

1 **Infrastructure as Art. The principle of mimetism as a** 2 **paradigm through which to read the architectural and** 3 **artistic intervention in the landscape and in the city**

4
 5 *The image that shapes the conceptual framework of this article is the experience*
 6 *of the road trip undertaken by minimalist artist Tony Smith with his students along*
 7 *the New Jersey Turnpike, a highway undergoing construction in the American*
 8 *suburbs. The narrative of this nocturnal journey, published in Artforum magazine*
 9 *in December 1966, prompts the question of the dual aesthetic nature of the road.*
 10 *On the one hand, the road can be considered an infrastructure, an architectural*
 11 *element inserted into the landscape. On the other hand, the road can be regarded*
 12 *as a route, an abstract sign that crosses the landscape, drawing it. The question*
 13 *thus arises as to how the road should be considered: “as an object or as an*
 14 *experience? As a space or as the act of crossing? What role does the landscape*
 15 *around it play?” (F. Careri). The relationship between architecture,*
 16 *infrastructure and the art world offers a unique perspective to explore the*
 17 *interaction between built space, landscape and culture. This article investigates*
 18 *from different perspectives the link between infrastructure as an architectural*
 19 *object and artistic interventions in open space, highlighting how they both find*
 20 *their primary field of intervention in the landscape.*

21
 22 **Keywords:** *Architecture, Infrastructure, art, land art, mimetism*

23 24 25 **Introduction**

26 27 *Outline paper structure*

28
 29 The theme of this article is infrastructure as art, investigated from the image-
 30 guide of artist Tony Smith's experience-travel on a highway under construction. The
 31 introduction analyzes the dual nature of the road and, in general, of infrastructure as
 32 object or experience, starting with Francesco Careri's reflections in the book
 33 *Walkscapes. Walking as aesthetic practice*¹.

34 In the second chapter, the literature review presents the landmark
 35 interdisciplinary theories that form the foundations of the research and also
 36 demonstrate its specificity: from Lawrence Halprin's concept of “Traffic
 37 Architecture,” a form of design that recognizes the highway as a spatial and cultural
 38 device, through the reinterpretation of Sigfried Giedion's concepts to a form of
 39 ‘mimetism’ to art theorist Rosalind Krauss's “expanded field,” which investigates
 40 the expansion of sculpture into architecture and landscape. An entropic and layered
 41 landscape, like the one theorized by Robert Smithson.

42 In the third part, the applied methodology, given by the intersection of
 43 architectural and art theory, design culture, visual, and landscape and city studies, is
 44 exposed. The critical-theoretical approach presents infrastructure as a cultural
 45 artifact, along with being a symbolic and spatial field. This is followed by the

¹Careri, F. *Walkscapes. Camminare come pratica estetica*. (Torino: Einaudi, 2006).

analysis of six case studies – the High Line, the Promenade Plantée, Superkilen, The Rail Park, Double Negative, Spiral Jetty, and the pedestrian bridge over the Carpinteira River in Covilhã – examples of infrastructure and art in dialogue with the landscape and the city.

In the fourth part, the research results demonstrate the role of infrastructure as an aesthetic device for reading the landscape, in line with the concept of “artsapes” expressed by Luca Galofaro, understood as an architectural intervention mediated by an artistic approach.

Finally, the conclusions demonstrate the emergence of a new design posture, based on linguistic and operational hybridization, and the ability of infrastructural architecture to create new meanings.

Tony Smith's Journey on the Turnpike under Construction

In the late 1950s, Tony Smith (South Orange, 1912 – New York, 1980), minimalist artist, architect, and designer, entered a construction site with three students from Cooper Union University, where he taught, and takes a road trip along the New Jersey Turnpike, a highway under construction on the outskirts of New York. Of that journey, from exit 16 at Meadowlands to exit 9 at New Brunswick, during the night and in complete darkness, without road signs, markings, edges, or lines to indicate the path, what the artist remembers most vividly is: “the dark pavement moving through the landscape of the flats, rimmed by hills in the distance, but punctuated by stacks, towers, fumes, and colored lights”.²

This memory-image, the smooth flow over a black, flat surface, a trace and also a void in the anthropized landscape, is visually counterbalanced by distant vertical structures, refineries, power plants, and oil tanks. The environment traversed by Smith is an urban-industrial context, where the coexistence of infrastructure and nature leads the gaze to contemplate a layered and multifaceted landscape. In this sense, “the infrastructure was not only at the service of transport: it associated locomotion with perception of the landscape it forged”.³ About a decade later, in December 1966, *Artforum* published what has since become a well-known account of that journey. Its relevance lies in the fact that a banal and common car trip, albeit illegal, had expanded the boundaries of artistic experience, provoking a methodological and conceptual shift in the relationship between art, architecture, infrastructure, and landscape, and in doing so, contributed to expanding the very definition of art.

Indeed, during those years, many artists began to appropriate the language of architecture, Gordon Matta-Clark for example, or to intervene directly in peripheral contexts, as did Robert Smithson; others, like Lawrence Weiner, used language as a sculptural form. These radical practices, spatial, conceptual, and often site-specific, of such magnitude to create a tabula rasa of traditional artistic categories and their definitions.

