

Designing with Rights Translating the Rights of Nature into Spatial Practice in the Venice Lagoon

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Abstract The Venice Lagoon faces growing environmental degradation and socio-cultural erosion, while existing protection frameworks remain insufficient. This article examines the recognition of the Lagoon as a rights-bearing subject and explores how this recognition can be translated into spatial practice. Through a design-led methodology, existing practices and the Lagoon's key elements are assessed using a socio-ecological compatibility matrix informed by the rights of nature. Three territorial use modes are then addressed through the design principles of expand, transform and replace, testing how spatial practice can link legal recognition and territorial change.

Keywords Venice Lagoon. Rights of Nature. Legal personhood. Spatial design. Socio-ecological systems.

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1 Introduction

The Venice Lagoon is currently affected by processes of environmental degradation and socio-cultural erosion (Baldacci et al. 2022; D'Alpaos 2010b; Settis 2014).¹ Despite its profound ecological, historical, and cultural significance – and the pivotal role it historically played in sustaining the city economically, socially, and productively (Calabi, Galeazzo 2015) – the Lagoon and its islands are now increasingly neglected and devalued by both institutions and local communities. This neglect is evident in processes of abandonment, the marginalisation of residents amid mass tourism, and the growing exposure to extractive dynamics associated with navigation, port expansion and tourism-led economies, all of which increasingly challenge the Lagoon's fundamental role as a living, evolving and productive territory (Pedrocco 2013). Recent scholarship has interpreted the contemporary transformation of Venice through the lens of urban extractivism and touristification, describing the Lagoon and the city as progressively subjected to processes of commodification, dispossession and socio-ecological erosion linked to mass tourism, infrastructural expansion and the increasing dominance of monocultural tourist economies (Salerno 2018; 2022; Guaraldo 2021). A key consequence of these dynamics is the progressive weakening of the Lagoon's socio-ecological resilience, increasing the vulnerability of areas deprived of their historical, economic and social functions to abandonment, exploitation and ecological deterioration (Palmer 2022).

The dynamics of exploitation affecting the Lagoon primarily take the form of indirect pressures. Rather than being exploited as resources in themselves – although this occurs in specific cases, such as the commodification and sale of islands – the Lagoon and its islands are mainly impacted by external activities rooted in broader economic systems. These include industrial navigation, port expansion and mass tourism, which instrumentalise the Lagoon while generating cumulative environmental and socio-spatial pressures as a secondary effect.

At the forefront of these challenges is widespread pollution from human activities, including the discharge of industrial, civil, and

¹ This article builds on a one-year master's thesis (2024-25) developed by Eleonora Anghileri at TU Delft, Faculty of Architecture and the Built Environment, entitled *Lagoon, Islands. The Countryside of Venice – An Interdisciplinary Exploration of the Rights of Nature as a Spatial Practice*. The thesis was developed within the master studio Transitional Territories and was grounded in a theoretical and methodological framework elaborated with Elena Longhin, who served as first mentor, and Luisa Calabrese as second mentor. The thesis is openly accessible at: <https://repository.tudelft.nl/record/uuid:f5cb2fe9-375e-4470-9862-374d99c534a7>.

agricultural effluents from mainland and island settlements – most notably the industrial area of Porto Marghera – shipping traffic, and the dispersion of contaminated sediments from dredging activities (Sfriso et al. 1992; Molinaroli et al. 2013; Zonta et al. 2007). Hydrogeomorphological alterations exacerbate the issue, driven by factors such as the excavation of industrial canals (Longhin 2022). A particularly problematic intervention is the MOSE (Modulo Sperimentale Elettromeccanico – Experimental Electromechanical Module) system, built to protect Venice from high tides, but with little regard for the Lagoon’s ecological health, thereby threatening its vitality (D’Alpaos 2010a; Vianello 2021). Compounding these environmental concerns is the sale of public heritage, including the islands and their architectural and cultural assets (Cavallo, Visentin 2021).

On top of these pressures, mass tourism accelerates resource depletion, resident marginalisation (Settis 2014), and the exploitation of ecosystems. Meanwhile, climate change poses an often invisible yet grave threat, with constant risks of flooding from higher tides, sea-level rise, and subsidence (Tagliapietra, Umgieser 2023), endangering the Lagoon’s survival.² The limitations of traditional environmental protection measures further exacerbate these critical conditions. While numerous and formally well-established, such instruments often fail to address the systemic vulnerabilities of this complex and unique water body (Mencini 2021). Conventional urban planning tools prove fragmented, technocratic, and insufficient – rigid and disconnected from the socio-ecological complexity of the places they serve. This is especially evident in the Venice Lagoon, where the local and supralocal governance landscape is highly fragmented and often ineffective. Territorial and sectoral plans exist at various scales, from international protections such as UNESCO World Heritage and Ramsar wetland designations to regional and local schemes. Yet, they frequently overlap, conflict, or prove political incoherence, under-resourced governance, and bureaucratic inertia. The result is a state of semi-permanent neglect: formally protected, yet functionally exposed to extractive pressures, infrastructural overreach, and socio-cultural erosion. This condition highlights the need for more interdisciplinary approaches to natural-cultural sustainability, capable of addressing the ecological, social, cultural and spatial dimensions of the Lagoon as deeply interconnected rather than separately managed domains.

2 See the *Nowtilus* podcast (hosted by Enrico Bettinello and Alice Ongaro Sartori), episode “Macro-maree e micro-plastiche con Luigi Cavalieri (ISMAR) e Fabiana Corami (CNR-ISP)” (1.4), 4 June 2020. <https://open.spotify.com/episode/4FhQN8xSdADWJ2W7gE51VX?si=71b13e8be5134abc>.

