broader critical framework for understanding the ongoing logistification of the European space – a process in which logistics becomes a morphogenetic force shaping infrastructures, territories, and ways of living. Rather than treating SEZ as merely economic or regulatory constructs, the paper explores their potential as inhabited infrastructures and urban laboratories where housing, production, and flows intersect. The concept of highwaying is introduced as a design method to reinterpret road infrastructures as relational and habitable structures. A projective lexicon – "thickness, edge, path, interface" – is deployed to guide the rethinking of infrastructural architecture and urbanism. Through theoretical insight and a multiscalar case study methodology, the paper outlines a vision of SEZ as hybrid territories of architectural experimentation, where spatial quality, logistical performance, and social inclusion are not mutually exclusive, but co-constitutive.

Introduction: "*Logistification* and Infrastructure Space"

Topics and Sites for Operational Research

The research presented in this paper is part of a project developed at the Department of Engineering and Architecture of the University of Trieste and started in 2023 by the CARIGO Foundation. Titled *ZESE GoNGO – Zona Economica Speciale Europea at Gorizia Nova-Gorica*, the project investigates the architectural and territorial potential of Special Economic Zones[1] (SEZ), using as a case study the regeneration of several areas located between Gorizia and Monfalcone. In particular, it focuses on the southern sector of Gorizia, which includes the Duca d'Aosta airport complex, the productive area along the Isonzo River, several residual zones interlocked between two major infrastructures crossing the Gorizia territory (the Trieste - Udine railway line and the Villesse - Ljubljana international

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1. SEZ (Special Economic Zones) are designated territorial areas where favorable tax, customs, or regulatory regimes are applied with the aim of attracting investment and promoting productive and logistical development. Within the European context, SEZs take on a strategic dimension, functioning as operative interfaces between global networks and local contexts. As in the case study of the cross-border ZESE of Gorizia and Nova Gorica presented here, they are configured as innovation ecosystems capable of integrating logistics, infrastructure, manufacturing, and urban reuse - becoming true devices for urban and infrastructural intensification.

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highway, which connects to the A4 Trieste - Venice corridor), and multiple zones of the COSEVEG (Consortium for Economic Development of Venezia Giulia). This "diffused" territorial system (sprawltown) is conceived as a new cross-border node for innovation.

The research is configured as an operational laboratory: it engages with a real context while exploring broader questions concerning the transformation of contemporary urban space. In particular, it focuses on the concept of *logistification*, understood as the extension of the logistics paradigm to the built environment, and its ability to redefine settlement forms and modes of inhabitation (Figure 1).

This work continues a line of research initiated between 2019 and 2021 by Adriano Venudo, Claudio Meninno, and Giovanni Fraziano, culminating in the publication *Evoluzione di un territorio. Architettura e infrastruttura*,[2] and now expanded through the involvement of Vittoria Umani and Thomas Bisiani. The new phase of research interprets infrastructure not merely as a technical support, but as a spatial device capable of generating territorial hierarchies and new "working landscapes". Following Keller Easterling's theories, *infrastructure space* is understood as an operational matrix governed by standards and protocols, capable of transforming traditional project logics.

Across Europe, TEN-T corridors, logistics platforms, and SEZ are progressively redrawing productive geographies, giving rise to new forms of centrality that emerge on the margins of compact cities. These hybrid territories – such as the cross-border logistics area of Gorizia and Nova Gorica – demand a revision of theoretical and design tools. The emerging forms – intermodal platforms, container villages, automated centers – are often "architecture without architects" that nonetheless deeply shape the landscape.

The design hypothesis at the core of this research considers the SEZ not only as economic devices, but as a spatial interface between global networks and local contexts. The proposal presented here is based on a multiscalar reading capable of intertwining logistical, residential-settlement, historical, and cultural dimensions. The strategic regeneration of the two aforementioned areas (Gorizia and Monfalcone) fits into a broader vision that brings together logistics, mobility in its larger sense, production, habitation, and innovation, redefining the relationship between design and infrastructure.

The paper is structured into sections that begin with the theoretical framing of *logistification*, followed by its operational applications, and culminating in the analysis of the case study as an experimental and applicative model of territorial transformation across multiple scales.

2. C. Meninno, *Evoluzione di un territorio. Architettura e infrastruttura. Strategie per uno sviluppo territoriale transfrontaliero in ambito europeo.* (Trieste: EUT, 2022), 186.

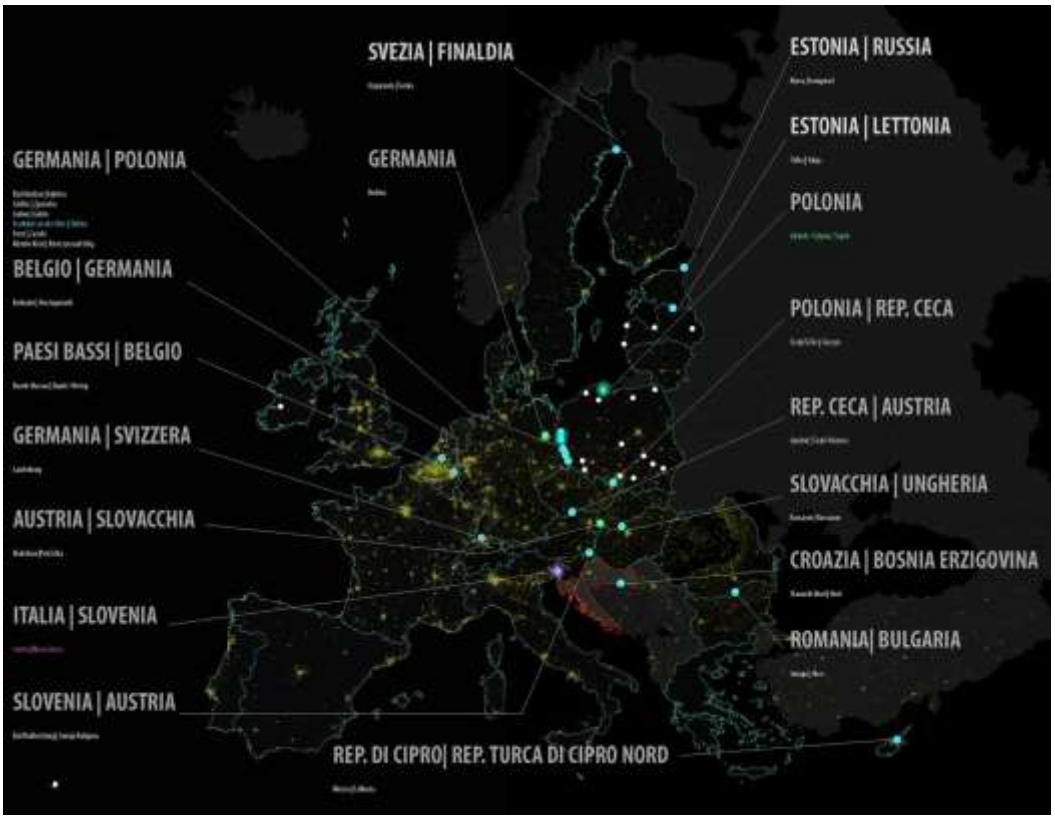

Figure 1. *European Mapping of SEZs Updated to 2022*
Source: Map created by A. Venudo, in Meninno, C., Evoluzione di un territorio. Architettura e infrastruttura. Strategie per uno sviluppo territoriale transfrontaliero in ambito europeo. (Trieste: EUT, 2022).

The Infrastructural City: From Architecture to Geography

The contemporary city has increasingly taken the form of an infrastructural city: a complex system in which logistics networks, transport systems, and productive platforms progressively replace the traditional ordering devices of the twentieth-century European city. TEN-T corridors, SEZ, and intermodal hubs are shaping a new geography that transcends national borders and defines centralities based on selective connectivity and functional proximity to global networks. Within this framework, centrality is no longer determined by position relative to the urban core, but by adherence to the logic of flows. SEZ thus become flexible tools of transformation, capable of operating at both local and continental scales, rewriting settlement rules in light of a new concept of proximity.

