LAGOON, ISLANDS. THE COUNTRYSIDE OF VENICE

AN INTERDISCIPLINARY EXPLORATION OF THE RIGHTS OF NATURE AS A SPATIAL PRACTICE

Eleonora Anghileri



COLOPHON

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Lagoon, islands. The countryside of Venice An Interdisciplinary Exploration of the Rights of Nature as a Spatial Practice

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"I nomi sulle carte non bastano mai, ce ne vorrebbero molti altri, infiniti: tante sono le combinazioni del liquido e del solido in questa gronda estrema del continente, verso la separazione definitiva tra mare e pianura"

- Paolo Barbaro, Intervallo tra le sabbie - Ultime Isole

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Eleonora

Abstract

The context of Venice is so unique that even in this first sentence a mistake is already being made. In fact, Venice should never be considered separate from its Lagoon and islands, which together once formed an interdependent ecological, social, and economic system, vital to the city's survival. They still do, but the way this system functions has changed profoundly. Historically, the Lagoon provided essential resources, including livelihoods, and hosted critical public functions. This close relationship fostered stewardship of the territory, which resulted in the Lagoon being cared for and maintained as a vital resource.

However, modernity has profoundly altered this dynamic. The progressive loss of functions in the Lagoon and islands has undermined the central role they once played in sustaining the city and are therefore no longer seen as valuable. As a result, they are often neglected by both communities and institutions. The most problematic consequence of this lack of consideration is that it facilitates the spread of destructive practices, leading to processes of environmental degradation and socio-cultural erosion. A territory deprived of its historical, economic, and social roles becomes increasingly vulnerable to dynamics of exploitation and abandonment.

If this trajectory is not reversed, Venice, its Lagoon and its islands risk undergoing a definitive transformation: an emptied place, devoid of identity and life, increasingly losing its active population and facing irreversible ecological decline.

In the past, active human presence, through traditional Lagoon-based livelihoods and functions, provided a natural form of protection. Today, a different approach is needed.

This research explores how recognizing the Venice Lagoon as a subject of rights can open new paths for its protection. Through an interdisciplinary and spatially grounded approach, it investigates how a rights of nature framework can inform new legal imaginaries and spatial strategies, reactivating social and productive practices that contribute to a more livable and resilient future for Venice and its Lagoon.

Table of Contents

	iii. Problematization				
	RESEARCH FRAMEWORK & METHODOLOGY				
	i. Research framework				
	ii.	Theoretical framework	30		
	iii. Problem statement				
	iv. Research questions				
	v. Methods				
	vi. Expected outcomes				
	vii. Conceptual framework				
	Narratives - analyse Relationships of need				
0		·			
• O		lationships of need			
0	Rel	lationships of need			
• O	<i>Rel</i>	lationships of need	44		
•	<i>Rel</i>	lationships of need t The countryside of	44		
0	<i>Rel</i>	lationships of need t The countryside of Venice	44		
0	<i>Rel</i>	tationships of need The countryside of Venice Lagoon, islands. The countryside of Venice The Lagoon as the country-			
0	<i>Rel</i>	tationships of need The countryside of Venice Lagoon, islands. The countryside of Venice			

INTRODUCTION

ii. Prelude

i. Personal motivation

12

	Dung Line of a sund	
11.	Practices of care	
	occasional, insular	50
	humanity	58
-	Preserving by transforming:	
	the paradox of care in the	
	Venetian Lagoon	60
-	The hydraulic works	63
-	Regulatory practices	70
No	relationships, no need	
Mo	odernity	
III	.That moment when	
	everything changed	76
-	Porto Marghera: out of the	
	"Venice Problem", into	
	modernity	78
-	The socio-ecological costs of	
	modernity	84
-	What remains of Venice's	
	countryside? Loss of fun-	
	ctions across the Lagoon	86
IV.	Presence & absence	
	ownership, steward-	
	ship & abandonment	98
-	Presence & absence through	
	territorial agency and land	