2 Rights of Nature: Research Context & Gap

It is within this critical context that this paper examines how emerging legal frameworks recognising the rights of nature might be translated into spatial practice, moving beyond a purely conceptual proposition towards a situated and performative act of spatial and ecological justice. The Venice Lagoon is then used as a crucial case study to do so (Omodeo, Consolandi 2025): rather than approaching it as an object of management or restoration, the paper explores the implications of treating it as a legal subject, and asks what such a shift entails for urban, territorial and design practices. Framing the Lagoon as a subject of rights re-politicises environmental protection by relocating it from technocratic regulation toward questions of civic intentionality, territorial agency and collective responsibility (Anscombe 1957; Ostrom 1990; Leopold 1949). However, while the rights of nature have gained increasing traction in legal, artistic and symbolic domains, their spatial implications remain largely underexplored. Although the legal recognition of ecosystems has advanced significantly, with numerous global initiatives and various forms of implementation (Talbot 2024), far less attention has been paid to the spatial consequences of such recognition (Jon 2020), constituting a significant research gap. Once ecosystems are recognised as rights-bearing subjects, it becomes necessary to ask how those rights are to be made legible, actionable, and enforceable within the material and spatial organisation of territories. Addressing this gap, this paper examines how the legal recognition of the Venice Lagoon can inform spatial decision-making, moving toward a relational form of regulation that accounts for non-human agencies and multispecies justice through design.

3 Theoretical Framework

Within this critical context, and in contrast to traditional forms of environmental protection, a framework grounded in the rights of nature offers a radical shift: it moves from understanding nature as a resource to be managed or restored to recognising it as a living and evolving entity whose ecological and cultural significance demands acknowledgement. Rather than framing the Lagoon as a fixed ecological object to be preserved, this research approaches it as a historically evolving socio-ecological system whose integrity depends on its capacity for transformation – and by extension, other water bodies like lagoons – as arenas of “material, social and symbolic co-production among humans and nature” through “socio-nature entanglements” (Boelens et al. 2022, 1148). This framework allows for an understanding of water bodies not merely as legal subjects,

but as dynamic socio-ecological collectives where “socio-nature river commons – intertwined social and ecological collectives – claim voice and rights as agents and subjects” (Boelens et al. 2022, 1141). Consequently, extending legal personhood to rivers, rocks and ecosystems means disrupting the human monopoly on rights. The “river-as-subject ontology” thus calls for scrutinising how, why, and with which effects rivers are approached as subjects (Boelens et al. 2022, 1139). This shift is possible because legal subjectivity is not an ontological truth, but a historical and cultural construction. From this perspective, the rights of nature operate as a conceptual and legal tool for rethinking dominant ontologies grounded in extractive and anthropocentric relations, opening space for more relational and interspecies understanding of the world (Luisetti 2023). Such a vision views humans as part of larger ecological systems, prioritising the well-being of all species in urban and natural areas and reflecting a commitment to multispecies justice. Scholars advocate for moving beyond traditional human-centred frameworks to acknowledge the inherent rights of the Earth Community to exist, thrive, and fulfil their ecological roles, fostering mutual enhancement and resilience.

Christopher Stone’s *Should Trees Have Standing?* (1972) is widely regarded as a foundational text for the rights of nature, arguing that natural entities could be recognised as legal subjects and represented through forms of guardianship. Since the early 2000s, this proposition has been tested through a growing number of legal experiments, particularly in relation to rivers and lagoons. Ecuador’s 2008 Constitution constitutionalised the rights of nature; Colombia’s 2016 Atrato River decision introduced the notion of biocultural rights and mixed forms of representation; Aotearoa/New Zealand’s 2017 recognition of the Whanganui River established a co-governance model grounded in Māori claims and relational ontology; and Indian courts’ short-lived 2017 recognition of the Ganges and Yamuna revealed the institutional and political fragilities of implementation (Burgers, den Outer 2021).³ Rather than forming a unified doctrine, these cases demonstrate legal personhood as a situated and flexible juridical device, capable of reconfiguring responsibility, representation and care in human-more-than-human relations.

In the European context, the Mar Menor lagoon in Spain represents a pivotal and unprecedented development in the institutionalisation of the rights of nature (Omodeo, Consolandi 2025; Pecharroman,

3 Kauffman, C.; Haas C.; Putzer A.; Bajpai S.; Leonard K.; Macpherson E.; Martin P.; Pelizzon A.; Sheehan L. (2025). *Eco Jurisprudence Monitor*. V2. Distributed by the Eco Jurisprudence Monitor. <https://ecojurisprudence.org/initiatives/te-awa-tupua-act-2017/>; <https://ecojurisprudence.org/initiatives/principle-of-environmental-precaution-and-its-application-to-protect-peoples-right-to-health/>.

O'Donnell 2024). Following decades of severe ecological degradation and sustained civic mobilisation, Ley 19/2022 officially recognised the lagoon as a legal subject (Giménez 2023; Ortuño, Giménez 2022; Pecharroman, O'Donnell 2024), marking the first case in Europe in which a complex aquatic ecosystem was endowed with legal personhood. The Mar Menor law explicitly frames legal recognition as a response to systemic ecological crisis, calling for an expansion of responsibility toward natural entities and for new forms of stewardship capable of addressing the limits of existing environmental governance (Epstein et al. 2023). Crucially, the case foregrounds the question of implementation. While legal subjectivity establishes a new normative status for the lagoon, it leaves largely open how such rights are to be interpreted, operationalised and enacted in territorial and spatial terms. In Venice, related initiatives are currently emerging through a broad alliance of citizen groups and interdisciplinary initiatives coordinated through the IDRA network,⁴ which are working toward the development of a Declaration of the Rights of the Venice Lagoon.⁵ The process frames the Lagoon as a socio-ecological entity entitled to legal recognition and explores the legal, institutional and territorial implications of ecological stewardship and more-than-human forms of governance.⁶ More broadly, the growing body of rights-of-nature experiments demonstrates that each recognition is shaped by the specific ecological conditions, political cultures and social struggles in which it emerges, underscoring both the situated nature of legal personhood and the unresolved challenge of translating human legal instruments into effective modes of care for more-than-human entities. This unresolved question of implementation is particularly relevant for spatial and territorial practices, which remain largely underexplored within rights-of-nature debates despite their central role in shaping ecological relations, patterns of inhabitation and long-term territorial transformation.

4 IDRA (Iniziativa per i Diritti delle Reti d'Acqua) is an activist coalition of citizen groups, researchers and cultural initiatives engaged in the protection and legal recognition of the Venice Lagoon – aimed at developing legal, institutional and territorial frameworks for recognising the Lagoon as a subject of rights.

5 The Declaration of the Rights of the Venice Lagoon was first publicly presented at Bocciofila San Sebastiano in Venice in November 2025 as part of an ongoing interdisciplinary and civic process coordinated through the IDRA network.