²Wagstaff, S. Jr, ‘Talking with Tony Smith’, *Artforum*, (December, 1966), 19.

³Trévelo, P. A., Viger-Kohler A., (eds.) *The Earth is an Architecture* (Leipzig: Spector Books, 2021), 39.

Smith's experience on a highway under construction can thus be seen as aligned with the practices of these artists, as the act of crossing challenged conventional artistic categories and, most significantly, dissolved the boundary between art and the everyday event. The artist himself recalls that specific drive as "a revealing experience"⁴ so powerful that it became both a symbol and paradigm of a new way of making and perceiving art, in relation to the space and of the landscape traversed.

Smith, a polyhedric figure

Tony Smith, often referred to as "the elder of American Minimalist art"⁵, is in fact not a widely known figure, as he frequently operated on the margins of the institutional art system. What distinguishes him, however, is the versatility of his practice, which spanned from sculpture, architecture, design, and teaching. The initials of his full name, Anthony Peter Smith, were interpreted by the artist himself as shorthand for "architect, painter, sculptor"⁶. As David Salomon argues, "while it is true that he had the most success as a sculptor, his experience as an architect offers greater insight into his epiphany on the turnpike".⁷

A few biographical notes are necessary to frame Smith's transdisciplinary practice. In 1937, he left South Orange and moved to Chicago to study architecture at the New Bauhaus, where László Moholy-Nagy was one of his instructors. A year later, he began working at Frank Lloyd Wright's studio, and in 1940, he established his own architectural practice in New York, deeply influenced by the work of Le Corbusier, Buckminster Fuller, and Wright himself.

Around the age of fifty, Smith began producing small-scale sculptural objects and larger models in paper and cardboard, formal experiments that would later position him among the founders of Minimalism, with works now held in major museums around the world.

Shortly after the turnpike journey, the artist moved to Germany, abandoned architecture, and devoted himself to painting but also to exploring abandoned airstrips and Second World War ruins, evocative of those "ruins in reverse" and those "new monuments" theorized by Robert Smithson during his walks through the peripheries of Passaic.⁸

The dual aesthetic nature of the road

The significance of the narrative surrounding this nocturnal journey, chosen here as the guiding image and opening of this article, lies in the questions it raises about the dual nature, both aesthetic and conceptual, of the road-object.

⁴Wagstaff, S. Jr, 'Talking with Tony Smith', *Artforum*, (December, 1966), 19.

⁵Careri, F. *Walkscapes. Camminare come pratica estetica*. (Torino: Einaudi, 2006), 87.

⁶Salomon D. 'The Highway Not Taken: Tony Smith and the Suburban Sublime', *Places Journal*, (September, 2013). Accessed 10 Jun 2025.

⁷Ibid.

⁸Salomon D. 'The Highway Not Taken: Tony Smith and the Suburban Sublime', *Places Journal*, (September, 2013). Accessed 10 Jun 2025.

On one hand, when viewed as infrastructure, the road is an architectural element with precise structural characteristics. It is a trace-mark in the landscape, cutting through and crossing it, defining a specific space, measuring it, and distinguishing it from everything around it. As a trace, it is the object over which movement occurs; its presence draws and measures space through its own linearity. In this sense, it functions as an object designed to facilitate movement from one place to another.

On the other hand, the road can also be seen as an abstract line traversing the landscape, a conduit for an ephemeral action, simultaneously index of movement and surface of displacement. In this regard, the road becomes an experience.

In 1969, these issues were echoed in the exhibition “Live in Your Head: When Attitudes Become Form. Works – Concepts – Processes – Situations – Information”, curated by Harald Szeemann at the Kunsthalle Bern. The show, now a cornerstone in exhibition-making history, emphasized attitude and process, exploring how artistic experience itself could become form.

Even earlier, in 1941, Sigfried Giedion, at the conclusion of *Space, Time and Architecture*⁹, celebrated the American Parkways, highlighting their anticipatory role for contemporary cities and their boundless freedom of movement, elevating them to a new form of art, a view that, in many ways, foreshadowed discussions surrounding Land Art.

Similarly, Lawrence Halprin, in his 1966 book *Freeways*, wrote:

“Freeways out in the countryside, with their graceful, sinuous, curvilinear patterns, are like great free-flowing paintings in which, through participation, the sensations of motion through space are experienced. In cities the great overhead concrete structures with their haunches tied to the ground and the vast flowing cantilevers rippling above the local streets stand like enormous sculptures marching through the architectonic caverns. These vast and beautiful works of engineering speak to us in the language of a new scale, a new attitude in which high-speed motion and the qualities of change are not mere abstract conceptions but a vital part of our everyday experiences¹⁰”.

In light of this, after reading Smith’s account, a number of critical questions naturally emerge concerning the double nature of the road, questions that Francesco Careri addresses in his 2006 book *Walkscapes. Walking as an Aesthetic Practice*. How should we consider the road? “Is the road a work of art, or is it not? And if it is, in what way? As a large ready-made object? As an abstract sign that cuts through the landscape? As an object or as an experience? As a space in itself or as the act of crossing it? What is the role of the surrounding landscape?”¹¹.

The journey along that unfinished highway opened up a set of reflections that extended beyond the road itself to embrace the very nature and meaning of art. Indeed, Gilles Tiberghien, the French philosopher, traced the origins of American Land Art to this moment, an art movement built on actions and interventions in the landscape, on various scales, from deserts to urban voids and city peripheries.