This research is based on the hypothesis that infrastructure is not merely a technical support, but an autonomous spatial matrix capable of generating new urban forms and relationships. Following Keller Easterling,[3] *infrastructure space* operates through protocols and standards, transforming territories into "active systems." Stefano Boeri and Rem Koolhaas had already, many years ago, in the

3. K. Easterling, *Extrastatecraft: The Power of Infrastructure Space.* (London-New York: Verso Books, 2014).

Mutations[4] and *USE*[5] projects, anticipated the idea of a "reticular urbanity" or "European sprawl town"[6] in which mobility and logistics form the primary fabric. This perspective is more relevant than ever, as the major European corridors – conceived in the 1980s as axes of linear efficiency – are now revealing limitations and contradictions that demand a critical rethinking of design tools.

From a methodological point of view, the research adopts a transdisciplinary and multiscalar approach. The road, the viaduct, the intermodal hub are no longer considered merely technical infrastructures, but generative devices that hybridize industrial areas, economic zones, functions, uses, and temporalities. Projects such as Koolhaas's *Dolphins*, MVRDV's *Flight Forum*, and NL Architects' *Parkhouse/ Carstadt* have long demonstrated how infrastructural sections can be transformed into dense and habitable urban spaces. These examples show how infrastructure can cease to be a line of division and instead become a site of design - capable of hosting new forms of urbanity, habitability, and everyday proximity.

The case study of the SEZ in Gorizia-Nova Gorica fits precisely within this perspective: not as a functional enclave, but as an open interface connecting transnational networks and local contexts. The methodology integrates cartographic analysis, scenario building, and design tools capable of addressing the logistical dimension as an unstable operational field that hybridizes infrastructure, production, and housing. This approach requires overcoming traditional binaries – inside/outside, ground/building, public/private – in order to conceive the city as a performative and adaptive system, where infrastructure acts as a principle of variation rather than a fixed framework.

The goal is to identify a design lexicon (developed specifically for this research, based on four key terms: "section, path, edge, interface") and strategies capable of combining *highwaying*[7] with productive efficiency and urban quality, transforming SEZ into laboratories for territorial and architectural innovation. In this direction, the "logic of the platform"[8] and the notion of infrastructure as a narrative and relational space become central tools to understand and design the contemporary landscape, forming the foundation of the concept of *logistification* (Figure 2).

4. R. Koolhaas, S. Boeri, S., S. Kwinter, N. Tazi & H.U. Obrist, *Mutations*. (Barcelona: ACTAR; Bordeaux: Arc en Rêve Centre d'Architecture, 2000).

5. Multiplicity (S. Boeri, et al.). *USE: Uncertain States of Europe*. (Milano: Skira, 2003).

6. R. Ingersoll, *Sprawltown*. (Roma: Meltemi, 2004).

7. The term *highwaying* was coined by SMAQ Architects, a Berlin-based practice founded by Andreas Quednau and Sabine Müller, active for many years in projects that hybridize spaces of movement with spaces of dwelling, using infrastructural spaces and structures as potential new domains of inhabitation.

8. Ibid, Easterling, 57.

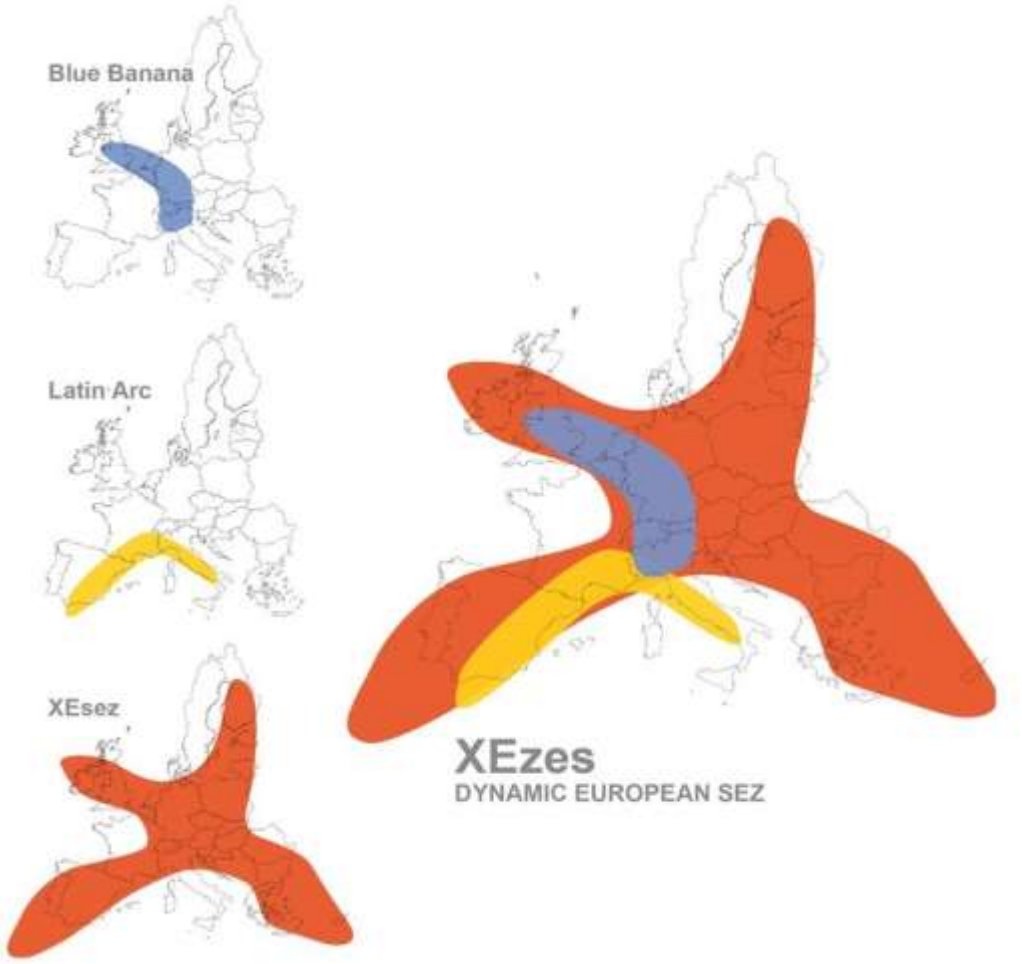

Figure 2. *Continental Urban Systems: Reconstruction of the "Geographical Figures" of the Main Existing European Settlement Systems Compared with the New "XEzes Geographical Figure" Derived from the European Mapping of SEZs, 2022*
Source: Map created by A. Venudo, in Meninno, C., Evoluzione di un territorio. Architettura e infrastruttura. Strategie per uno sviluppo territoriale transfrontaliero in ambito europeo. (Trieste: EUT, 2022).

Literature Review - *Logistification*: Toward a New European Logistics Space

Definition and Theoretical Framework

The term *logistification*, introduced by Jesse LeCavalier,[9] describes the systemic extension of the logistics paradigm from the management of flows to the production of urban and territorial space. LeCavalier highlights how automated environments and infrastructural interfaces have gained operational autonomy, becoming generators of new functional landscapes. Keller Easterling, through the concept of *infrastructure space*, proposes that logistics should be understood as a form of what she defines as "operational urbanism", where rules and protocols replace architectural form in

9. J. LeCavalier, *The Rule of Logistics: Walmart and the Architecture of Fulfillment.* (Minneapolis: University of Minnesota Press, 2016).

determining the spatial order of territory: "the space we move through" is composed more of codes than volumes.

Deborah Cowen[10] emphasizes how logistics constitutes a strategic infrastructure of global capitalism: it does not merely transport goods, but regulates labor, produces inequality, militarizes borders, and defines conditions of inhabitability. In this perspective, Marc Augé's famous *Non-lieu*[11] must be updated: logistics spaces are not just areas of transit, but operational environments governed by their own rules and dedicated to both productive and residential functions, generating a form of deterritorialized urbanity in which efficiency replaces density.