	-	Ownership, stewardship & abandonment	98		
}	Pre	esent			
} :	V. Practices of degrada-				
}	tion inevitable, urban				
} ;		humanity	120		
}	-	Pollution	122		
}	-	Hydrogeomorphological			
{ :		alterations	128		
}	-	Abandonment and sell-off			
}		of the public asset of the			
{ :		islands	134		
~~~~~~		arratives – process			
} :	Ke	lationships of will			
		lationships of will . <del>The Venetian</del> my inter	_		
			142		
		. <del>The Venetian</del> my inter			
		The Venetian my inter- disciplinary effort	142		
		The Venetian my interdisciplinary effort Relationships of will Positioning: within and towards the Lagoon	142		
		The Venetian my inter- disciplinary effort Relationships of will Positioning: within and	142 142		
		The Venetian my inter- disciplinary effort Relationships of will Positioning: within and towards the Lagoon Ethnographic portraits of the Venice Lagoon	142 142		
		The Venetian my interdisciplinary effort Relationships of will Positioning: within and towards the Lagoon Ethnographic portraits of	142 142 144		

	journey through the rights	[ ]	La	agoon towards legal rights	212
	of nature discourse	172	- D	esigning with rights in mind	222
			>	An experimental scenario	
А١	while before future			for the Venice Lagoon as a	
VII. Relationships of				subject of rights	222
	will, and action	178	>	Methodology	222
	Silvano	180	>	Identification and mapping	
	Amina	182		of functions	224
	Carlo C.	184	>	Identification and map-	
	Pietro	{		ping of the elements of the	
	Tito	186		Lagoon	236
		188	>	Matrix of compatibility	260
•	Gigi	190		and incompatibility	260
•	Lorenzo P.	192	>	From compatibility and incompatibility to design	
•	Cosetta	194		principles and goal	262
•	Margherita	196	>	Restoring value through	262
-	Lorenzo B.	198		design: three strategies for	
	Marco	200		the Venice Lagoon	268
		{	>	Fishing & Acquaculture	200
				strategy	270
N	arratives – project		>	Fishing tourism strategy	278
			>	Processing & Market	
VI	II. Venice Lagoon: a	{		strategy	286
	water body	204		-	
	Framing: the Lagoon as a		CONC	CLUSIONS &	
	subject of rights	204	REFL	ECTION	295
	Prototyping the right to				
exist: an exploration of the			BIBL	IOGRAPHY	309
	possible path of the Venice				

Introduction

## PERSONAL MOTIVATION

SEPTEMBER 2019 - WITH VITTORIA FONDAMENTA DELLA FRESCADA, DORSODURO 3894

Venice is the home I chose for myself at eighteen, when I decided to leave my hometown, Milan, to study urbanism in another city. To ease the guilt of leaving a city that, when it comes to university, nobody in Italy really leaves, I told myself it was the smartest academic choice, where better to study this discipline than in such a uniquely complex setting?

But the truth is that I had already fallen for the dark and deserted alleys in the night of Cannaregio when I visited for the university open day, and I could already see myself there in the years to come.

Venice is the home I chose. The Lagoon is the one I received, without knowing it existed, or how much I needed it.

This work is rooted in a deep affection and a radical fascination for all that is Lagoon and all that is Venice, grown over the years through everyday life, Lagoon commuting, as I like to call it, and passionate research. For an environment that was the first where, as a city girl, I felt deeply connected to nature, even though, as this research will show, that nature perhaps isn't quite what it seems.

It's a work born of love and passion, but also of the critical gaze shaped by my studies, deeply rooted in the city-Lagoon, by my work, in the fragile world of lagoon agriculture, in close contact with people and their struggles, and by life itself, which here is not for everyone, in many senses. Life in the city, in Venice, caught between tourism and commodification, and life in the Lagoon, in Sant'Erasmo, marked by climate change and abandonment.

The truth is that when it comes to Venice and its Lagoon, you don't need a trained eye to notice something is wrong, its fragilities are vast and obvious.