6 See, for example, the public programme *GENS – Public Programme Workshops* organised during the 2025 Venice Biennale, which debated several of the core principles informing the ongoing Declaration of the Rights of the Venice Lagoon process, including legal recognition, ecological stewardship, socio-ecological justice and the territorial implications of recognising the Lagoon as a rights-bearing entity.

4 Objectives, Research Question & Hypothesis

This contribution investigates the implications of designing with rights of nature as an operative framework, moving beyond legal or symbolic recognition to examine their spatial and territorial consequences. In particular, it examines how the conferral of legal rights on the Venice Lagoon could be operationalised through spatial practice, guided by the central research question: ‘If the Lagoon is recognised as a legal subject, how might its rights manifest in space?’

Anchored in this question, the study advances the hypothesis that recognising the Lagoon as a subject of rights could enable the reactivation and reconfiguration of ‘new-old’ social and productive functions within the Lagoon and its islands – operational forms that are compatible with the Lagoon’s socio-ecological integrity and capable of generating non-extractive forms of value over time. Through a design-led inquiry, the paper tests whether spatial design can support, embody and materialise the Lagoon’s rights by experimenting with the reconfiguration of selected territorial practices across the Lagoon. Grounded in a relational understanding of the Lagoon as a shared socio-ecological system shaped by heterogeneous human and more-than-human relations, the research assesses whether design can operate as a mediating practice between legal recognition and territorial transformation, contributing to new legal, spatial and cultural grounds for reconciling existing uses with ecocentric values.

5 Methodology: Translating Rights of Nature into Spatial Practice

Building on the theoretical framework outlined above, the methodology investigates how the legal recognition of the Venice Lagoon as a subject of rights might be operationalised through spatial practice. As outlined earlier, the aim is to transform the legal language of laws into spatial signs, imagining the Lagoon no longer as a passive landscape but as a living entity entitled to exist, nourish, and regenerate. Therefore, its spatial, ecological, and social arrangements must reflect and respect this new status. In this context, the prospective granting of legal rights to the Venice Lagoon is treated not as a prediction but as a working hypothesis. Rather than prescribing definitive solutions, the aim is to test a method for understanding how such a legal transformation might be translated into design practice.

5.1 Framing the Lagoon as a Rights-Bearing Composite Entity

To operationalise this framing, the methodology proceeds through two parallel analytical moves. The aim is to develop an interpretive framework, rather than a set of fixed spatial prescriptions, capable of comparatively assessing how existing territorial practices relate to the Lagoon's socio-ecological integrity and rights-oriented principles. First, it maps the functions currently operating within the Lagoon – including productive, social, extractive and commercial activities – to understand how the Lagoon is inhabited, used and instrumentalised today. This mapping raises key questions: are these functions compatible with a rights-of-nature framework? Can they be maintained, transformed, or should they be replaced?

Second, the methodology identifies and maps the constitutive elements of the Lagoon as a rights-bearing entity, including its morphologies, waters, flora, fauna and human communities. The Lagoon is thus conceptualised as a plural and relational body, whose legal personhood is embodied in both its components and the relations between them. Upholding the Lagoon's rights, therefore, entails ensuring that the practices it hosts do not undermine the integrity of these constituent elements.

These elements thus provide the basis for assessing spatial compatibility. A matrix of compatibility and incompatibility is constructed from the two sets, relating each function to the Lagoon's constituent elements through an interdisciplinary socio-ecological assessment informed by rights-of-nature principles, ecological sustainability criteria and considerations of long-term coexistence, resilience and non-extractive territorial relations. These two analytical sets – functions and constituent elements – translate the Lagoon's rights into evaluative criteria for examining existing uses. Compatibility is not understood here as fixed or absolute, but as relational and variable, depending on the intensity, spatial distribution, operational forms and long-term socio-ecological effects of specific modes of territorial use. This relational assessment does not rely on economic performance or political expediency, but on ecological and social compatibility with the Lagoon understood as a historically evolving and adaptive socio-ecological entity whose legal subjectivity is inseparable from its ongoing processes of transformation, inhabitation and ecological change. The matrix allows for a comparative and situated evaluation of the degree to which functions support, conflict with, or undermine the Lagoon's ecological resilience, biodiversity, hydro-morphological balance and capacity to sustain long-term socio-ecological relations. On this basis, three functions are selected for further exploration: one assessed as broadly compatible with the Lagoon's rights-based framework, one requiring substantial transformation, and one

considered structurally incompatible under its current operational conditions. The subsequent design phase is structured around these three cases and the spaces in which they operate, and is guided by three corresponding design principles: expand, transform and replace. This methodology is explicitly exploratory and does not claim completeness or neutrality. The three functions were selected as a situated methodological device through which to explore the implications of the proposed framework, drawing on field experience, research interests and the exploratory aims of the study. Other combinations and interpretations could be tested using the same framework. What matters most here is the method itself: an interpretive and relational tool for re-evaluating existing practices through different socio-ecological and rights-oriented perspectives.

5.2 Mapping Existing Functions

The methodological process begins with the identification and mapping of the functions currently operating within the Venice Lagoon and its islands. These practices describe how the Lagoon is inhabited, used, traversed and instrumentalised in the present, and provide a baseline for assessing its compatibility with a rights-of-nature framework.

To facilitate analysis, the identified socio-spatial functions are grouped into six broad functional domains [fig. 1], reflecting different modes of interaction between human activities and the Lagoon environment: Traditional & Productive Activities, Social & Cultural Activities, Industry & Energy, Tourism, Commerce & Trade, and Transport & Logistics. This classification is not intended to be exhaustive or definitive; rather, it serves as an analytical device for organising a heterogeneous set of practices into comparable categories. By abstracting functions from their specific locations and actors, the mapping enables a systematic evaluation of their spatial and ecological implications in subsequent analytical steps.