⁹Giedion, S., *Space Time and Architecture: The Growth of a New Tradition*. (Cambridge: Harvard University Press, 1941).

¹⁰Halprin, L., *Freeways*. (New York: Reinhold Publishing Corporation, 1966), 17.

¹¹Careri, F. *Walkscapes. Camminare come pratica estetica*. (Torino: Einaudi, 2006), 88.

1 From the 1960s onward, these heterogeneous practices expanded the very
 2 definition of art, pushing it into what Rosalind Krauss called the “expanded field”,
 3 a territory where art began to engage in active dialogue with architecture and
 4 landscape.

5 A seminal example conceptually aligned with Smith’s road journey is Richard
 6 Long’s *A Line Made by Walking* (1967). The simple act of walking across a field
 7 assumed a methodological and conceptual significance, transforming a common
 8 activity into an artistic gesture¹². The trace of that act—captured in a black-and-
 9 white photograph—challenged the very notion of the artwork itself, just as Smith’s
 10 Turnpike trip had done: Is the artwork the walk or the photograph? The journey or
 11 the story that documents it?

12 These reflections remain intentionally open, to emphasize that, in the wake of
 13 Smith’s experience, many radical interventions emerged, reshaping how we
 14 interpret the relationship between art, architecture, and landscape, ultimately
 15 transforming our perception.

16 As a consequence, Smith’s nocturnal drive along the unfinished highway
 17 becomes embedded in a broader historical and critical context. Why, in this
 18 particular case, could a simple and everyday act like driving be considered art?

19 The answer lies in time and perception. During that movement, the spatial
 20 perception of perspectives, viewpoints, colors, sounds, occurred over an extended
 21 duration, not in a single glance as when one observes a static painting on a wall. The
 22 experience of the journey could not be localized to a fixed point in space; rather, it
 23 was inseparable from the motion itself, which, animated by an intrinsic dynamism,
 24 placed Smith’s body in relation to constantly shifting spatial and geographical
 25 contexts.

26 Thus, the dual nature of the road comes into focus: not merely as infrastructure,
 27 which functions by definition as a tool for reaching one place from another, but as
 28 experience, something that has little to do with utility. As Smith himself wrote:

29
 30 “The road and much of the landscape was artificial, and yet it couldn’t be called a
 31 work of art. On the other hand, it did something for me that art had never done. At first
 32 I didn’t know what it was, but its effect was to liberate me from many of the views I
 33 had about art. It seemed that there had been a reality there that had not had any
 34 expression in art. [...] There is no way you can frame it, you just have to experience
 35 it¹³”.

36
 37 This concept of experience, understood as the relationship between body and
 38 space, and thus between movement, infrastructure-architecture, and art, offers a
 39 unique lens through which to explore the interplay between built space, landscape,
 40 and cultural meaning.

¹²Other Land artists explore the relationship between landscape and art through walking such as Walter De Maria with *One Mile Long Drawing* (1968), Bruce Nauman with *Slow Angle Walk* (1968), Carl Andre with *Secant* (1977), Christo with *Wrapped Walk Way* (1978) and *Running Fence* (1976). In these works the theme of the path is expanded by the dialectic between the physical geometry of space and the bodily experience of movement.

¹³Wagstaff, S. Jr, ‘Talking with Tony Smith’, *Artforum*, (December, 1966), 19.

The aim of this article, therefore, is to investigate the role of infrastructure as art, drawing from both art and architectural discourses and the intersection of key theoretical perspectives within each. In particular, Halprin's principle of "mimetism" and Krauss's theory of the "expanded field" are proposed as the two main paradigms through which to analyze architectural-artistic interventions in the landscape.

The analysis of selected case studies will demonstrate that such interventions can no longer be defined through rigid or static definitions. In this sense, Tony Smith's Turnpike narrative and the road-object that opens this article serve not only as a symbolic image but also as a methodological device, framing the themes discussed within a broader conceptual framework while reflecting the interdisciplinary nature of the approach, situated between art criticism and architecture. The landscape, the city, and the bodies that inhabit them remain the central focus of this inquiry.

Literature Review

From the Hybrid Space of Lawrence Halprin's Traffic Architecture to Mimetism

In the 1960s, Lawrence Halprin's interest in urban highway infrastructure stood out for its radically different design vision compared to the prevailing functionalist engineering of the time. In his book *Freeways*¹⁴, Halprin introduced an approach that might be defined as "Traffic Architecture", a mode of design that conceives the freeway not merely as a technical device, but as a spatial and cultural structure capable of generating new relationships between bodies, architecture, landscape, and the city. Within this framework, the highway is not simply a trace, it can become a "hybrid space", positioned between infrastructure and landscape, between a place of movement and one of experience.

Building on these ideas, we can derive today an additional conceptual tool: that of "mimetism", not as the will to disappear into or camouflage within the context, be it natural or urban, but rather as a form of "active mimetism". In Halprin's vision, architecture has the ability to read, recognize, and enhance existing signs — natural, architectural, infrastructural, or social — and transforms them into lived spaces. Infrastructure becomes part of the context itself: an "urban fact" containing formal, ecological, and perceptual potential. The freeway is thus reimaged as an opportunity to design with "what is already there", in continuity rather than rupture.