Logistification thus becomes both a critical and design category, one that forces us to rethink the thresholds of the city: infrastructural edges, mobile interfaces, and "abandoned" areas as newly active spaces. As Aureli[12] and Koolhaas[13] observe, this condition requires moving beyond traditional conceptions of urban space, calling architecture to account for its commercial, economic, and political responsibilities. In this framework, SEZ can be understood as operative fields where new design strategies can be tested – capable of intertwining flows, dwelling, and production.

Living in the Logistics Territories

The lack of coordination between production and housing within logistic territories is generating increasing urban and social criticalities. In Friuli Venezia Giulia (Italy), as in the major ports of Northern Europe, the housing demand linked to migrant labor – also affecting our case study – clashes with settlement models incapable of responding to temporary and adaptive needs. These are often seasonal flows, tied to the productive cycles of logistics platforms, which elude conventional planning frameworks.

Renzo Sgolacchia's PhD research[14] demonstrates how in the Netherlands, Belgium, and Denmark, prefabricated container cities have emerged to accommodate logistics workers: low-cost, precarious settlements devoid of integrated services – more tolerated than properly designed. These spaces, conceived as emergency solutions, reinforce marginality by transforming workers into "technical guests" devoid of urban citizenship.

Similar dynamics are evident in Friuli Venezia Giulia region: in Monfalcone, the presence of foreign workers in shipyards has saturated traditional housing supply, generating tensions between the historic center and the operative port areas. In Trieste, the coexistence of port, free zone, and hinterland logistics hubs produces

10. D. Cowen, *The deadly life of logistics. Mapping violence in global trade.* (Minneapolis: University of Minnesota Press, 2014).

11. M. Augé, *Non-Lieux. Introduction A Une Anthropologie De La Surmodernite: Introduction à une anthropologie de la surmodernité.* (Paris: Éditions du Seuil, 1992).

12. P. V., Aureli, *The Project of Autonomy: Politics and Architecture Within and Against Capitalism*. (New York: Temple Hoyne Buell Center for the Study of American Architecture & Princeton Architectural Press, 2008).

13. G. Mastrigli (edited, by), *Rem Koolhaas. Junkspace. Per un ripensamento radicale dello spazio urbano*. ((Macerata: Quodlibet, 2006).

14. R. Sgolacchia, *The Logistification of Migrant Workers' Housing: Understanding Flexibility and Scalability of Containerised Boxes*. PhD diss., Università Iuav di Venezia, 2023, XXXV Cycle, International PhD Program "Villard de Honnecourt", Supervisor: prof. Giuseppe Ciorra.

functional yet fragmented spaces, where production and habitation remain disconnected (Figure 3).

As Claudio Meninno[15] points out, it is precisely in the retroport areas that opportunities arise to experiment with new settlement models capable of integrating productive logics and housing needs. Without such a vision, we risk producing segregated territories, where the city withdraws and infrastructure prevails. Special Economic Zones (SEZ), if interpreted not solely as fiscal tools of deregulation and free-market within the "SEZ system," but as spatial devices, may become a framework for triggering new urban strategies – provided that housing is understood as a constitutive component of the overall design.

This perspective demands a rethinking of settlement policies: logistic dwelling can no longer be a collateral effect but must be foreseen and qualified. The transition from city to platform, if left unplanned, risks generating new operative peripheries and spatial exclusions.

Logistics expansion is reshaping habitation patterns, with informal and semi-regulated settlements emerging near logistics hubs due to proximity needs. This "strategic living" is adaptive and performance-driven, responding to logistics rhythms rather than traditional urban cycles. This condition is evident in several European contexts. In Piacenza, the growth of the IKEA/CEVA hub has transformed areas like Pontenure into sites of residential expansion, where small, often self-built structures emerge in response to irregular work schedules. Similarly, in Verona's Quadrante Europa, flexible and temporary housing clusters are forming at the edges of intermodal zones. In Lyon Saint-Exupéry, the CargoPort platform has generated a dispersed housing infrastructure made up of small, low-density settlements positioned along logistical junctions and roadways, where the relationship between commuting time and living time is particularly tight.

In light of this, the planning of new SEZ projects must confront the challenge of recognizing, interpreting, and engaging with these marginal forms of living. Rather than stigmatizing, planners and designers should see strategic living as both a symptom and a site of potential - spaces where emerging demands for proximity, adaptability, and urban quality begin to take shape.

15. C. Meninno, *Evoluzione di un territorio. Architettura e infrastruttura. Strategie per uno sviluppo territoriale transfrontaliero in ambito europeo*. (Trieste: EUT, 2022), 186.

Figure 3. *Photoplans of the Two Research Study Areas: on the Left, the Port of Monfalcone, and on the Right, the Cross-Border Intermodal Hub (Italy–Slovenia) of Gorizia–Nova Gorica*
Source: Eastern Adriatic Sea Port Authority; SDAG Gorizia, https://www.sdag.it/it/.

The European Expansion of *Logistification*

Logistification is radically reshaping the European landscapes, generating intermodal territories with high flow intensity. These spaces are arranged along the TEN-T corridors and are characterized by an urbanity based more on connectivity than on settlement density. In Friuli Venezia Giulia, Trieste and Monfalcone represent two emblematic cases. Trieste, located at the intersection of the Mediterranean and Baltic-Adriatic corridors, integrates port facilities, a free zone, and logistics platforms, under increasing residential pressure. The port of Trieste, ranked first in Italy for cargo traffic, handled 57.6 million tons in 2022, while the newly established regional Simplified Logistics Zone (ZLS) connects ports and freight terminals to promote a more integrated production system.

Monfalcone reveals a different aspect: the tension between industrial development and unplanned residential demand. Here, the presence of migrant labor, particularly from Bangladesh, has created housing needs that fall outside traditional urban models, resulting in precarious urban margins. The logistics platform of Friuli Venezia Giulia spans 26 municipalities and covers more than 1,400 hectares, with the goal of streamlining procedures and attracting investment. However, this production-focused logic risks generating fragmented, infrastructure-dominated territories in the absence of an urban plan that includes housing as a strategic component.

As highlighted by the research of Meninno and Cowen, the integration of logistics and urban space requires design tools capable of reconciling economic efficiency, settlement quality, and social cohesion. Without this, logistics risks transforming territories into functional platforms disconnected from their context. For this reason, planning must overcome the divide between productive and residential areas, embracing hybridity as a guiding principle.

These reflections are grounded in the studies of Easterling (*Extrastatecraft*), Cowen (*The Deadly Life of Logistics*), Boeri and Koolhaas (*Mutations*), Aureli (*The Project of Autonomy*), and in the experiences documented in *ZES. Spazi, strategie, progetti*, curated by Meninno.

Methodology and Case Studies: SEZ and New European Geographies

The XZES as a Continental City: Infrastructures and Spatial Visions

The XZES project – *eXtended ZES System*[16] – proposes an interpretation of Europe as an infrastructural, reticular, and discontinuous continental city. This is both a theoretical and operational figure, linking well-known geographical models (Blue Banana, Green Belt, Atlantic Arc) to a new logistics geography, and ultimately leading to definitions of architectural and urban layouts where spatial and functional intensity prevails over administrative continuity. Historic cities are progressively emptied of centrality, while peripheral areas reorganize around flows, generating asynchronous networks of productive and logistics clusters. These dynamic challenges the twentieth-century nation-state model, giving rise to so-called "functional regionalisms," interpreted as an "expanded new Middle Ages" in which special zones and logistics interfaces replace former capitals.

The methodology adopted in this research includes an updated screening of European SEZ (38 cases across 25 countries), analyzed according to functional and transcalar criteria; the creation of thematic maps at the continental scale (TEN-T corridors, multimodal platforms), the regional scale (Alpe-Adria), and the local scale (Friuli Venezia Giulia); the construction of morphological and flow maps based on freight transport data, intermodality, and settlement systems; and a cartographic visualization process inspired by the historic infrastructural mapping of Friuli Venezia Giulia.[17] To this is added a design phase for the cross-border SEZ of the Isonzo area, with architectural and urban projects currently being finalized between Gorizia and Monfalcone, aimed at creating a hybrid model that integrates infrastructure, logistics, and habitation.