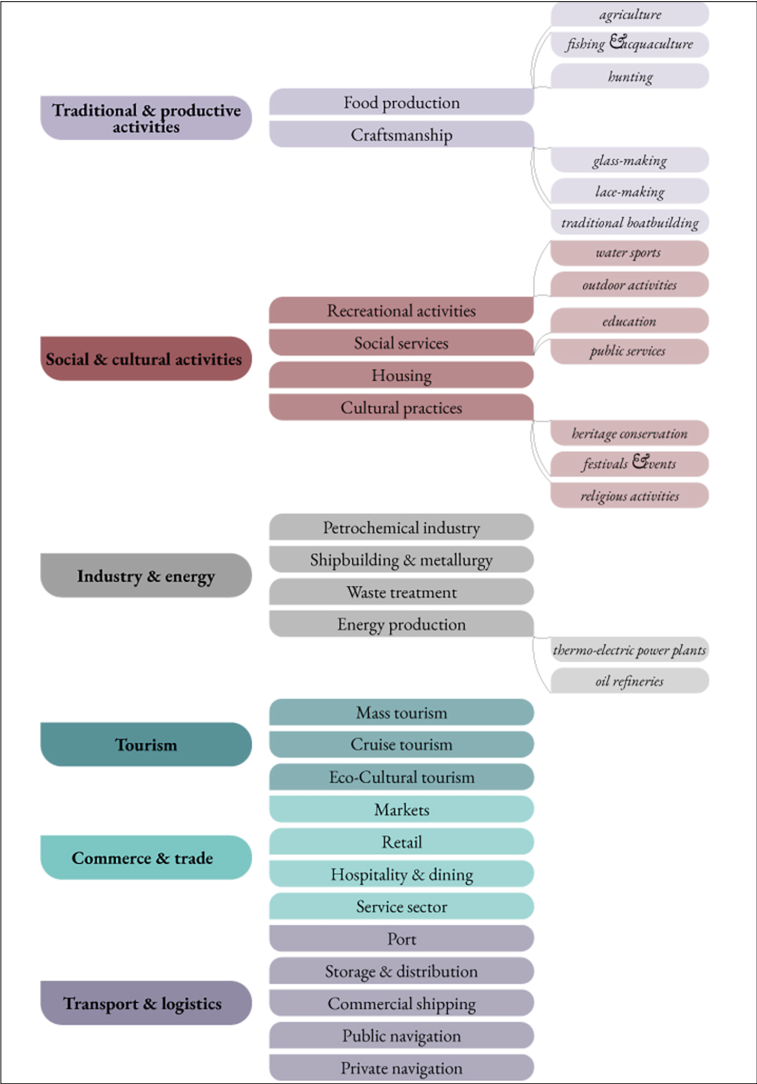


Figure 1 Classification of the existing functions in the Venice Lagoon. 2025.
Digital diagram created by Eleonora Anghileri

5.3 Identifying the Constitutive Elements of the Lagoon

To assess the compatibility of existing modes of use with the Lagoon’s ecological balance, the methodology proceeds by identifying the constitutive elements of the Venice Lagoon as a rights-bearing entity, drawing on both ecological and socio-cultural perspectives. Rather than treating the Lagoon as a homogeneous body, this step conceptualises it as a plural and relational assemblage, composed of interdependent human and more-than-human elements whose integrity underpins its legal subjectivity.

For the purposes of the analysis, five primary sets of elements are identified, representing the Lagoon’s diverse forms of life and material conditions [fig. 2]. These categories constitute an analytical framework developed to make the Lagoon’s socio-ecological interdependencies legible. While intended to provide a comprehensive basis for assessment, the framework remains open to refinement through further interdisciplinary research.

These include:

- Morphology, with particular attention to the hydrogeological features that structure the Lagoon’s spatial and ecological dynamics;
- Physical components, primarily water, understood as both material substrate and active ecological medium;
- Non-human lifeforms, divided into flora and fauna that sustain the Lagoon’s biological processes;
- Anthropic elements & human communities, encompassing practices, settlements and infrastructures embedded within the Lagoon system.

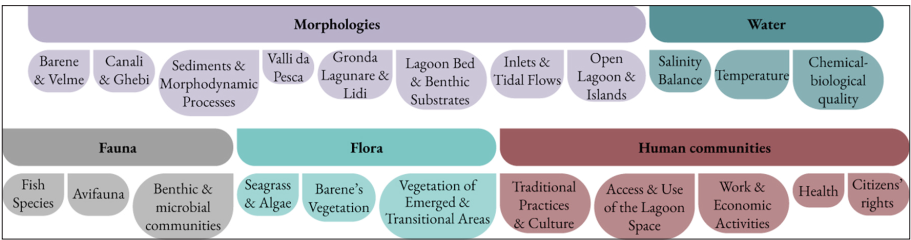


Figure 2 Classification of the Lagoon’s constitutive elements. 2025.
Digital diagram created by Eleonora Anghileri

These elements are not considered independently, but as mutually constitutive components of a shared socio-ecological system. Within this framework, the Lagoon’s legal personhood is embodied in its parts, and upholding its rights requires ensuring that the functions it hosts do not compromise the integrity of these constituent elements.

5.4 Constructing the Compatibility Matrix

The compatibility matrix [fig. 3] functions as the central analytical tool of the methodology, translating the rights of nature framework into an operational tool for spatial evaluation. It is used to assess the compatibility of existing functions with the Venice Lagoon, understood as a juridical, relational, and socio-ecological entity. Each function is evaluated against its constituent elements, not based on economic viability or political priority, but by asking whether it respects, sustains, or undermines the components that together constitute the Lagoon’s legal personality. In this sense, the matrix draws on concepts such as ecological care and long-term sustainability, using them as criteria to evaluate whether these functions contribute to the regeneration and ongoing stewardship of the Lagoon’s ecosystems and communities. The Lagoon is never understood as a fixed condition but as an evolving reality; the matrix therefore also considers the transformative potential of functions, assessing their capacity to support adaptive and future-oriented socio-ecological relations.

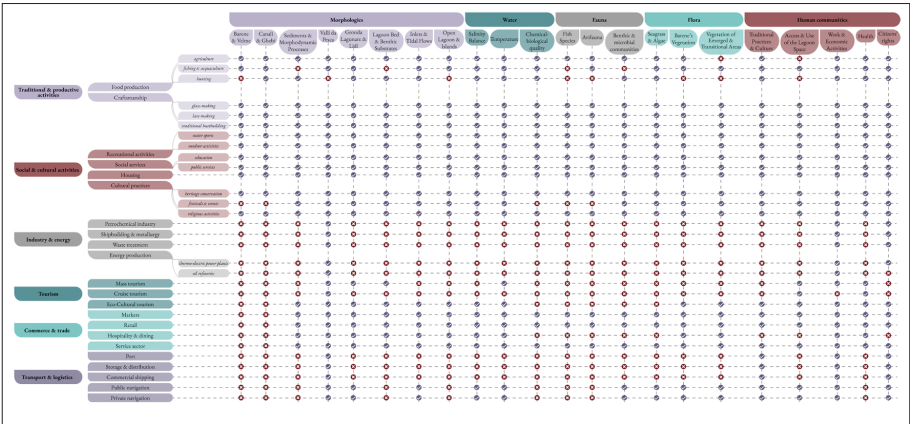


Figure 3 Matrix of compatibility and incompatibility, 2025.
Digital diagram created by Eleonora Anghileri

In this sense, this method operationalises the rights of nature by applying them as criteria for appraising and reconfiguring uses and activities. Functioning as a decision-support instrument, the matrix enables the classification of functions according to their degree of compatibility with the Lagoon’s constituent elements. By considering both the number and the nature of compatibilities and incompatibilities, functions can be differentiated into those that can persist, those requiring transformation, and those that are

incompatible with the Lagoon as a living legal subject and therefore subject to phase-out.