Halprin's work invites us to read the highway as mimetic: as part of an artificial context or landscape that visually and functionally integrates with the natural or urban environment. As opposed to the elevated highway traced over a territory as the shortest line connecting two points, he proposes routes that follow the local topography, integrating plant elements, pedestrian paths, scenographic ramps, architectural forms, rest areas, and viewpoints.

The notion of "hybrid space" also connects to Halprin's experiential and participatory design vision, developed in parallel with his wife, dancer and choreographer Anna Schuman. The moving body, a central element in their urban participation workshops, also becomes a paradigm for reading highway space: not

¹⁴Halprin, L., *Freeways*. (New York: Reinhold Publishing Corporation, 1966).

only a space to be traversed, but one to be lived, seen change over time, inhabited visually and sensorially. His designed sequences function as landscape choreographies intended for the automobile traveler, but also for those who walk, observe, or pause. It is an immersive, performative, and environmental approach, as reflected in his writings on the kinetic experience of traveling along freeways.

A key example of this vision is *Freeway Park* in Seattle (1976), where Halprin transformed an infrastructural void into a layered urban park: green areas, water features, ramps, and stairways articulate a plane that reconnects two parts of the city divided by a freeway. Here, infrastructure is not denied or hidden, but incorporated, reinterpreted, and mitigated. The space once designed for traffic becomes a place of pause, contemplation, and play, a true public space, hybrid by definition.

Halprin's approach finds resonance with the work of Alison and Peter Smithson, particularly in their use of photography¹⁵ as a critical tool and means of documentation. Just as the Smithsons analyzed the transformation of postwar British cities through photographic collages and visual sequences, Halprin uses photography in *Freeways* to narrate the impact of highways on the American landscape. His images are not merely technical illustrations but a visual essay: they reveal contrasts, distortions, unintended forms; they expose the latent aesthetic and spatial potential of the freeway. This emphasis on visual and perceptual qualities aligns Halprin with a design tradition attentive to the lived experience of spaces and infrastructures, how they are perceived and inhabited beyond their technical function.

In summary, Halprin's "Traffic Architecture" represents a pioneering attempt to reimagine infrastructure as a hybrid, mimetic, and participatory space, capable of fostering new forms of coexistence between mobility, nature, and the city. The freeway, for a long time a symbol of urban alienation and territorial rupture, becomes instead fertile ground for a form of design that is sensitive, ecological, and profoundly human.

Sculpture in the Expanded Field – Rosalind Krauss (1979)

In the spring of 1979, American art critic Rosalind Krauss formulated the concept of the *expanded field* to frame the methodologies of artists who, during those years, were extending their fields of action toward architecture and landscape, a shift that naturally led to the explosion of disciplinary and formal boundaries within which sculpture had previously operated.

In December of the same year, *Artforum* published Krauss's now-canonical theoretical essay *Sculpture in the Expanded Field*¹⁶. The text proved both disruptive and highly influential, as it demonstrated how the sculptural object had expanded toward architecture and landscape, a tendency that characterized many artistic practices of that period.

Krauss critically examined the modernist definitions of sculpture, particularly the binary concepts of "not-architecture" and "not-landscape". Until that moment,

¹⁵See for example the experimental structure and juxtaposition of texts and images of the book *Team 10 Primer*. Smithson Alison (ed), *Team 10 Primer*. (Cambridge: MIT Press, 1969).

¹⁶Krauss, R., 'Sculpture in the Expanded Field', *October*, 8 (December, 1979).

sculpture had been defined as everything that was neither architectural (i.e., not built) nor landscape (i.e., not natural). Thus, “not-architecture” referred to the natural realm, while “not-landscape” referred to the built, the artificial. However, this very dichotomy between constructed and unconstructed marked the threshold explored by artists at the time. Since these works could not be classified under traditional sculptural definitions, they remained suspended in a no man’s land, awaiting new terminology.

Krauss’s structuralist and analytical perspective materialized in the application of Klein’s mathematical expansion model to art, a drawing-diagram composed of three progressively complex configurations that visualized the expanded field in which sculpture operated during the 1960s. The binary structure that had defined modernist sculpture — not-architecture and not-landscape — expanded into a field that now included the positive categories of architecture and landscape. According to this view, if the negative pairings defined sculpture’s neutral territory, the positive pairings mapped the space of place-making.

The concept of complexity, as used by Krauss to describe the relationship between architecture and landscape, signals a profound methodological transformation, both operational and conceptual. In artistic practice, this complexity defined the formal nature of the intervention: no longer self-referential, but expanded, in dialogue with the landscape. Krauss used complexity to describe relational dynamics, highlighting how art and architecture were no longer operating on separate planes but instead engaging on shared ground. Her theory introduced a new parameter for defining a distinct category of works that could no longer be described using traditional aesthetic frameworks.

As a result, the term sculpture was extended into three categories: *Marked sites* (a combination of landscape and not-landscape), *Site-constructions* (a combination of landscape and architecture), and *Axiomatic structures* (a combination of architecture and not-architecture), all of which emphasize the formal and conceptual complexity of these practices. In this sense, the concept of expansion applies not only to the spatial realm in which sculpture operates, but also to the artistic language itself.

