

INFRASTRUCTURE OF THE UNEXPECTED. CORVETTO FLYOVER AS A TRANSGRESSIVE TERRARIUM

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INFRASTRUCTURE OF THE UNEXPECTED

The encounter with a habitat different from the one of origin produces inventive adaptations that trigger new cultural and biological forms, prompts the production of hybrids, and generates innovation [...]. (Metta 2022, p. 34). Terrariums have the power to embody the human fascination for unknown ecologies, encasing a desire to recall different geographies within ordinary conditions. The result is a miniature of an ideal ecosystem able to perpetuate the life it contains: a diorama that displays an invisible set of biological processes involving air, soil, and other living organisms. The terrarium is, therefore, a medium that unveils primary relations between ecology, architecture, and landscape by looking at a fundamental material: soil. By shifting the perception of soil as a static object to an active subject with power, we move from an “ego-centric” to an “eco-centric” perspective where the possibility of a collective inhabitation with living beings – where humans are only one kind of participant – opens.

“Acting with the soil” (Besse 2020, p. 43) produces a paradigm shift where this agent is no longer conceived as a mere surface but as a living body: a volume, understood in its thickness, capable of supporting and regulating relations within a fertile environment where both “life and decay are possible” (Galí-Izard et al. 2022, p. 71).

Interpreting soil as a vital matter open to change offers the tools to overcome the dualism that, in Western culture, “structures by negation the very idea of urban” (Protasoni 2022, p. 33). To see the city from the perspective of soil requires a radical change: an approach towards design capable of working with the unexpected – into a dimension of acceptance of what is uncertain or unknown – traceable to the *anti-fragile* concept introduced by Nassim Nicholas Taleb. This pushes us to widen the boundaries of what we consider soil to be, including a mixture of hard materials and artificial topographies that – in the common understanding – would belong to the sterile dimension of the infrastructural landscape.

In a time where the state of crisis related to climate change is imposing a new normal, the way we look at the urban palimpsest recalls that “the real place of the improbable is the city” (Tafuri 1979, p. 96), considering unforeseen urban scenarios and recognizing a spatial value to seemingly meaningless fragments. If adopting this vision, the figurative meaning of the terrarium can be expanded to include physical objects able to relate to phenomena crossing different scales and involving diverse agents within the urban environment, from living particles to large-scale artifacts.

The perimeter of this representation may coincide with an object bearing the character of an unexpected terrarium, a space to be considered in its three dimensions, exposed to sunlight, crossed by breaths of wind, collecting rainfall: the architectural-infrastructural typology of the flyover.

THE ARCHITECTURE OF THE FLYOVER AS AN INFRASTRUCTURAL ISLAND

The dialogue between wilderness and infrastructure is drawn between contrast, which separates antagonistic environments, and correspondence, which occurs between places that are complex, layered, and equally foreign to the scale of human habitation. (Pradel 2021, p. 187).

Following this correspondence, the flyover – isolated recipient for unforeseen natural expressions – gains a generative power, leaving room for unpredictable urban ecologies in the form of self-sufficient miniatures. In this dynamic, the artifact's function from a utilitarian perspective does not entirely determine its character. To understand it as a terrarium, this *infrastructural monument* has to be studied “not as a system but as an object; not as a logic but as an artifact; not as a tube but as a space” (D’Hooghe 2010, p. 78). Beyond the scale of the transportation network, referring to the city as “an idea and structure of coexistence” (Lee 2016, p. 27), the flyover can therefore be read as something other than its asphalt-covered surface.

Like an emerged land, in its separation from the surrounding environment, the flyover is an atypical space: an elevated artificial ground. Outside the functionalist logic underlying its existence, such space might resemble a *deserted island*, “remote, separated, intimately *alternative*.” (Ghidoni 2011, p. 3).