Each intersection within the matrix represents a qualitative judgement of compatibility, informed by a combination of literature review, field observations, interviews and insights drawn from local knowledge, including the perspectives of long-term residents and community elders. While these judgements are necessarily situated and interpretive, the matrix provides a transparent and systematic framework for articulating how rights of nature can guide spatial decision-making.

The matrix does not claim scientific neutrality or objective measurement, but operates as a situated interpretive framework through which ecological, social and spatial compatibilities are comparatively assessed.

5.5 From Evaluation to Design Principles

The compatibility assessment developed in the previous section serves not only as an evaluative tool but also as a basis for informing design decisions. Building on the results of the matrix, this phase explores how different levels of compatibility with the rights of nature framework can be translated into spatial interventions. The following sections outline the process through which design principles are derived, applied to selected functions and integrated into a broader systemic strategy for the Venice Lagoon.

5.5.1 Deriving Design Principles from the Compatibility Matrix

Building on the compatibility matrix, the methodology translates evaluation into action by deriving design principles directly from the rights-oriented assessment of existing functions, one compatible, one requiring transformation, and one incompatible with the rights of nature framework [fig. 4]. This selection is not intended to privilege specific functions or to propose exhaustive or prescriptive outcomes. Rather, it operates as a methodological device for testing how different degrees of compatibility generate differentiated spatial responses.

While alternative combinations could be explored, the decision to work across the three categories – compatible, transformable and incompatible – allows the experiment to examine how rights of nature can inform distinct modes of spatial intervention.

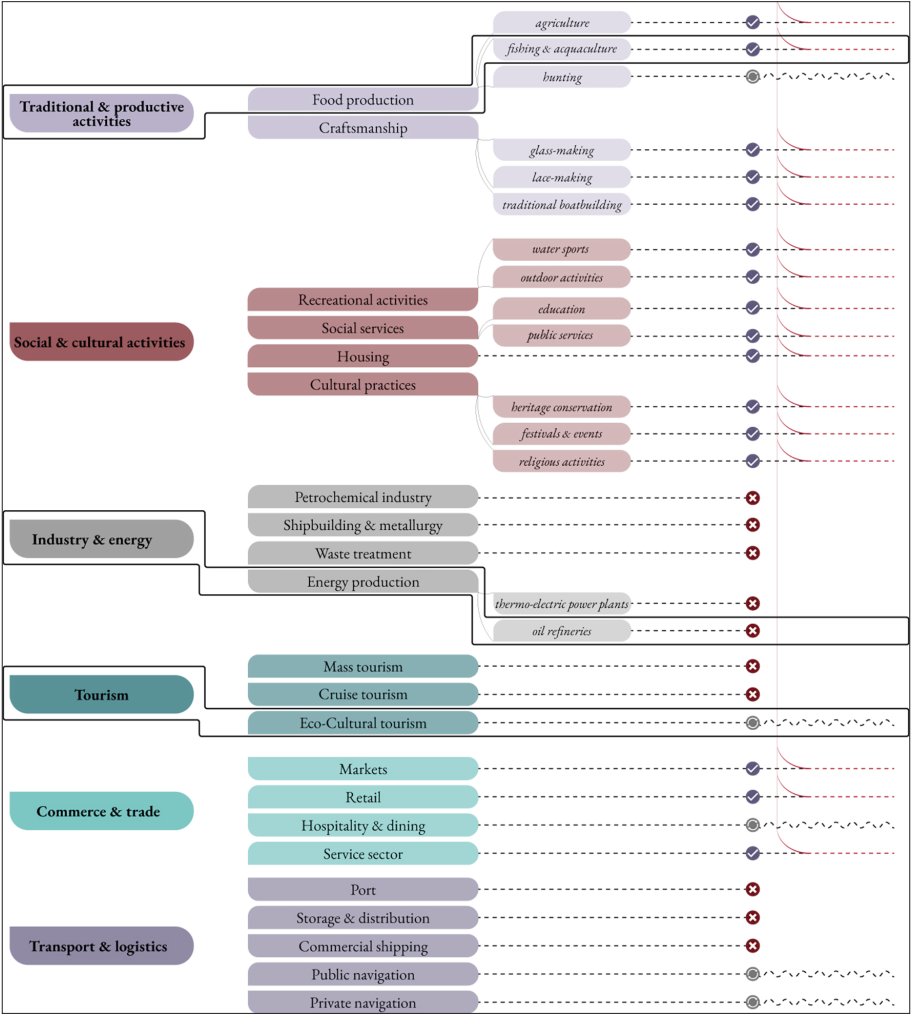


Figure 4 Matrix of compatibility and incompatibility: results and selection of the functions for the design experiment. 2025. Digital diagram created by Eleonora Anghileri

5.5.2 Design Principles

From this evaluation, three corresponding design principles are defined – expand, transform and replace – each articulating a specific relationship between function, space and rights, informed by an understanding of what the function is and where it could or should take place [fig. 5].