In this context, Krauss spoke of a “reinvention of the medium”¹⁷, since the artwork could no longer be defined by a singular, specific medium—such as painting or sculpture—but rather through a set of logical operations conceived as an expanded structure of forms, materials, and most importantly, sites.

Starting in the 1960s, movements such as Land Art, Earth Art, and Environmental Art brought about a new material paradigm: landscape itself—desert expanses, peripheries, infrastructure—was elevated to the status of primary artistic medium. In a broader sense, the landscape was transformed from something to be observed into a material for design. In this regard, the perspective of artist Michael Heizer is particularly significant: “Museums and collections are full, their floors are collapsing—but real space exists”¹⁸.

¹⁷Grazioli, E., (ed.), *Reinventare il medium: cinque saggi sull'arte di oggi*. (Milano: Bruno Mondadori, 2005).

¹⁸Kastner, J., *Land Art e Arte Ambientale*. (Londra: Phaidon 2004), 14.

Hybrid Figures: Mimetism and Expanded Field in the Design of Infrastructures

In contemporary studies on infrastructure, its design, perception, and spatial agency, two theoretical frameworks emerge as essential tools for interpreting current transformations: “mimetism”, as a mode of contextual adhesion and continuity, and the “expanded field”, as a way to transcend traditional disciplinary categories. These two approaches reveal a fertile complementarity: although articulated in different languages, both contribute to redefining the role of architectural and infrastructural artistic interventions in open space, whether urban, infrastructural, or natural.

Mimetism, in the work of Lawrence Halprin, should be understood as a critical strategy for reading, recognizing, and absorbing the existing context, and it manifests in two distinct ways, depending on the setting in which the infrastructure is placed.

In the natural landscape, infrastructure, highways, viaducts, road systems, is conceived as a plastic and sculptural object, capable of engaging with the territorial scale and the morphological and vegetative elements of its environment. Here, the intervention resembles a work of Land Art, where infrastructure is staged as a visual and symbolic presence: a mimetic sign that amplifies the perception of the landscape, becoming part of it by helping to define it. The photographs published in Halprin’s *Freeways* (1966) clearly reveal this visual and compositional sensibility, similar to that of his contemporary Land Artists.

In the urban context, however, infrastructure confronts itself with the density of the built environment, side streets, sidewalks, plazas, buildings, and engages a slower and pedestrian mobility. In this setting, Halprin transforms “Traffic Architecture” into an urban hybrid space, where architecture, infrastructure, and public space merge. Projects such as *Freeway Park*¹⁹ in Seattle (1976) exemplify this capacity for hybridization: here, the infrastructure is colonized, sectioned, and reinterpreted as artificial topography, urban park, perceptual and choreographic system. The freeway is integrated into the urban-hybrid system, folded into a design language that is at once architectural, landscape-oriented, and artistic.

It is precisely within this contextual duality that Halprin’s approach converges with Rosalind Krauss’s reading in *Sculpture in the Expanded Field* (1979). Krauss offers a conceptual framework capable of interpreting works that elude traditional definitions of sculpture, architecture, or landscape, situating them in a complex and interstitial space. The “expanded field” of sculpture operates, like Halprin’s infrastructure, within a fluid terrain that bridges landscape/non-landscape and architecture/non-architecture.

In this light, the bridge between “mimetism” and the “expanded field” becomes evident: in natural settings, infrastructure acquires symbolic and artistic values reminiscent of Land Art (visual mimetism, territorial scale, the iconicity of the gesture); in urban contexts, it engages in dialogue with architecture and the forms

¹⁹Umani, V., “The Role of Architecture in Overcoming Barriers: From Ronald Rael’s Teeter Totter over the US-Mexico Border to Lawrence Halprin’s Freeway Park Designed over the Seattle Freeway”, *Athens Journal of Architecture*, (October 2023), 367-386.

of the city, generating hybrid spaces, site-constructions, and complex systems that embody the notion of constructed places.

This dual operational register, landscape and urban, makes Halprin's work a paradigmatic case of "expanded field" logic applied to infrastructure. The freeway is no longer an intruder, but rather a plastic material to be transformed, a hybrid design device that reconciles mimetism with disciplinary expansion. As Tony Smith had already demonstrated through his journey along the unfinished Turnpike, this reflection exists precisely in the tension between absorption and rupture, continuity and hybridization, a tension that introduces the theoretical framework for the case studies that follow.

Methodology

This essay adopts a qualitative and interdisciplinary methodology, positioned at the intersection of architectural and art theory, design culture, visual studies, and urban and landscape studies. Rather than applying a purely historical or technical perspective, the research is grounded in a critical-theoretical approach that does not view infrastructure as a neutral system isolated from its context, but as a cultural artifact, a symbolic and spatial field open to reinterpretation.

The theoretical foundations of the text are drawn from conceptual tools originating across multiple disciplines. From the field of art, it draws on Rosalind Krauss's notion of the "expanded field," which finds formal expression in Tony Smith's journey along the unfinished Turnpike, as well as in Robert Smithson's concept of the entropic and stratified landscape. Conversely, disciplinary reflections from architecture, particularly those focusing on infrastructure as a form-process, are informed by figures such as Sigfried Giedion and Lawrence Halprin. Their interpretations of infrastructural objects, especially the highway as something that transcends its purely technical and functional aspects, serve as a foundational principle for this inquiry.