Corridors, Logistics Platforms, and New Regionalisms: Approach and Tools

The methodology adopted investigates European *logistification* through the lens of TEN-T infrastructure programs, Green Corridors, and Simplified Logistics Zones (ZLS/SEZ). These infrastructures – such as the Baltic-Adriatic and Rhine-Alpine corridors – constitute supranational functional spaces governed by specific rules and differentiated fiscal regimes. The research explores how such platforms can integrate logistical efficiency with ecosystemic value, particularly by engaging with existing territorial figures such as the European Green Belt (the reactivated former Iron Curtain).

SEZ are analyzed as both spatial and regulatory tools capable of attracting investment and concentrating activities in marginal territories, while also offering design opportunities to reactivate disused areas and obsolete infrastructures. Through a multiscalar reading, they are interpreted as reticular governance platforms of a post-state nature, based on multi-level negotiation mechanisms.

16. A. Venudo, *Scenari XZes e riconfigurazione tra nodi e archi per la città continente*, in Ibid, Meninno, 106.

17. L. Di Sopra, *La struttura urbanistica friulana. Analisi e prospettive*. (Udine: Del Bianco Editore, 1967).

In summary, from a design perspective, the research focuses on the need to integrate logistics platforms into existing landscapes by mitigating their environmental impacts and restoring urban quality to infrastructural spaces, while developing the architectural theme of proximity. Following James Wines' concept of "Green Architecture", SEZ are reimagined as large-scale hybrid environmental architectures that combine technology, ecology, and a sense of place. This methodological approach aims to define operative tools for conscious design, capable of transforming logistics infrastructures from purely technical spaces into genuine "urban and environmental devices".

The "Moving Border" and the Alpe-Adria Macroregion: Methodology for the Applied Field

The research proposes the concept of the "moving border" as a methodological device for analyzing and designing the cross-border SEZ. Derived and adapted from the reflections of Marco Ferrari,[18] the "moving border" is interpreted here as a dynamic threshold – a space of territorial and design transition that goes beyond the administrative line to become a spatial and logistical device.

The Alpe-Adria macroregion (including Friuli Venezia Giulia, Carinthia, Western Slovenia, Croatia, and Hungary), originally formed as a zone of economic and social cooperation after the Cold War, today becomes a natural laboratory for testing new settlement models related to logistics and productive infrastructures. In this context, the overlap between infrastructural networks (TEN-T corridors), historical memory, and geopolitical dynamics generates an intermediate space that, from the peripheral, assumes a central role. In particular, the cross-border area of Gorizia-Nova Gorica-Šempeter Vrtojba represents the concrete application case of the research – an emblematic territory of connection and friction between different urban systems. Studies on the eastern border[19] highlight how this territory, historically shaped by infrastructures and institutional transformations, functions as a true "spatial engine."

The ZES project developed here therefore adopts the "moving border" as both an operative and design tool, as well as the testing ground for the research. The goal is to overcome the logic of administrative enclaves by creating flexible, open, and connected territorial devices that operate at the intersection of infrastructure, inhabitation, and logistics.

Multiscalarity and the Mutation of Centralities: SEZ as "Trigger Devices" in FVG

Friuli Venezia Giulia, a strategic hub between the Northern Adriatic and Central-Eastern European markets, is crossed by the Baltic-Adriatic and Mediterranean TEN-T corridors. The region is characterized by major intermodal logistics infrastructures (the ports of Trieste, Monfalcone, and S. Nogaro; the freight villages of Cervignano, Fernetti, and Gorizia SDAG; and the Trieste-Ronchi airport), connecting maritime,

18. M. Ferrari et. al., *A moving border. Alpine cartographies of climate change*. (New York: Columbia University Press, 2018).

19. S. Basso, *Nel confine: riletture del territorio transfrontaliero italo-sloveno*. (Trieste: EUT, 2010).

road, and rail traffic (Figure 4). These facilities make the region a testing ground for experimenting with innovative models of territorial transformation through Special Economic Zones (SEZ), conceived as "systemic shocks" and "trigger devices." These targeted and multiscalar interventions stimulate processes of urban and infrastructural reconversion in marginal territories, operating simultaneously at architectural, infrastructural, and territorial scales.

Cross-border SEZ (such as Gorizia-Nova Gorica-Šempeter Vrtojba) thus become adaptive tools for testing new relationships among flows, goods, infrastructures, and settlement configurations – promoting logistics platforms integrated with housing, flexible forms of inhabitation, and goods flows that combine operational efficiency, urban quality, and environmental sustainability.

The overall methodology of the research is therefore based on an integrated and multiscalar approach, employing tools such as the *moving border*, adaptive design, and infrastructure regeneration/conversion. The study has developed thematic and morphological maps, comparative analyses of data and flows, and design strategies – thus going beyond the purely productive or fiscal logic of SEZ, and transforming them into opportunities for urban and environmental design.

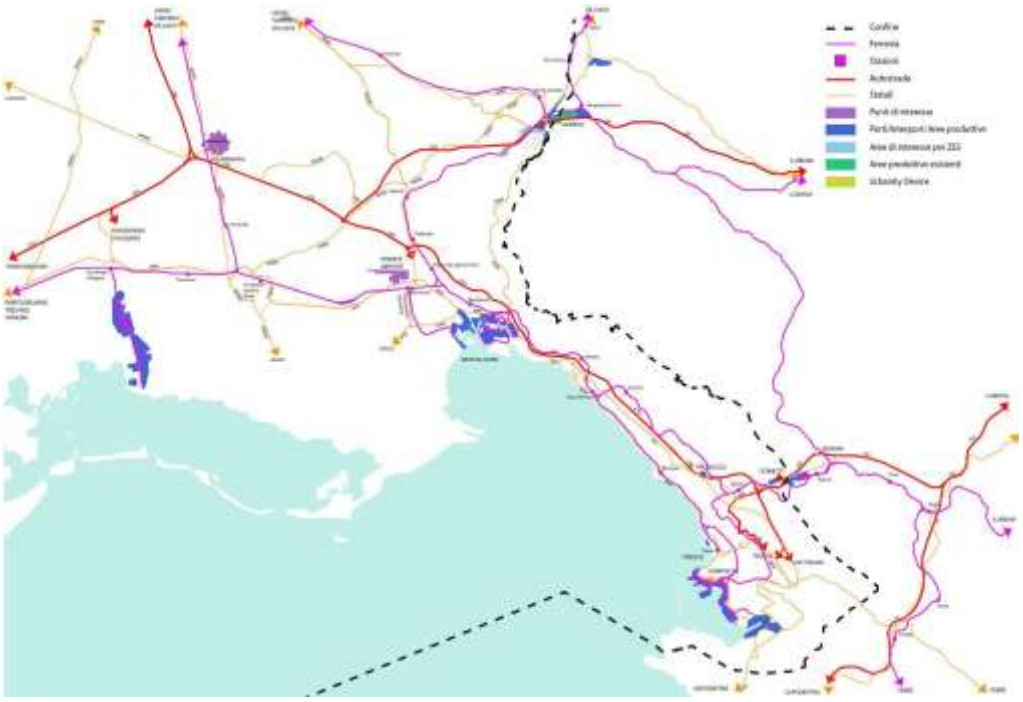

Figure 4. *Logistic System of Friuli Venezia Giulia (FVG) Supporting the Research Project for the FVG SEZ, 2025*

Source: Map created by V. Umani, UNITS Research for the CARIGO Foundation. Research title: *ZESE GoNGO – Zona Economica Speciale Europea at Gorizia Nova-Gorica, 2025-26 UNITS.*

Results

Infrastructure Architecture and Street Space

The divide between infrastructure and architecture is fading, giving rise to hybrids responding to densification, sustainable mobility, and user flexibility. Examples include inhabited viaducts and infrastructure parks, such as London's speculative Living Bridges or Paris's Promenade Plantée, which transform infrastructure into public, habitable spaces.