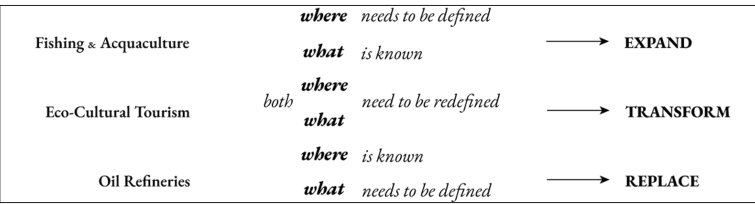


Figure 5 Logic diagram for the definition of design principle. 2025.
Digital diagram created by Eleonora Anghileri

These principles guided the design decisions related to the function itself and the spaces it occupies. The three functions are:

- Expand: Fishing and aquaculture, intended in their artisanal and sustainable forms, are identified as compatible with the Lagoon’s rights-based ontology. In this case, the function itself is not questioned; the design challenge lies in defining where and how it can be spatially expanded to regenerate the Lagoon’s ecology and economy, building upon existing practices.
- Transform: Eco-cultural tourism, recognised as a function with regenerative potential but currently characterised by extractive forms and uneven spatial concentration. Here, both the nature of the activity (what) and its spatial distribution (where) are reconfigured to foster relationships of care, reciprocity and long-term stewardship.
- Replace: Oil refineries, assessed as incompatible with the Lagoon, are understood as a living legal subject. While the spatial location is well defined, design operates through replacement, assuming the progressive phase-out of the original function and the reimagining of sites and infrastructures through non-extractive alternatives.

Across all three principles, the design phase is guided by a shared spatial question:

‘How can the reconfiguration of functions (*what*) and the spaces they occupy (*where*) contribute to restoring ecological, social and cultural value to the Lagoon, while countering processes of environmental degradation and socio-cultural erosion?’

5.5.3 Design Goal and Systemic Logic

Although developed through distinct principles, the three functions are treated as interconnected components of a systemic design experiment. As seen, each is treated according to a specific design principle; nevertheless, their development is not independent within the project's methodological framework. Among them, fishing and aquaculture – already aligned with the Lagoon's rights-based ontology – act as a generative reference, grounding the experiment in practices shaped by local knowledge, ecological reciprocity and non-extractive economies. It provides a valuable framework of practices, relationships and economies grounded in local knowledge, non-extractive models and ecological reciprocity. This logic informs both the transformation of eco-cultural tourism and the replacement of fossil-based industrial activities [fig. 6]. In this way, the experiment tests spatial scenarios and imagines a broader transition in which existing, compatible practices become seeds for systemic change. This systemic coherence is directed toward a shared design goal: integrating a new economic model that reinvests value in the Venice Lagoon by creating employment opportunities and fostering independence, offering a sustainable alternative to extractive economies that conflict with the idea of the Lagoon as an entity with rights, and ensuring the protection of the Lagoon's environment and socio-cultural dimension.

By aligning all interventions with this shared objective, the experiment assesses not only spatial feasibility but also the potential for long-term socio-ecological sustainability grounded in relational framework design principles.

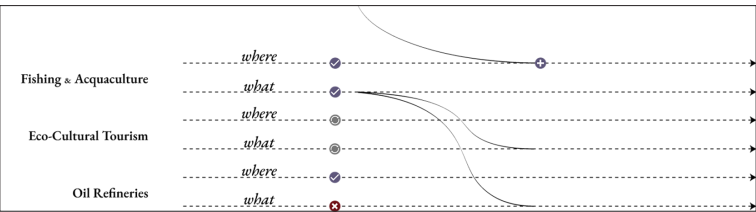


Figure 6 Systemic design logic of the project. 2025.
Digital diagram created by Eleonora Anghileri

6 Design Strategies: Illustrating a Rights-Based Spatial Method

The following strategies present a spatial articulation of the methodology described above [fig. 7]. They show how the principles derived from the compatibility matrix – expand, transform and replace – can be applied to different functional domains within the Venice Lagoon. The strategies are not intended as comprehensive project proposals, but as situated design tests that explore how a rights-of-nature perspective may inform spatial decisions across a complex socio-ecological system. While each strategy addresses a specific set of practices and spaces, they are conceived as interrelated and oriented toward a shared objective: reinvesting ecological, social and economic value within the Lagoon through non-extractive and locally grounded forms of territorial organisation, re-establishing socio-ecological reciprocity, creating local employment opportunities and encouraging new forms of inhabitation and stewardship.

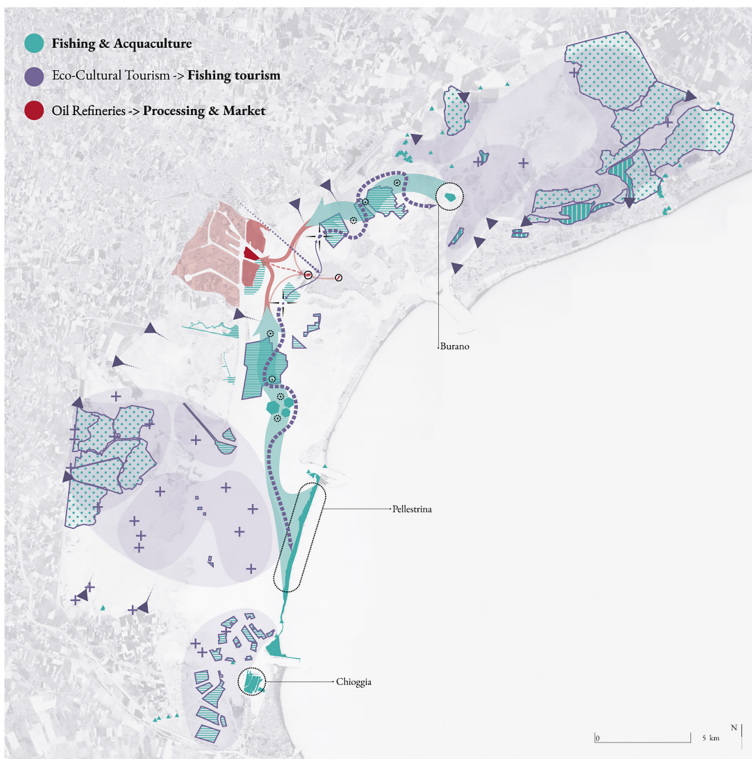


Figure 7 Strategy Map for the Venice Lagoon. 2025.
Created by Eleonora Anghileri

In order to reconstitute this value, the project deliberately focuses on the widespread system of abandonment that currently characterises large areas of the Lagoon, a phenomenon extensively examined throughout the research. This condition is visible in a constellation of abandoned islands, disused fishing huts, underutilised fish farms, and neglected Lagoon sectors. Rather than being regarded as marginal spaces, these voids are reinterpreted as potential infrastructures capable of supporting new forms of regeneration. The three strategies are woven around a central arc formed by a sequence of abandoned islands and former military batteries extending along a north-south axis, now envisioned as a new infrastructural backbone, intended to catalyse lagoon-wide regeneration processes.