This capability of the architecture of the flyover to generate alternatives eluding the control of design emerges through close observation. Across its cracks, fractures, and discontinuities, in a minimal thickness and along a Deleuzian *fold*, space remains for pioneer forms of vegetation to emerge: an opening to possibility, an opportunity for biological processes to be triggered. Under these conditions, such an architectural object proves a strong captive potential. It can intercept vagabond species and – incorporating them into its structure – leave room for transgressive “spaces of unprecedented natures, whose forms and functions are reconceptualized.” (Metta 2022, p. 148).

DETACHED URBAN GROUNDS BEYOND THIRD LANDSCAPE

As soon as there is ‘room’ available, life is ready to take over and activate – with its own resources – an autonomous series of regeneration processes. (Bee, Clément 2022, p. 145). Moving from the line of research initiated by Gilles Clément and established through crucial concepts such as the *third landscape* and *planetary garden*, this reflection recognizes the value of residual urban fragments as repositories for unexpected and unplanned ecologies. Facing this topic, an object such as the flyover embodies a dichotomy: on the one hand, the artifact, in its detachment from the main ground, belongs to a set of quiet “backyard” spaces characterized by the absence of interaction with the human body. The lack of this direct perception interposes a filter between the control practices usually adopted to maintain the structural integrity of urban artifacts and the infra-natural dynamics taking place in its discontinuities. As a parallel to the inaccessible Île Derborence located at the center of the Parc Matisse in Lille, the flyover retains a degree of autonomy from the rest of the urbanized soil.

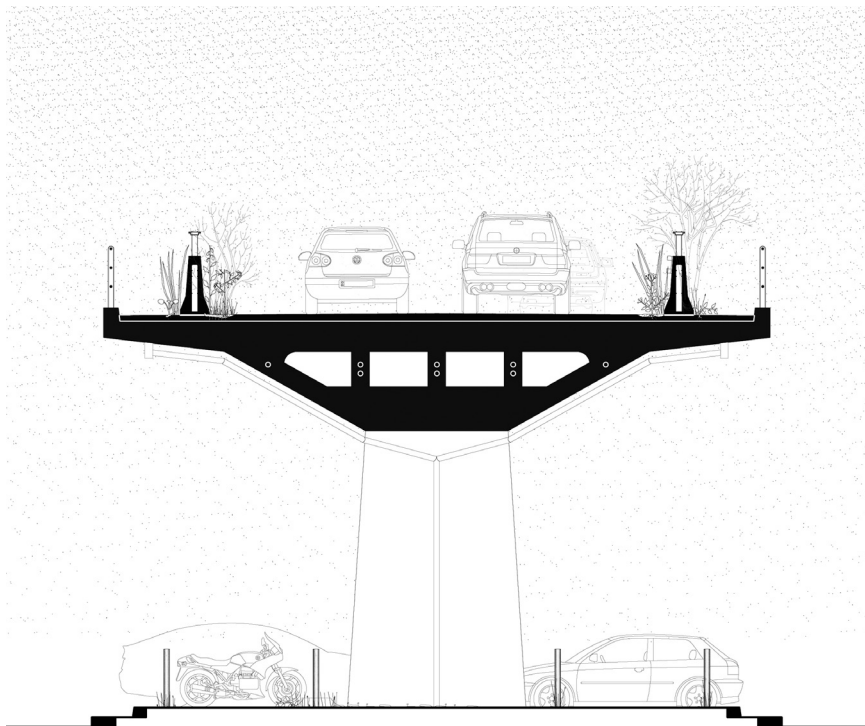
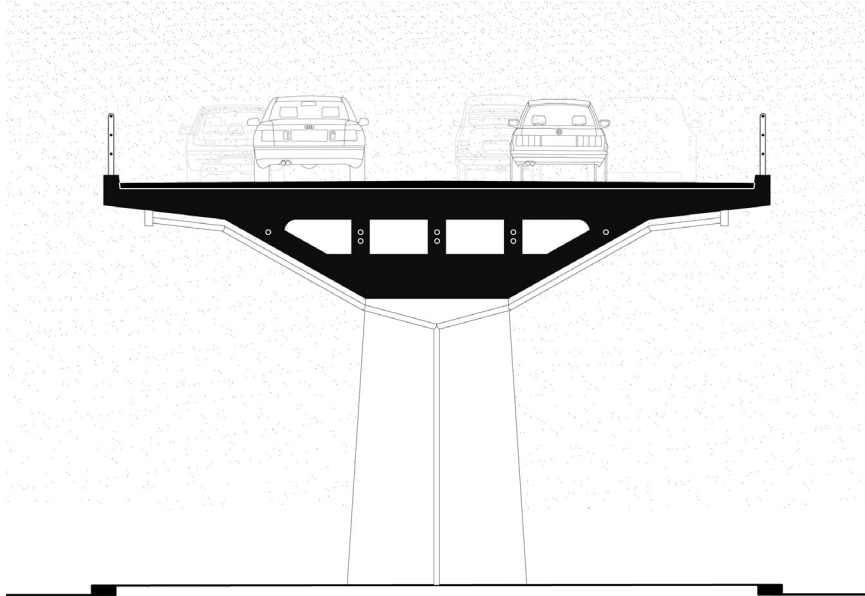
On the other hand, such a space – far from being abandoned or forgotten – is continuously crossed and stressed by mechanical agents simultaneously responsible for its inhabitable character – pedestrians are forbidden – and contributing to the development of an unplanned ecosystem. Along the elevated roadside, motor vehicles act as carriers and triggers in the dissemination process.