Urban intersections and nodes in projects like Paris's Rive de Seine and Madrid Río convert highly infrastructural zones into vibrant social and environmental platforms. These interventions reveal the street as architectural matter, a "deep surface" incorporating flows, territorial policies, and ecology. A clear principle emerges: intentionally designed coexistence between different (urban and non-urban) flows is no longer a problem to avoid but a resource to activate. Streets, once spaces separating uses, become dynamic fields where diverse speeds, modes, and functions interact to create new architectural forms.

This "urbanity of friction", where overlapping rhythms and uses coexist, isn't new: historical European boulevards and promenades show functional layering. What's changed is the deliberate design to orchestrate these differences, not for control but to foster spatial complexity and new architectural forms.

Unlike modern zoning that separated functions, contemporary *typo-logistic* design embraces friction between uses, walking alongside traffic, inhabiting transit spaces, to turn conflict into a compositional opportunity.

Visionaries like Lawrence Halprin[20] and Bernard Tschumi[21] saw urban space as dynamic choreography, where overlapping activities generate meaning and urban experience. Contemporary examples like Barcelona's Superilla and the Hans Monderman designed spaces in the Netherlands demonstrate how designing friction enhances spatial quality.

Thickness, Edge, Path, Interface: A Design Lexicon for Street Space

If *infrastructure space* is now recognized as a key category in urban design, we must also adopt tools to read and shape the street as active architecture, equipped with form, function, aesthetics, and social value.

Building on Adriano Venudo's[22] work, which updates insights from Kevin Lynch[23] and Venturi, Scott Brown and Izenour,[24] he identifies four key categories for understanding the street as habitable infrastructure: thickness, edge, path, and interface.

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20. L. Halprin, *Cities*. (Cambridge, MA: MIT Press, 1972).

21. B. Tschumi, *Manhattan Transcripts*. (London: Academy Editions, 1994).

22. A. Venudo, *Scritto sulla strada. Dall'infrastruttura allo spazio aperto. Teorie, tecniche e strumenti*. (Gorizia: GOtoECO, 2010).

23. K. Lynch, *The Image of the City*. (Cambridge, MA: MIT Press, 1960).

24. R. Venturi, D. Scott Brown and S. Izenour, *Learning from Las Vegas*. (Cambridge, MA: MIT Press, 1972).

Thickness refers to the street's spatial depth, not just a flat surface, but a layered, three-dimensional structure hosting mobility, commerce, greenery, and utilities.

Edge is the transitional zone between infrastructure and urban fabric, where movement meets pause, and logistics meets urbanity. Its quality defines how the street integrates with the city.

Path acts as the morphogenetic spine, shaping direction, curvature, and sequence, serving both spatial and symbolic functions.

Interface includes all mediating devices, physical or digital, that make the street legible and accessible: crossings, signage, sound buffers, transit stops, and more.

This lexicon reframes the street as not just a technical artifact, but as a formal, ecological, and political opportunity. It supports an understanding of infrastructure as lived space, where logistics and everyday life intersect and evolve.

In the context of the SEZ and of the transformations induced by logistics, the lexicon of the space-street becomes an instrument to critically redefine the material conditions of the SEZ and as an operational tool in the development of the Gorizia-Nova Gorica/Monfalcone SEZ as an urban project.

Architecture-Infrastructure

The following projects consolidate the increasingly blurred boundary between infrastructure and architecture: streets and circulation systems do not merely connect functions, but become habitable devices, landscapes, and urban form. In these *typo-logistic* hybrid typologies, architecture and logistics co-constitute one another, reflecting the spatial consequences of Europe's evolving production geographies. What these projects have in common is not only their scale, but a paradigm shift: design is no longer organized around a stable "front" and "back", nor around a pedestrian, frontal experience. Instead, built form is generated by continuous flow and by a cinematic, mobile perception—architecture is conceived from the viewpoint of the driver, and its measures depend on design speed, turning radii, visibility, and dynamic perception.

A useful conceptual frame comes from the idea of the "volume of street space" and from the street/interface as an operative artifact mediating public and private domains. In the essay's "Pionieri tra i pionieri. Coliseum Center Shopping Mall"[25] reconstruction of the IAUS "Project Streets" research (Eisenman), the street is not a neutral line but a spatial field whose interfaces can increase permeability and generate complexity.

Within logistification, this field becomes explicitly operational: movement, access, loading, and parking act as generative forces, turning infrastructure into a design material and a morphological driver.

The first set of example projects exemplify how infrastructure and urban design merge, how the logics of circulation and street design contribute to the definition of new urban forms.

25. A. Venudo, *Pionieri tra i pionieri. Coliseum Center Shopping Mall*, in C. Meninno, V. Rodani, The shopping center as/is a meeting place. (Trieste: EUT, 2020), 54-67.

MVRDV's Flight Forum[26] in Eindhoven integrates airport logistics with urban functions, using streets as organizing elements that define form and flow. The geometries of the buildings answer to the logic of operative time, to movement visibility and the efficiency of the circulation layout.

MVRDV's Flight Forum (1998-2005) is an industrial and business park next to Eindhoven Airport, developed on parts of an abandoned air-force base. Its strategy is explicitly spatial: rather than isolated objects in a dispersed landscape, buildings are organized wall-to-wall in clusters, producing conglomerates surrounded by continuous lots for loading and parking. This is crucial for the architecture-infrastructure argument: the project is not composed through a primary façade addressing an urban street, but through a continuous operational perimeter where logistics and circulation define edges and exposures. The "street" is not a residual in-between; it is the organizing system that stabilizes flows, legibility, and access, and thereby shapes built form. In typo-logistic terms, *edge* and *interface* emerge as operational thresholds - spaces where the logistics landscape becomes readable and usable through design.

MVRDV frames the internal road network as a continuous-flow system: curving lanes and looped access are conceived to keep vehicles moving, making speed, visibility, and turning radii explicit design parameters rather than constraints.

NL Architects' Parkhouse/Carstadt[27] in Amsterdam treats a parking structure as a "habitable road," combining transport with living and commercial spaces. This "continuous micro-city" allows cars to move on its roof and is planned as an infrastructural section, where every floor is at the same time, technical surface and livable space. The unbuilt Parkhouse/Carstadt project radicalizes the same principle by transforming parking and circulation into architecture. Several sources describe it as a large sloping parking surface that rises to multiple storeys and ramps down again, with program nested underneath - cars become, in effect, "roof ornament and program", while the ramp is the main urban figure. A detailed reconstruction highlights its 1 km extension, a horseshoe trajectory, and the way the carriageway folds within site limits to knot different parking levels while carving voids into the mass below. This is exactly the "continuous flow" logic: the building is an infrastructural ring/loop that allows movement to remain uninterrupted, while commercial, residential and service programs are inserted "between the folds" of the ramped section. Conceived as a folded 1 km-long road, its 19-meter-wide ramp climbs at about 3.5–5% (max 6%) up to the 30 m height limit, so that "roof" and "road" coincide and the building is experienced as a single cinematic trajectory.

Here the architectural paradigm is explicitly cinematic: the project is conceived to be experienced in motion, calibrated through speed, curvature, and visibility. Here, urban measure is recalibrated around the automobile. Speed and curvature govern dimensions and form, while visibility and dynamic perception shape how space is read in movement; parking surfaces, kerbs, ramps and glazed envelopes become the operative thresholds of this mobile public realm.

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26. MVRDV, *Flight Forum, Eindhoven*, in *KM3: Excursions on Capacities*. (Barcelona: Actar, 2005).

27. NL Architects, *Parkhouse Carstadt, Amsterdam*, in *BasketBar and Other Projects*. (Barcelona: Actar, 2005).

In the lexicon proposed by this paper, Parkhouse/Carstadt becomes an exemplary device of path (as built trajectory), thickness (as sectional depth where technical and habitable layers overlap), and interface (as continuous mediation between vehicle circulation and inhabitable programs).