6.1 Fishing and Aquaculture (Expand)

Fishing and aquaculture constitute the function most closely aligned with the Lagoon, understood as a rights-bearing entity. Deeply embedded in the Lagoon's socio-ecological history, these practices have long operated through forms of reciprocity between human activity and environmental conditions. They provide a reference for exploring how rights-compatible functions can be spatially supported rather than constrained. Applying the principle of expansion, the strategy focuses on reinforcing existing practices and their spatial conditions, rather than introducing new productive logics [fig. 8]. Expansion is understood as selective and context-dependent: it involves the reactivation of underused productive landscapes and infrastructures – such as abandoned fish farms, fishing huts and islands – together with the adaptation of practices to ongoing ecological change. This includes integrating activities such as algae cultivation or the harvesting of invasive species, interpreted as continuations of local knowledge rather than technological substitutions. Through this approach, fishing and aquaculture are treated as a stabilising and generative component of a rights-based territorial configuration.

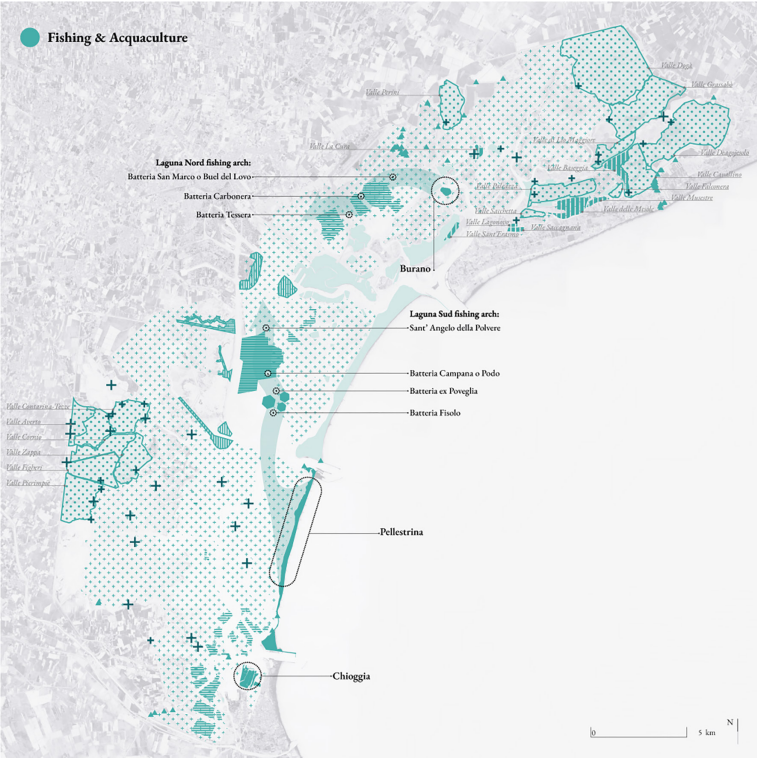


Figure 8
Fishing & Aquaculture Strategy Map. 2025.
Created by Eleonora Anghileri

6.2 Fishing Tourism (Transform)

The second strategy addresses tourism, a function characterised by both economic relevance and significant spatial and ecological pressure [fig. 9]. Through the principle of transformation, the strategy reworks existing forms of eco-cultural tourism by embedding them more directly within the Lagoon's productive and social landscapes. Transformation operates on two levels. First, it redefines tourism activities by linking them to fishing and aquaculture practices, emphasising learning, participation and proximity to everyday work rather than consumption-oriented experiences. Second, it reconfigures the spatial distribution of tourism by shifting away from concentrated flows centred on Venice's historic core toward more dispersed, small-scale, water-based routes across the Lagoon. In this configuration, tourism is integrated as a complementary activity that supports local livelihoods, redistributes presence and helps maintain socio-ecological relations consistent with the Lagoon's rights.

6.3 Processing and Markets Strategy at Porto Marghera (Replace)

The third strategy applies the principle of replacement to structurally incompatible activities under current operational conditions with the Lagoon's legal and ecological integrity [fig. 10]. Focusing on the industrial area of Porto Marghera, historically associated with fossil-based production and logistics, the strategy explores how extractive infrastructures might be progressively decommissioned and reassigned to new roles.

Replacement is approached as a process of spatial and functional reprogramming rather than erasure. Former industrial sites are reimagined as facilities for processing, storing and distributing fish and aquaculture products originating within the Lagoon, supporting cooperative and regionally embedded economic models. This reorientation reconnects production, transformation and consumption, reinforcing material links between the Lagoon and the urban system it sustains. More broadly, the strategy tests whether areas shaped by industrial production can be repositioned within a post-extractive trajectory aligned with the recognition of the Lagoon as a subject of rights. In this sense, the strategy approaches post-extractive transition as a reconfiguration of territorial relations of production, value and ecological responsibility, rather than a simple geographical shift in industrial production and environmental burdens.