The study also presents a visual and comparative analysis of international case studies that blur disciplinary boundaries and place the definitions of art, architecture, and infrastructure in tension, merging them freely. On one hand, projects such as the *High Line*, *Promenade Plantée*, *Superkilen*, and *The Rail Park* illustrate how these spaces interact with the urban context. On the other, works such as *Double Negative*, *Spiral Jetty*, and the Carpinteira footbridge in Covilhã demonstrate how they engage with the landscape.

These selected cases are not treated as closed objects, but as narrative structures that reinterpret the city and the landscape, transforming or revealing them. The analysis follows a montage-based logic, juxtaposing artistic and architectural works, built forms and territorial processes, in order to trace a series of design attitudes that reframe infrastructure as a sensitive, ecological, and mnemonic construct.

Case Studies

Infrastructure and Art in Relation to the City

1 In the contemporary urban context, abandoned or marginal infrastructures, such
 2 as railways, highways, and viaducts, are increasingly becoming objects of artistic
 3 and landscape reinvention, following hybrid logics that fully align with the
 4 frameworks of the “expanded field” and “critical mimetism” previously outlined.

5 Unlike interventions in natural landscapes, in the city these infrastructures do
 6 not confront geologic elements or vegetation, but rather urban architecture, traffic
 7 systems, social dynamics, and open public spaces. Their reuse generates spaces that
 8 are no longer purely functional, but performative, experiential, and symbolic,
 9 capable of activating new modes of perceiving the urban environment.

10 The High Line²⁰ in New York, designed by Diller Scofidio, Renfro and Field
 11 Operations, is a former elevated railway now transformed into a new type of hybrid
 12 urban space, suspended between pedestrian infrastructure, linear park, architectural
 13 promenade, public art gallery, and stage for social interaction.

14 The transformation of the High Line focuses on the mimetic continuity with the
 15 existing structure: the original tracks are preserved and reinterpreted, and the
 16 materials dialogue with the site’s industrial past. At the same time, the design
 17 introduces elements of rupture: mobile seating, framed urban vistas (almost
 18 cinematic), and performative spaces. The result is a cultural landscape within the
 19 expanded field, where infrastructure is not only traversed, but also staged.

20 This dimension is directly linked to the concept of “site-constructions²¹”
 21 theorized by Rosalind Krauss, and to the way Halprin had already envisioned
 22 infrastructure as a scenic support for the body and collective experience (as in his
 23 choreographic parks). The High Line becomes an urban experiential device, where
 24 a performative vision and slowed mobility allow for a different narration of space
 25 and a renewed form of engagement with the city.

26 A forerunner of the High Line, the Promenade Plantée in Paris reimagines a
 27 disused railway as an elevated linear park. Here too, we find a mimetic dialogue
 28 with the existing infrastructure, but one that is more discreet, rooted in vegetation
 29 and landscape transitions. It is an emblematic example of silent continuity with the
 30 city, where infrastructure dissolves into parkland without losing its structural
 31 identity.

32 Superkilen²² in Copenhagen, designed by BIG, Superflex, and Topotek1,
 33 represents a more radical case, where the urban reuse of a traffic corridor becomes
 34 an explicitly artistic and political gesture. Through the inclusion of objects,
 35 furnishings, and symbols from around the world, the project constructs a
 36 performative and identity-based urban landscape that relates not only to physical
 37 infrastructure but also to the social composition of the surrounding neighborhood.
 38 Here, the infrastructure is transformed into a stage for collective identity,
 39 transcending its functional role to become a message.

²⁰Shapiro, G.F., “Osservare, muoversi e riunirsi: le funzioni dell’High Line, *Domus Web*, (June 10th 2011). Accessed June 10th 2025.

²¹Krauss, R., ‘Sculpture in the Expanded Field’, *October*, 8 (December, 1979), 41.

²²“Superkilen / Topotek 1 + BIG Architects + Superflex”, 25 Oct 2012. *ArchDaily*. Accessed 10 Jun 2025.

1 Lastly, The Rail Park²³ in Philadelphia, still under development, draws direct
 2 inspiration from the High Line but places greater emphasis on local memory and
 3 community engagement. It takes shape as a social and environmental workshop,
 4 redefining the relationship between infrastructure and public space through a
 5 participatory and experiential approach.

8 **Infrastructure and Art in Relation to the Landscape**

10 If in the city the infrastructure is confronted with built and social space, in the
 11 natural landscape it is measured by the spatial scale, geological matter and sensory
 12 perception of open space, in relation to light and the passage of time. Here, artistic
 13 or design intervention takes on deeper, immersive, almost archetypal forms, in
 14 which the distinction between infrastructure, sculpture, architecture and landscape
 15 dissolves.

16 As expressed by critic Krauss in the context of her theory of the “expanded
 17 field,” the landscape becomes the medium and matter of intervention, and in this
 18 sense, installations such as Heizer's *Double Negative* or Smithson's *Spiral Jetty* are
 19 not works-objects placed in the landscape and unconnected to it, but geographic,
 20 territorial operations that, albeit with different methodologies, fuse the languages of
 21 sculpture, engineering, and architecture to transform the space itself.