Other examples include the unbuilt project for Ponte Parodi in Genova by UNStudio[28] that proposed a radical integration between land, roads and commercial architecture following the logic of a "built infrastructural landscape". Ponte Parodi pushes the hybridization of land, infrastructural access, and mixed-use programming. The project is conceived as a three-dimensional piazza and public attractor integrating retail, leisure, a cruise terminal, cultural programs, and a rooftop public park, within a layered organization of circulation typologies. Descriptions stress that the juxtaposition of circulation systems is not secondary but *formative*: it organizes program and optimizes flows through and on top the building. This makes Ponte Parodi a clear typo-logistic case: not a building next to infrastructure, but an infrastructural-morphological device where *edge* and *interface* are spatialized as public continuity, and where the project's urbanity is generated by the orchestration of multiple mobilities (pedestrian, service, tourist, port-related). Conceived as a built infrastructural landscape, it superimposes public topography, parking decks, and circulation gradients to produce a waterfront architecture readable in motion from the surrounding road and harbor infrastructures.

And Zaha Hadid's CMA CGM Tower[29] in Marseille, is an unexpected example of how *logistification* can profoundly affect the architectural morphology of a vertical building. While departing from the more common horizontal developments associated with this typology, the tower stands within a "no man's land", compressed between two elevated highway ribbons, in an urban landscape marked by vehicular flows and transit infrastructure. The space below the highway, typically hostile and residual, is here rearticulated as a threshold: a transition zone where the pylons and the green and pedestrian surfaces surrounding the building interact as one. Traveling along the highway, the tower appears as a soaring blade that divides the two infrastructural arteries. This second set of examples are more specific to production platforms and operational spaces, but they follow the same "borrowing" principles. By merging shapes, methodologies and flows, these operational/production projects create new aesthetics along with new architectural and urban forms. Rem Koolhaas anticipates the idea of an urban space dominated by fluxes, efficiency systems and logics in his *The Harvard Guide to Shopping*[30] and the more recent *Countryside: The Future*.[31] Architecture loses its formal primacy to become a component of "larger systems", like those of logistics and algorithmic governance.

28. UNStudio, *Project for Ponte Parodi, Genoa (2001)*, in *Designing the User Experience*. (Amsterdam: Frame Publishers, 2016).

29. Z. Hadid Architects, *CMA CGM Headquart*ers. Retrieved from: https://www.zaha-hadid.com/architecture/cma-cgm-headquarters/ [Accessed July 2025].

30. R. Koolhaas et al., *Project on the City 2: The Harvard Guide to Shopping*. (Cologne: Taschen, 2001).

31. R. Koolhaas, *The Countryside: The Future*. (New York: Guggenheim Museum, 2020).

Also, projects like Port City Futures[32] or Logistics Landscape,[33] are contributing to a new interpretation of the European territory as a diffused infrastructural system, where ports, SEZ, multimodal corridors and productive architectures give birth to new labor landscapes, in those areas often considered marginal or peri-urban.

Taken together, these cases clarify why "highwaying" is not only a matter of scale but of architectural epistemology. The shift is from frontal composition to flow-based morphogenesis: volumes are drawn by trajectories; fronts and backs dissolve into continuous operational envelopes; and spatial quality depends on how design governs speed, curvature, visibility, and thresholds. In these typo-logistic hybrids, the driver (the human-in-vehicle) becomes the implicit design subject.

What appears is a public space "of movement", with uncertain boundaries where edges, parking fields, ramps and glazed fronts act as threshold-spaces. In this sense, typo-logistic hybrids are not simply new morphologies, but a redefinition of architectural agency. Architecture becomes a component of larger systems (logistics, mobility governance, operational time), yet precisely through this dependency it can re-open questions of urbanity - by designing thickness, edges, paths, and interfaces as inhabitable infrastructural space. In this sense, the *typo-logistic* is not just a new morphologic category, but a new paradigm of the architecture project and it implies rethinking of the classic categories of the city, productive and public spaces. *Path* becomes built trajectory, *thickness* becomes section-as-infrastructure, *edge* becomes operational perimeter, and *interface* becomes the mediating device that can intensify permeability between public and private domains.

Discussion

The SEZ Urban Space as a "Logistic Interface"

In this hybrid context, administrative borders are replaced by performance-based logics: spatial values arise from a site's capacity to absorb, transform, and distribute flows, materials, information, and humans.

Keller Easterling[34] reinforces this by identifying SEZ as a key instance of *infrastructure space*, seemingly neutral zones that, through protocols and connections, silently structure globalization. Their design lies not in local masterplans but in flow patterns and network dynamics, making SEZ both logistical platforms and spatial actors that shape behavior and landscape on an international scale.

European examples like Teesworks (UK), Katowice and Łódź (Poland), and the currently under definition Gorizia-Nova Gorica/Monfalcone SEZ reveal new hybrid models. Particularly in FVG, the SEZ assumes a polycentric form: a mesh of production, logistics, and housing hubs that create a distributed regional interface, integrated into broader transnational networks, from ports like Trieste, Monfalcone and San Giorgio di Nogaro, to the inner lands like Gorizia and Nova Gorica. Their

32. PortCityFutures, TU Delft. Retrieved from: https://www.portcityfutures.nl [Accessed July 2025].

33. Logistics Landscapes Research Group, ETH Zurich. Retrieved from: https://logisticslandscapes.arch.ethz.ch [Accessed July 2025].

34. Ibid, Easterling.

value stems from access to multimodal corridors and their adaptability to evolving industrial needs. In this sense the very idea of proximity is flipped, it is not just physical, but also an intangible infrastructure made up of flows, relationships, and shared visions. The challenge is to imagine forms of infrastructural urbanity capable of leveraging the territory's unique morphology, transforming constraints into resources and fragmentation into a driver of design and regeneration.

This challenges the notion of SEZ as "non-places," proposing instead that they be reimagined as urban devices blending habitability, work spaces, and mobility, offering opportunities for integrated, sustainable coexistence between people, facilities, and fluxes. To engage with SEZ as emergent urban forms means crafting new design vocabularies and infrastructure aesthetics that reflect their political and operational complexities. SEZ create sharp divides between regulated internal zones and informal external settlements. These adjacent zones often lack urban qualities, forming thresholds shaped by logistics but disconnected from city life.

The border-space of the SEZ then becomes an opportunity to develop a further "urbanity device", a hybrid architectural-infrastructural intervention at the SEZ edge, able to provide services and social interfaces for workers living around the Gorizia-Nova Gorica/ Monfalcone territory. Rather than porous in the traditional sense, this structure operates as a contact zone, where the need for stability, identity, and belonging meets the pressures of economic efficiency. Its form and function can reflect local cultures and uses, addressing context-specific needs without replicating the rigidity of formal planning, but utilizing the *typo-logistic* principles and aesthetics.

This building-device should aim to intercept vulnerability without institutionalizing it, offering forms of support without consolidating precariousness.

Seen through this lens, the edge of the SEZ is not just a boundary for goods or customs, but an architectural and urban laboratory, a place where tensions are made visible, and where new spatial and social experiments can take shape. SEZs, then, are not just physical realizations of policies, they are spaces to be designed, inhabited, and reinterpreted.

Friuli Venezia Giulia: Scattered SEZ, Housing Regeneration, and New Proximities

As a historic borderland and current strategic hub in the Euro-Adriatic logistics network, the Friuli Venezia Giulia region presents a striking paradox: a rising demand for labor linked to logistics and production hubs, and at the same time, a widespread underuse of existing housing, particularly in small towns and historic centers affected by depopulation and deindustrialization.

ISTAT data[35] indicates tens of thousands of empty or disused housing units in the region, mostly in internal areas. Meanwhile, commuting is a defining feature of daily life: 71.6% of residents commute for work, among the highest rates in Italy,[36] and regional train use is steadily increasing, with daily passengers rising from 21,232

35. Trieste Prima, "Immobili vuoti a Trieste: colpa della crisi demografica." Retrieved from: https://www.triesteprima.it/attualita/immobili-vuoti-trieste-colpa-crisi-demografica.html [Accessed July 2025].