This project comes from all of this: from the desire to express, on one hand, my love, telling about the city of Venice, the complex but vital system that its Lagoon represents, the islands and the territories of the Lagoon eeves, and, on the other, to give voice to this critical gaze, by telling about a city that is home to many, not just to me, even to those who were eventually forced to leave it. About its unusual evolution, its societal practices, its present, its countless fragilities. And about the thousands of different

times and ways in which the city-Lagoon and its inhabitants have been able to reinvent themselves. Hoping that the next reinvention is already taking shape, just around the corner, *a while before* future.

12 13

FEBRUARY 2023

VIA DELLE MOTTE 238, SANT'ERASMO

#### MOTIVAZIONI PERSONALI

JULY 2023 - WITH CARLO SANT'ERASMO

Venezia è la casa che mi sono scelta a 18 anni, quando ho deciso di lasciare la mia città natale, Milano, per andare a studiare urbanistica in un'altra città. Per giustificare il mio senso di colpa nel lasciare una città che, in Italia, nessuno lascia mai quando si parla di università, mi dicevo che era la scelta migliore dal punto di vista accademico, dove è meglio studiare questa disciplina che in un contesto tanto particolare? La verità è che le calli buie e deserte nella notte di Cannaregio quando ero andata a visitarla per l'open day dell'università mi avevano già conquistata, e già mi vedevo lì negli anni a venire.

Venezia è la casa che mi sono scelta, la Laguna è quella che ho ricevuto, senza sapere che esistesse o di averne estremamente bisogno.

Questo lavoro nasce in primis per un amore profondo e una fascinazione radicale per tutto quello che è Laguna e che è Venezia, costruito negli anni tra vita di tutti i giorni, pendolarismo lagunare, come mi piace definirlo, e ricerca appassionata. Per un ambiente che è stato il primo in cui io, ragazza di città, mi sono sentita profondamente connessa

alla natura, anche se, come si leggerà nel corso di questa ricerca, questa natura forse non è.

Questo lavoro nasce dall'amore e dalla passione accostati però allo sguardo critico venuto dagli studi, profondamente radicati nella città-Laguna, dal lavoro, nel fragile settore dell'agricoltura lagunare, a stretto contatto con le persone e le loro difficoltà, e dalla vita, che qui non è per tutti, in molti sensi. La vita in città, a Venezia, tra turismo e commercificazione, e in Laguna, a Sant'Erasmo, tra cambiamento climatico e abbandono.

La verità è che per Venezia e la sua Laguna non serve uno sguardo estremamente critico per accorgersi di qualcosa, tanto grandi ed evidenti sono le sue fragilità. Questo lavoro viene da questo, dalla volontà di esprimere, da un lato, il mio amore, raccontando della città di Venezia, del complesso ma vitale sistema che la sua Laguna rappresenta, delle sue isole e dei territori della gronda, e dall'altro, dare sfogo a questo sguardo critico, raccontando di una città che è casa per molte persone oltre che a me, anche di quelle che alla fine sono state forzate a

lasciarla, della sua evoluzione inusuale, delle sue pratiche sociali, del suo presente e delle sue infinite fragilità e delle migliaia di volte e di modi nei quali la città-Laguna e i suoi abitanti sono stati in grado di reinventarsi. Sperando che la prossima sia dietro l'angolo, un attimo prima del futuro.

14 15

MAY 2020 - VENEZIA LOCKDOWN

# **PRELUDE.** Venice, March 8th 1611 – May 25th 1791 – February 9th 1990

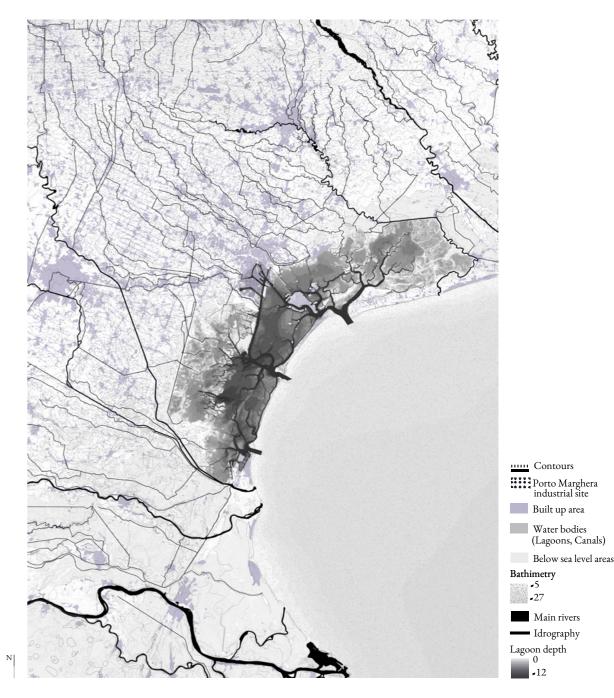
On May 25th 1791 the Commission of the Saviors and Executors of the Waters Commissione dei Savi ed Esecutori alle Acque/ definitively instructed the executor Fabio Iseppo Gritti to proceed with the construction of the stone terms necessary to mark the contermination line of the Lagoon /linea di conterminazione lagunare/, identified in 1784, "after the completion of accurate surveys and soundings aimed at drawing up the new general map of the Lagoon [....] operating a clear juridical as well as physical separation between the territories in some way subject to the 'salty waters' and those emerged and consolidated or, in any case, considered dry land" (Armani et al., 1991). Thus began, for the first time, the integral and permanent demarcation of the Venice Lagoon with with what were to be 99 brick boundary stones /cippi/.