22 Unlike urban cases, here the mimicry is not only aesthetic or functional, but
 23 geological, spatial, perceptual: the artistic intervention integrates into the natural
 24 morphology of the landscape by highlighting and redefining its latent signs.

25 After the first works made in his own studio, Michael Heizer went outside into
 26 the desert, whose boundless surface lent itself to be used as soft, moldable material.
 27 Here the artist experiments with material operations of substitution, dispersion, and
 28 deterioration of the sculptural object. Emblematic case is *Double Negative* (Nevada,
 29 1969), an iconic work that visualizes the principles of negation and dislocation.
 30 Through the removal of matter, the artist reveals an empty space, the negative of the
 31 work itself, creating a sculpture by subtraction, trace-immaterial, at once presence
 32 and absence, that reveals its dual nature: “the title Double Negative is impossible.
 33 There is nothing there, yet this is also a sculpture²⁴”. The operation involved
 34 excavating two 15-meter-deep chasms on both sides of a narrow canyon on the
 35 banks of the Virgin River Mesa in Nevada and removing 24,000 tons of sandstone
 36 and rhyolite. The only way to experience the work is to be inside, to walk around,
 37 but one will never be able to occupy the two excavations at the same time. However,
 38 even being inside one of them you can perceive the surroundings, the excavation in
 39 front, the void, the space between the two chasms.

40 The work is a negative infrastructure, an architectural wound that, precisely
 41 through absence, makes the monumentality of the landscape visible.

42 Heizer adopts a language similar to that of infrastructural engineering
 43 (excavation, earthmoving), but bends it to an experiential and perceptual logic. The

²³“The Rail Park”. Accessed 10 Jun 2025.

²⁴Kastner, J., op. cit., 29.

1 scale, silence, and emptiness of Land Art overlap with the codes of viability and
2 territorial control, generating a new form of symbolic infrastructure.

3 Differently, however, Robert Smithson, like Halprin, reads the landscape as
4 entropy and stratification. *Spiral Jetty* (Utah, 1970) is an infrastructural structure in
5 the natural landscape of Great Salt Lake, with a length of about 460 meters and a
6 width of 4.6 m. The fusion of solid and liquid elements generates a kind of walkway
7 in which rocks, mud, crystals, salts, microorganisms and water form a spiral that can
8 emerge or disappear depending on the water level. As in the case of Heizer's Double
9 Negative, the work's dimensional scale is fluctuating, depending on where you view
10 it: whether from inside, walking, from outside or from above. "Size determines an
11 object, but scale determines art²⁵", Smithson wrote in 1972.

12 Here, in fact, the infrastructure is likened to a geological and temporal device:
13 a mutating site-specific work, a fluid mass that confronts environmental forces,
14 geological time and subjective observation. The spiral becomes at once form, path
15 and concept, activating an immersive experience of space.

16 Among the most emblematic cases of dialogue between infrastructure and
17 landscape, but with a clear architectural matrix, is the pedestrian bridge over the
18 Carpinteira River in Covilhã²⁶, Portugal, designed by Carrilho da Graça. This
19 intervention demonstrates how an infrastructure can become at the same time a
20 perceptual device, a visual work and an integrated architectural form. Placed in a
21 deep valley at the edge of the urban center, the footbridge stretches more than 220
22 meters in a broken trajectory, appearing as an abstract feature suspended in the
23 landscape.

24 Although the bridge decisively marks the morphology of the valley, it does not
25 alter it, but rather interprets it as a geometric field, a topographic grid that the
26 architecture reads and transcribes. In fact, the broken design follows the curves of
27 the terrain and indulges the slopes, establishing a mimetic relationship with the
28 landscape that is not camouflage but critical interpretation. Mimimatism here does
29 not coincide with a desire to disappear, but rather with the ability to recognize the
30 latent signs of the place, its lines of force, views, natural paths, and shape them
31 through infrastructure.

32 A key element that contributes to making this work a profound hybrid of
33 architecture, infrastructure, and art installation is the color treatment of the lower
34 part of the bridge: the surface is painted black and white, as to simulate the
35 projection of light and shadow. This choice is not only aesthetic, but conceptual.
36 The bridge thus becomes an optical machine, an object that reflects, absorbs and
37 manipulates light, and at the same time an autonomous visual composition, readable
38 almost as an abstract artwork suspended between the two sides of the valley. It is an
39 architectural gesture that transcends the mere function of crossing, configuring itself
40 as a truly habitable infrastructural sculpture.

41 Within the theoretical framework of the "expanded field," Carrilho da Graça's
42 bridge sits precisely at the intersection of architecture and landscape, but it is also

²⁵Smithson, R., 'The Spiral Jetty' in Kepes G., (ed.) (1972), *Arts of the Environment*. New York: G. Braziller.

²⁶"Pedestrian Bridge / JLCG Arquitectos" 24 Jan 2011. *ArchDaily*. Accessed 10 Jun 2025.

capable of drawing on languages of visual performance and abstract sculpture, radically reconfiguring the way a territory is perceived and crossed. Not just a functional space, then, but a complex, visual, physical, symbolic experience.