36. ISTAT, "Gli spostamenti per motivi di studio o lavoro nel 2019." Retrieved from: https://www.istat.it/comunicato-stampa/gli-spostamenti-per-motivi-di-studio-o-lavoro-nel-2019-secondo-il-censimento-permanente-della-popolazione/ [Accessed July 2025].

to 29,000 between recent years, according to Legambiente's Pendolaria report.[37] This pattern highlights the urgent need for integrated policies that address production, logistics, mobility and housing in a coordinated way.

The SEZ concept here could evolve into a scattered, polycentric system of intermodal nodes and specialized districts, linked to underutilized housing in historic centers like in Gorizia for example. Reactivating existing homes rather than building anew would foster sustainable, flexible living tied to logistic rhythms.

This model redefines proximity as systemic and adaptable, embedding urbanity within logistical flows. It offers a spatial strategy that counters the "non-place" stigma, advancing territorial cohesion, logistical innovation, and urban quality through housing regeneration and distributed SEZ design.

In FVG, where marginality is both a condition and a resource, a scattered trans-national SEZ model between Gorizia, Nova Gorica and Monfalcone, coupled with the reuse of strategic housing in neglected historic centers, could form the basis for an integrated spatial policy that links territorial cohesion, logistical innovation, and a renewed quality of urban life.

Conclusions

Traffic Architecture as Architecture of Contemporaneity

The contemporary urban project is increasingly shaped by flows, infrastructures, and logistical systems. In this context, Lawrence Halprin's 1966 concept of Traffic Architecture[38] becomes newly relevant. Halprin proposed an aesthetic and functional approach to mobility infrastructure, envisioning roads and interchanges as spatial systems integrated into the landscape, capable of supporting perceptive continuity and urban coherence. Revisiting Halprin's vision through contemporary examples in the Netherlands, France, Italy, shows how infrastructure is used to hybridize architecture, densify cities, and mediate between different speeds of life. Roads, viaducts, and intermodal hubs become active urban components, accommodating residential, productive, and social functions.

For Halprin, the aesthetics of infrastructure were not secondary but central: an attempt to create a coherent visual grammar for the landscapes in motion, both for those crossing highways and for those living along their margins. This legacy prompts a key question today: Is an aesthetic of logistics still possible?

Special Economic Zones, as contemporary infrastructural and territorial devices, embody a global-local paradox. While built for maximum efficiency in global supply chains, they inevitably anchor themselves in local contexts, impacting space, form, and social relations. This tension gives rise to two distinct yet interrelated aesthetics.

The first is internal to logistics itself: a standardized, highly legible architectural language of efficiency, repeatability, and neutrality. This "network aesthetic" functions

37. Legambiente, *Pendolaria 2023*. Retrieved from: https://www.legambiente.it/wp-content/uploads/2021/11/Pendolaria-2023.pdf [Accessed July 2025].

38. L. Halprin, *Freeways*. (New York: Reinhold, 1966).

as a transnational identity, aligning European SEZ into a recognizable system. Clean lines, prefabrication, and functional detachment signal this system-wide coherence, echoing Halprin's vision of visual continuity across the USA's interstate highway system.

The second aesthetic emerges at the margins: a language of mediation and interface. This is where the hybrid border-architecture devices previously mentioned are placed. They could support logistics workers and adjacent communities, offering services like canteens, rest areas, laundries, and spaces for socialization. While not formally part of the SEZ, they could constitute a vital social infrastructure. Unlike the standardized core, these interface-architectures can adopt a localized, context-aware language, using materials, forms, and spatial strategies rooted in place. Here, aesthetics is inseparable from function: they generate belonging, improve quality of life, and reframe the margins as meaningful urban spaces.

Rather than opposing these two aesthetics, the challenge lies in navigating their tension. The SEZ's global functionality coexists with local impact, requiring design strategies that integrate, mitigate, and relate. Recognizing this duality grants logistics an architectural and civic responsibility. It counters the functionalist view that sees infrastructure as neutral, emphasizing instead that even the most technical systems have form, visibility, and social consequence.

In Friuli Venezia Giulia, this aesthetic duality is already visible. Standardized logistics typologies are being juxtaposed with context-sensitive interventions, such as in Monfalcone, where interface architectures use local materials, hybrid programs, or adaptive reuse to create new forms of spatial engagement. These projects hint at a possible future in which logistics is not just efficient, but also legible, livable, and urban.

When dealing with the aesthetics of infrastructure however, perhaps a third one needs to be mentioned: *highwaying* (Figures 5-6). Naturally *highwaying* does not exclusively refer to the aesthetic category but it cannot be separated by it. If Lawrence Halprin's traffic architecture laid the groundwork for an aesthetic of movement and infrastructure integrated into the landscape and the city, the concept of *highwaying* proposed by SMAQ Architects[39] introduces an even more radical reflection: the highway is no longer just a functional element to be crossed or mitigated but becomes the backbone around which a new type of settlement is structured. In the *Highway...ing* project in Stuttgart (Figure 6), a high-speed road is reprogrammed to integrate itself into a larger system of housing, services, and leisure spaces, generating a form of urbanization that literally arose from vehicular flow.

The highway, normally perceived as an element of separation and fracture, is reinterpreted as an "elastic and mutable strand" of spatial possibilities. The authors even produced an animation, alongside other more traditional forms of representation, in order to break down the experience into sequences of movement-driving, slowing down, stopping, transition-transforming the flow into a design grammar. In this scenario, logistics is not just a background, but a formal and functional matrix, capable of generating new housing and spatial typologies.

This kind of approach opens up the possibility for a new *typo-logistic* aesthetic, in which mobility infrastructures are no longer elements to be masked or denied but

39. SMAQ Architects, "Highway…ing – Stuttgart, Germany." Retrieved from: https://www.smaq.net/2003/01/highway%e2%80%a6ing-stuttgart-deutschland/?lang=en [Accessed July 2025].

supporting structures of the architectural imaginary. *Highwaying*, in this sense, becomes a methodology: a way to read, interpret and transform the territories crossed by flows into habitable devices that combine production, accessibility, protection and environmental integration.

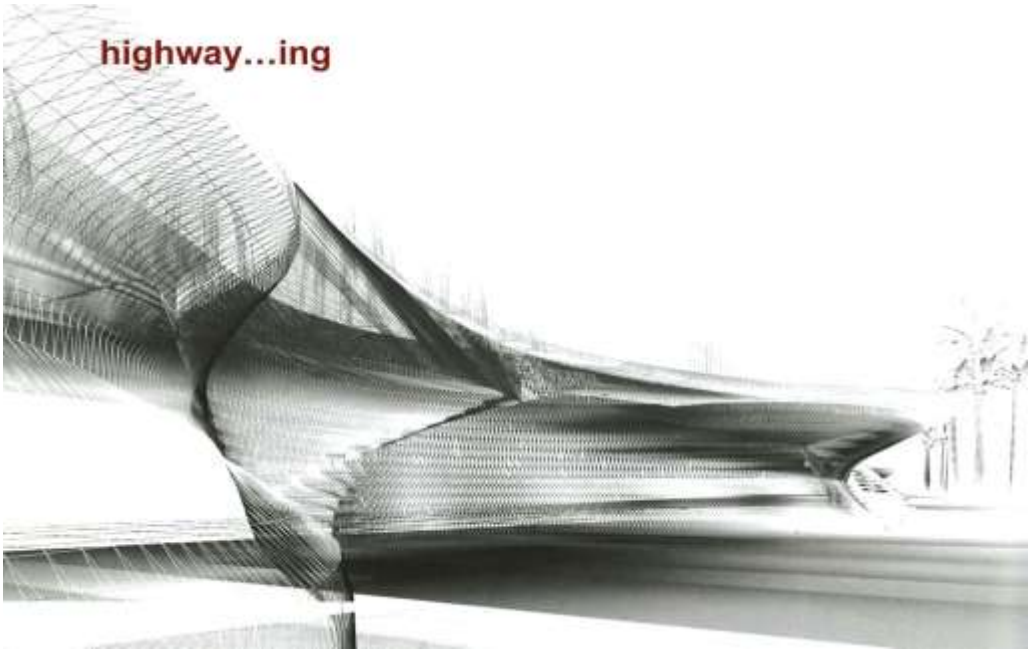

Figure 5. *Drawing of a Fragment of the Waterfront Project in Benidorm by C. Ferrater and X. Martì, Particularly Illustrative of the Concept of Highway…ing (Hybridization Between Spaces of Movement and Spaces of Dwelling). Project 2009–2014*
Source: OAB Office website, https://ferrater.com/project/benidorm-west-beach-promenade/.