Like animals and atmospheric or artificial agents, humans can act as “fundamental vectors” (Clément 1999, p. 45) of biological encounters across different ecosystems; accordingly, we recognize the role of cars in propagating wild nature in the city. A principle of transgressive coexistence is already taking place – and gaining space – against functional rules and in the absence of any project or remediation plan.

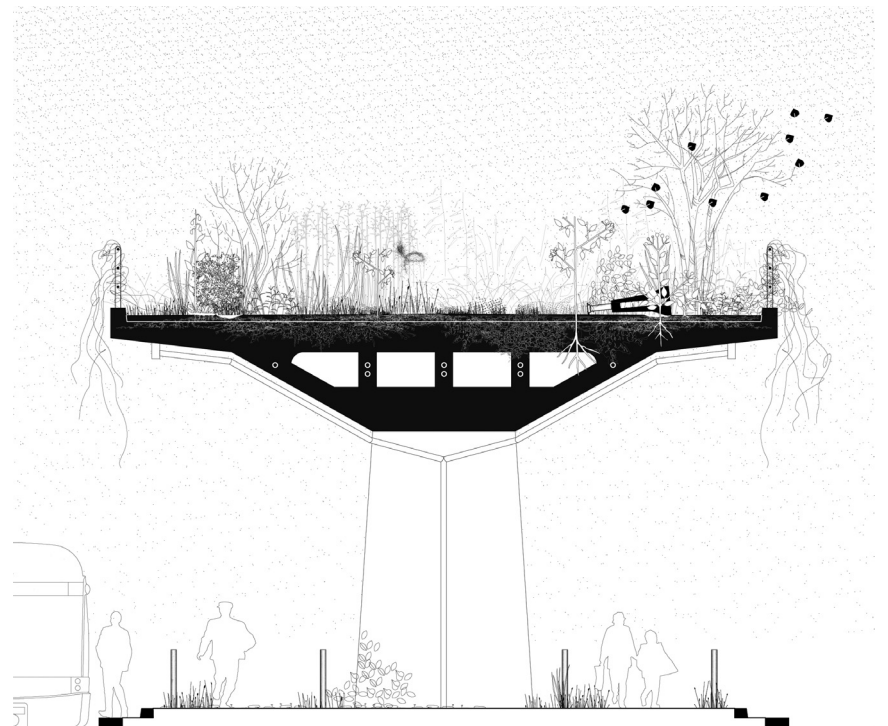
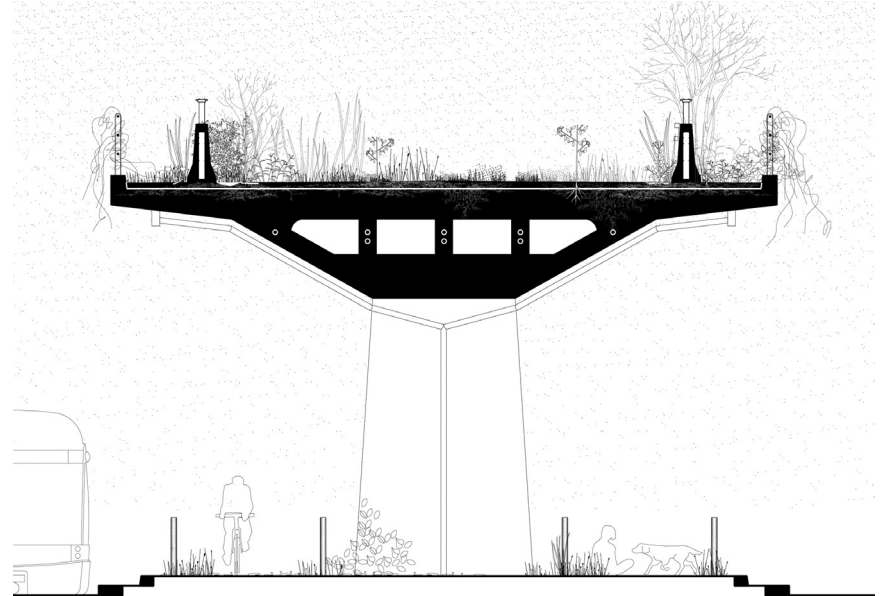
DRAWING FUTURE SCENARIOS FOR THE CORVETTO FLYOVER