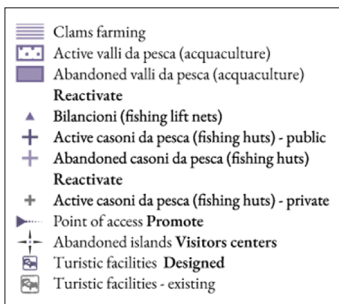
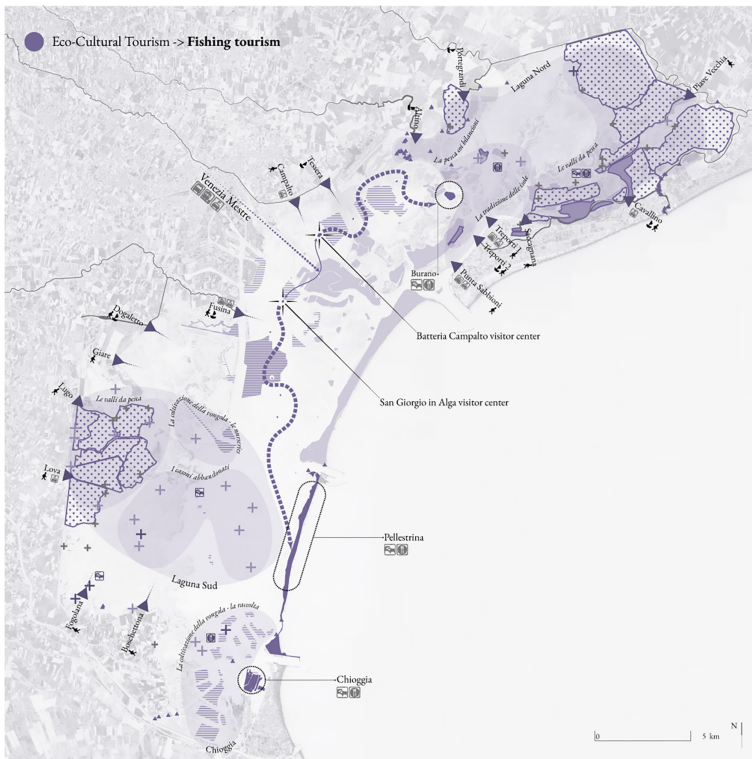
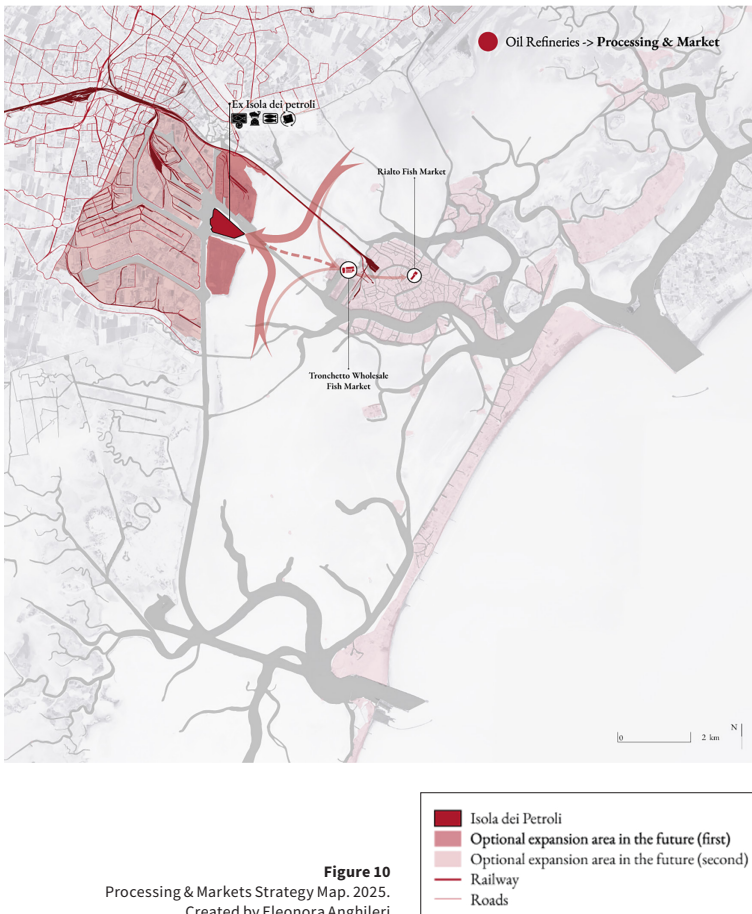


Figure 9
Fishing Tourism Strategy Map. 2025.
Created by Eleonora Anghileri



6.4 Design Strategies and Methodological Scope

Considered together, the three strategies demonstrate how a rights-based and sustainability-oriented evaluation can inform differentiated spatial responses without prescribing a fixed territorial outcome. By expanding compatible practices, transforming ambivalent ones and replacing incompatible activities, the design experiment examines the capacity of spatial practice to operate as a mediating field between legal recognition and territorial change. In this sense, design is used to make visible and negotiable the spatial implications that the rights of nature entail for sustainability and ecological resilience.

7 Discussion & Conclusions

This paper addressed a central concern: how to safeguard the Venice Lagoon and its islands from ongoing processes of environmental degradation and socio-cultural erosion. It approached this question through the lens of the rights of nature, considering the Lagoon as a potential subject of rights endowed with legal personhood.

Framing the Lagoon as a legal subject is explored here as an alternative mode of protection – one that shifts attention from sectoral regulation toward the spatial and institutional consequences of recognising ecological systems as rights-bearing entities.

Rather than proposing a definitive solution, this paper examined how such recognition could reconfigure the conditions under which space is used, governed and contested. If the rights of nature were to become legally binding, certain practices would no longer be legitimate, while others – often marginalised or in decline – could regain relevance. These ‘new-old’ socio-spatial functions generate value not in extractive terms, but as ecological, cultural and economic presence rooted in care and reciprocity. As these practices become embedded again in the Lagoon’s everyday life, they contribute to a form of collective protection: the Lagoon’s continued inhabitation and use becomes inseparable from its defence.

In this respect, the paper draws a parallel with earlier forms of coexistence between the Lagoon, its communities and governing institutions, in which mutual dependence sustained a fragile but persistent socio-ecological balance. The design experiment developed here suggests that similar dynamics could re-emerge under contemporary conditions, provided that spatial practices are aligned with the recognition of the Lagoon’s rights and material limits based on a community-based and interdisciplinary assessment of environmental conditions. The design strategies discussed – fishing and aquaculture, fishing tourism, and cooperative processing and markets – serve to test this proposition. They suggest that selected functions might be reintroduced or reconfigured to restore ecological and social value within the Lagoon.

However, the main contribution of this research is not in the strategies themselves, nor in their direct applicability, but in the methodological framework through which these strategies were developed. By translating legal recognition into spatial criteria and design principles, the study sought to bridge the language of law and the practices of urbanism. In doing so, it positions spatial practice as a means of rendering the rights of a non-human entity visible, debatable and operational within the territory. Design becomes a field for testing, negotiating and spatially articulating the implications of recognising rights. The strategies should therefore

be read as situated experiments within an evolving field,⁷ rather than as conclusive proposals. More broadly, the paper advances an interpretive methodology for translating rights of nature into spatial criteria, territorial evaluation and design practice.

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⁷ These questions continue to be explored through ongoing interdisciplinary initiatives in Venice, including *Nature Speaks: Listening for Rights of Nature in Venice and Europe* (Ocean Space, 2026), an ongoing policy lab focused on the territorial implications of rights of nature in the Venice Lagoon. https://tba21.org/oceanspace-exhibition_nature_speaks.

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