But what could "permanent" mean in a territory in *permanent* transformation, where sea and land were unpredictably exchanging?

In fact, it had happened before. Until then, the distinction between water and land had only been marked near the

three mounds /dossi/ of Lugo, Fogolana and Conche with 43 masonry cippi, a first line of demarcation ratified by the Senate of the Serenissima Republic of Venice with the decree of March 8th, 1611. These, however, were ignored in the works of 1791, because the shape of the Lagoon had changed and those lands, then barely emerging, had been submerged by the water and therefore included in the new demarcation (Armani et al., 1991) (D'Alpaos, 2010b). Today's contermination line, however, is the result of the Ministerial Decree for Public Works of February 9th, 1990 "Modification of the course of the contermination line of the Venice Lagoon". In fact, two centuries later, it was again necessary to modify the boundary line in order to adapt it to environmental changes, as had already happened in 1924 with the exclusion of the Brenta Delta from the Lagoon territory. The boundary stones of 1791, Gritti's ones, had become scattered relics, embedded in a changed landscape, extremely transformed, witnesses to a vanished past, but also and above all to the very typical character of the Venice Lagoon: an





amphibious space in constant motion, where every boundary drawn is destined to dissolve and be redrawn relentlessly, defeating any attempt to fix it on a map.

The Lagoon of Venice, located on the coast at the bottom of the alluvial plain of the Po River where it flows into the Upper Adriatic Sea /Alto Adriatico/, is the largest lagoon in the Mediterranean with a surface area of about 550 km². Like the other wetlands of Alto Adriatico, it is the result of the slow and continuous process of submergence of a low coastline, rich in river mouths and affected by significant sediment inflows. It is precisely the action of the currents and tides that penetrated the cordon of coastal dunes, together with the concomitant sinking of the land, that led to the formation of the typical morphologies that we can still identify in the Lagoon landscape today: an articulated network of channels /canali-ghebi/ dug into the Lagoon bed and winding between brackish marshlands /barene/ and mudflats /velme/, and the lidos / *lidi/* that form the boundary, the islands that separate the Lagoon from the sea (D'Alpaos, 2010a). Tidal fluctuations then play a fundamental role in shaping the landscape, constantly reconfiguring the morphology of the Lagoon due to the semidiurnal tides that flow through the inlets, influencing water levels and controlling sediment transport and biological activity (Bettinello & Ongaro

Sartori, 2020). Despite its unstable character, or perhaps because of it, the human presence in the Venice Lagoon has been a constant for centuries, since 452 A.D. when, during the first Gothic and then Longobard invasions, the inhabitants of Altino and Oderzo, towns on the mainland overlooking the Lagoon, first found refuge in the marshy environments of the archipelago of the northern Lagoon, formed by the islands of Torcello, Burano, Mazzorbo and Ammiana and Costanziaco, now disappeared (Dorigo, 1983). These populations had in fact begun to see the space of the Lagoon not as an inhospitable environment, but as a protective void that protected them from enemies. This vision of the Lagoon as a defensive space, capable of maintaining distance and providing protection against threats from the mainland, grew with the history of these populations, who gradually made this water basin their strength, transforming the Lagoon into their own liquid fortress (Chouairi, 2020), into the "sacred walls of the Homeland", namely the Serenissima Republic of Venice, as recalled in the Edict of Egnazio, walled up in the 16th century in the headquarters of the Ministry of Waters / Magistrato alle Acque/ and now preserved in the Museo Correr (Fabian et al., 2021). "For the capital of the Serenissima, water was the most precious common good" (Calabi & Galeazzo, 2015).