Crossing it is equivalent to reading the landscape from another, elevated, dynamic perspective: the view opens onto the valley, the mountains, the city, but it does so through a built filter, an architecture that acts as a sensitive interface between body and context. In this sense, the walkway is not a neutral element, but an activator of perceptions, an intermediate place that belongs to a dimension suspended between categories, exactly as theorized by Rosalind Krauss in her notion of “expanded field.”

These examples show how, in the relationship between art and landscape, infrastructure can become an artistic work, redefining the way we perceive and inhabit territory.

It follows, then, that if in the city the infrastructure is absorbed and reinterpreted in the urban fabric, in the landscape it merges with geological matter and environmental forces, becoming a cultural form of the territory.

The cross-reading between mimetism (as critical adherence to the context) and expanded field (as transcending aesthetic and disciplinary categories) allows us to understand these works as theoretical and operational hybrids, capable of combining architecture, sculpture and landscape engineering.

Findings + Discussions

The analyses conducted on the case studies reveal a design landscape in which infrastructures are no longer just technical and functional elements, but become true aesthetic devices for reading the landscape, capable of generating sensory, visual, spatial and social experiences. Whether it is pedestrian bridges suspended in the landscape or former railways transformed into urban promenades, the works analyzed show a converging tendency toward the hybridization of the categories of art, architecture, infrastructure and landscape.

This hybridization manifests itself both on the linguistic level, in the use of formal codes borrowed from sculpture, Land Art, photography or performance, and on the operational level, in the transformation of infrastructure into lived and participated space. Infrastructure thus becomes an interstitial territory in which traditionally distinct disciplines are contaminated and reconfigured.

Emerging powerfully is a new centrality of landscape as a design medium: no longer simply a backdrop or object of contemplation, but a living, active, complex matter to be read, interpreted and transformed as the experiences of land artists demonstrate. Differently, projects such as the High Line or the Carrilho da Graça footbridge show how infrastructure can become an opportunity to explore a site-specific design typical of architecture, attentive to existing signs, capable of restoring value even to waste and ruins of modernity.

These works challenge traditional disciplinary boundaries, bringing out a more expanded, fluid role of the artist and architect. In light of this, and in line with the theory of “expanded field” that Krauss formulates in the field of art, for architecture

Luca Galofaro resorts to the concept of ‘artscape’ understood as “an intervention on the landscape mediated by an artistic approach²⁷”. Therefore, the design figure who acts in these contexts is configured as a mediator between bodies, spaces, memories and visions, an author who works in the intersection between languages and who recognizes the symbolic, performative and ecological dimension of the space in which he intervenes.

In conclusion, the case studies demonstrate that infrastructure can be reinterpreted as aesthetic devices, capable of generating meaning and beauty through form, material, light, and relationship to context. There is, therefore, an expanded field of operation in which art, architecture, infrastructure, landscape and the city overlap and hybridize, giving rise to new forms of design. Artistic and architectural intervention in open space is no longer confined to a specific language or scale, but moves fluidly between spatial scale and architectural scale, between infrastructural gesture and perceptual detail. The contemporary artist and architect assume a transversal and polyphonic role, working from context to generate complex experiences, meaningful public spaces, and new ways of living. In light of this, as Galofaro writes, “the gaze of the artist and that of the architect overlap in the space between things, in the fluid dynamics of cities and the nature-landscape that surrounds them²⁸”.

These reflections constitute the theoretical foundation for understanding infrastructure not only as a technical necessity, but as a critical and generative place, capable of reactivating territories, redefining centralities and constructing new urban and landscape imaginaries.

Conclusions

From the path traced in this article, articulated around the theme of infrastructure as art, it is clear that in contemporary design spaces, infrastructure has ceased to be exclusively a technical-functional element to become an aesthetic, symbolic and cultural device. Sigfried Giedion and Lawrence Halprin's theories converted to the principle of “mimetism” as a critical and transformative adherence to the context, and the notion of “expanded field” elaborated by Rosalind Krauss, have offered two foundational theoretical paradigms capable of bringing art, architecture and landscape into dialogue beyond the usual disciplinary categories. The important fact is that these theories elaborated in the 1960s-1970s actually refer back to, conceptually anticipating, the contemporary ones of “artscape” theorized by Luca Galofaro and Careri's reflections on the dual nature of the street discussed here at the beginning of this article.

Through the case studies analyzed – from Tony Smith's road to New York's High Line, from Carrilho da Graça's footbridge to the land art works of Heizer and Smithson – a new design posture emerged, based on linguistic and operational

²⁷Galofaro, L., *Artscape. L'arte come approccio al paesaggio contemporaneo*. (Milano: Postmedia Books, 2007), 7.

²⁸Ibid., 12-13.

hybridization, on attention to perception, time and the materiality of the landscape and the city.

In this context, infrastructure, expanded toward art, architecture and landscape, is no longer a caesura but a design opportunity: a living matter to be read, reinterpreted and choreographed. It can become a space of experience, a visual field, an active memory, a meeting place of living forms, spatial memories and future visions.

In conclusion, to recognize infrastructure as art is not to aestheticize the useful, but to reactivate architecture's capacity to create meanings. Meanings that arise from crossing, listening to the place and the desire to inhabit even what, until recently, was considered excluded from the project.

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