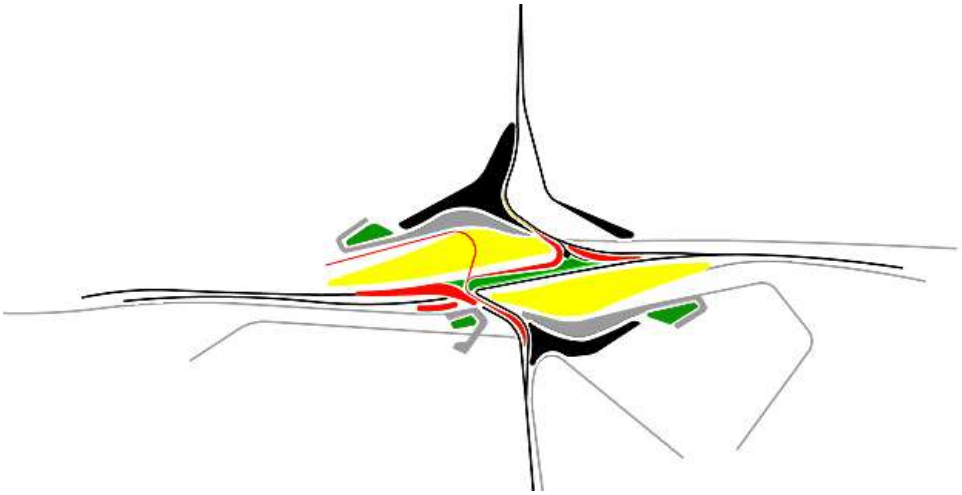

Figure 6. *Drawing of a Site Plan Study for Highway … ing Stuttgart by Andreas Quednau and Sabine Muller SMAQ Architects, Particularly Illustrative of the Concept of Highway…ing (Hybridization Between Spaces of Movement and Spaces of Dwelling). Project 2003*
Source: SMAQ Architects Office website, https://www.smaq.net/2003/01/highway%e2%80%a6ing-stuttgart-deutschland/.

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Bibliography

Augé, M. *Non-Lieux. Introduction A Une Anthropologie De La Surmodernite.* (Non-Places: Introduction to an Anthropology of Supermodernity.) Paris: Éditions du Seuil, 1992.

____. *Nonluoghi. Introduzione a una antropologia della surmodernità.* ((Non-Places: Introduction to an Anthropology of Supermodernity.) Milano: Eleuthera, 1993.

Aureli, P. V. *The Project of Autonomy: Politics and Architecture Within and Against Capitalism.* New York: Temple Hoyne Buell Center for the Study of American Architecture & Princeton Architectural Press, 2008.

Basso, S. *Nel confine: riletture del territorio transfrontaliero italo-sloveno.* (On the Border: Rereadings of the Italian-Slovenian Cross-Border Territory.) Trieste: EUT, 2010.

Cowen, D. *The deadly life of logistics. Mapping violence in global trade.* Minneapolis: University of Minnesota Press, 2014.

Di Sopra, L. *La struttura urbanistica friulana. Analisi e prospettive.* (The urban structure of Friuli: Analysis and perspectives.) Udine: Del Bianco Editore, 1967.

Easterling, K. *Extrastatecraft: The Power of Infrastructure Space.* London-New York: Verso Books, 2014.

____. *Lo spazio in cui ci muoviamo. L'infrastruttura come sistema operativo.* (The space we move in. Infrastructure as an operating system.) Roma: Treccani, 2019.

Ferrari, M., et al. *A moving border. Alpine cartographies of climate change.* New York: Columbia University Press, 2018.

Halprin, L. *Freeways.* New York: Reinhold, 1966.

____. *Cities.* Cambridge, MA: MIT Press, 1972.

Ingersoll, R. *Sprawltown.* Roma: Meltemi, 2004.

Koolhaas, R. *The Countryside: The Future.* New York: Guggenheim Museum, 2020.

Koolhaas, R., et al. *Project on the City 2: The Harvard Guide to Shopping.* Cologne: Taschen, 2001.

Koolhaas, R., S. Boeri, S. Kwinter, N. Tazi, and H. U. Obrist. *Mutations*. Barcelona: ACTAR; Bordeaux: Arc en Rêve Centre d'Architecture, 2000.

LeCavalier, J. *The Rule of Logistics: Walmart and the Architecture of Fulfillment.* Minneapolis: University of Minnesota Press, 2016.

Legambiente. *Pendolaria 2023*. (Commuter 2023.) Retrieved from: https://www.legambiente.it/wp-content/uploads/2021/11/Pendolaria-2023.pdf [Accessed July 2025].

Logistics Landscapes Research Group, ETH Zurich. Retrieved from: https://logisticslandscapes.arch.ethz.ch [Accessed July 2025].

Lynch, K. *The Image of the City.* Cambridge, MA: MIT Press, 1960.

Mastrigli, G. (Ed.) *Rem Koolhaas. Junkspace. Per un ripensamento radicale dello spazio urbano.* Macerata: Quodlibet, 2006.

Meninno, C. *Evoluzione di un territorio. Architettura e infrastruttura. Strategie per uno sviluppo territoriale transfrontaliero in ambito europeo.* (Territorial Evolution. Architecture and Infrastructure. Strategies for Cross-Border Territorial Development at a European Level.) Trieste: EUT, 2022.

Multiplicity (S. Boeri, et al.) *USE: Uncertain States of Europe.* Milano: Skira, 2003.

MVRDV. *Flight Forum, Eindhoven*, in *KM3: Excursions on Capacities.* Barcelona: Actar, 2005.

NL Architects. *Parkhouse/Carstadt, Amsterdam*, in *BasketBar and Other Projects.* Barcelona: Actar, 2005.

PortCityFutures, TU Delft. Retrieved from: https://www.portcityfutures.nl [Accessed July 2025].

Sgolacchia, R. *The Logistification of Migrant Workers' Housing: Understanding Flexibility and Scalability of Containerised Boxes.* PhD diss., Università Iuav di Venezia, 2023, XXXV Cycle, International PhD Program "Villard de Honnecourt", Supervisor: prof. Giuseppe Ciorra.

SMAQ Architects. "*Highway…ing – Stuttgart, Germany*." Retrieved from: https://www.smaq.net/2003/01/highway%e2%80%a6ing-stuttgart-deutschland/?lang=en [Accessed July 2025].

Tschumi, B. *Manhattan Transcripts.* London: Academy Editions, 1994.

UNStudio. *Project for Ponte Parodi, Genoa (2001)*, in *Designing the User Experience.* Amsterdam: Frame Publishers, 2016.

Venturi, R., D. Scott Brown and S. Izenour, *Learning from Las Vegas.* Cambridge, MA: MIT Press, 1972.

Venudo, A. *Scenari XZes e riconfigurazione tra nodi e archi per la città continente.* (XZes scenarios and reconfiguration between nodes and arcs for the continent city.) In *Ibid, Meninno*, 106.

____. *Scritto sulla strada. Dall'infrastruttura allo spazio aperto. Teorie, tecniche e strumenti.* (Written on the Road. From Infrastructure to Open Space. Theories, Techniques, and Tools.) Gorizia: GOtoECO, 2010.

Z. Hadid Architects, *CMA CGM Headquarters*. Retrieved from: https://www.zaha-hadid.com/architecture/cma-cgm-headquarters/ [Accessed July 2025].