The Corvetto Flyover lies at the core of an ongoing public debate around the future of such spaces included by the PGT “Milano 2030” in a broader network of regeneration areas. As the flyover’s destiny stands between its reuse or demolition, several proposals foresee a transformation traceable to the New York High Line offspring. Facing such a genealogy, this contribution takes a step back. The aim is to bring light to the ecological potential of the flyover concerning its use before contemplating its abandonment and any consequent design operation.

Corvetto Flyover, cross sections. From top to bottom, left to right:
 The original structure: form follows function.
 State of affairs: the unexpected sets its roots.



Short-term scenario: the roots grow
 Mid-term scenario: transgression as a new ecology
 Drawings by Andrea Foppiani and Davide Montanari, 2023.



From a critical re-examination of the artifact – started from a redrawing process and a study of the typical flyover section – the imaginative potential related to future scenarios of further convergence between machinic landscapes and urban nature emerged. Representing the Corvetto Flyover through its transverse section unveils – in the relationship between its structural solids and voids – a hidden stratigraphy: asphalt, reinforced concrete, roots, ground, and water infiltrations, altogether contributing to “initiate the biological processes that transform a mineral substrate into a living soil.” (Galí-Izard et al. 2022, p. 67)

Studying unforeseen flyover ecologies within the Milanese context allows for a more systematic reflection. As a recurring typology in the radial set of high-speed infrastructures grafted directly into the urban fabric, flyovers like Ghisallo, Monte Ceneri, and others share the same hidden potential of Corvetto.

The spontaneous dynamics acting over time on the flyover microcosm expand its role beyond the technical-infrastructure perspective, making it a terrarium. A future where these artifacts, triggered by urban ecological processes, gain a condition of autonomy from their original meaning represents a relevant act of transgression. Such behavior grants transgressive terrariums a degree of biodiversity and antifragility that can challenge the urgency and the field of action of any planned design action.

Corvetto Flyover, *unexpected infrastructural ecologies outside the car window*. Photo by Andrea Foppiani, 2023.