The importance of this space for the ve-

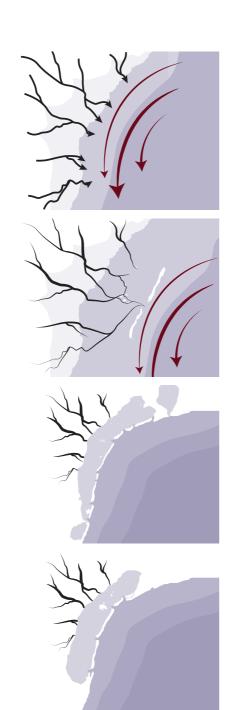


fig. 01/02 GENESIS OF THE VENICE LAGOON

netians manifested itself in the centuries that followed in the need to preserve and defend it. From that moment on, the Lagoon became a highly anthropized space, in which the action of human intervention overlapped with that of natural processes, acting as a discriminating factor in determining the shape of the Lagoon we have today: "lagoons formed on low coasts and rich in estuaries are subject to rapid morphological changes. They are destined to become silted up when the river's building action dominates the sediment production and deposition balance, or to erode and gradually transform into coastal environments when the sea's action dominates. Between transgressions and regressions by the sea, the fate of the Venice Lagoon would have been quite different if the people who chose to live there had not intervened to alter the spontaneous evolutionary phenomena and adapt the Lagoon environment to their own needs" (Calabi & Galeazzo, 2015).

fig. 01/03 C. SABBADINO, VENICE LAGOON, 1556 (COPY BY A. MINORELLI, 1695)

fig. 01/04 EDITTO DI EGNAZIO, 15th CENT, VENEZIA, MUSEO CORRER

VENETORVM VRBS DIVINA DISPONENTE
PROVIDENTIAI NA QVIS FVNDATA, AQVARVM
AMBITV CIRCVMSEPTA, AQVIS PRO MVRC
MVNITVR: QVISQVIS ICITVR QVOQVOMON
DETRIMENTV PVBLICIS AQVIS INFERRE
AVSVS FVERIT, ET HOSTIS PATRIÆ
IVDICETVR: NEC MINORE PLECTATVRÆN
QVÄ QVI SANCTOS MVROS PATRIÆ VIOLASSET
HVIVS EDICTI IVS RATVM PERPETVVMC
ESTO

We sail for a couple of hours and find ourselves in the stillest Lagoon in the world. It seems still to us. In truth, it is ever-changing, never tired: mirrors of water stretching as far as the eye can see, rising, swelling, silently pressing against the shores; and islands and islands without a single human mark, slowly disappearing, one after another, with the tide. But the land beneath our feet, we now realized, the sand, the dunes, even the stones of the lighthouse always ready to shift and turn to dust, everything changed constantly, even more than the tide, which within certain limits is predictable: the islands of sand and mud multiplied and dissolved day by day, only to reform, layer by layer, a little further away or perhaps never again.

Paolo Barbaro, Ultime Isole

Over time, therefore, the perception of the Lagoon as a void, a formally correct notion also in relation to the Latin etymology of the word lăcūna, empty space, gap, gave way to a new view that saw it instead as a full space from an operational-planning point of view (Cipriani, 2017), useful, that could and should have well-defined roles. The development of Venice is inextricably linked to the Lagoon, a functional space at the service of the city and at the same time sustained by it, in a relationship of interdependence in which the survival of Venice is linked to the Lagoon as much as that of the Lagoon to the city: in fact, Venice is its Lagoon and its Lagoon is Venice (Pedrocco, 2013). From here, the notion of the Lagoon as the Countryside of Venice, the title of this thesis.

#### The return to an empty space?

In modern times, however, the latest mutation of this territory, never destined to stability, happened. In fact, the delicate balance between human presence and ecological dynamics has progressively deteriorated, leading to the gradual emergence of a paradoxical void, and emptiness not of space, but of meanings and relationships. Once a carefully managed environment, the Lagoon now faces the risk of becoming a fragmented landscape, disconnected from the city it once sustained. The underlying causes and consequences of this transformation will be explored in the problematization section, where the progressive loss of functions and its impact on Venice's socio-ecological system will be introduced.

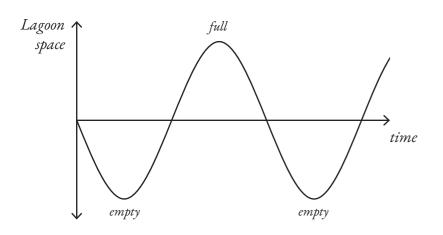




fig. 01/05 FRINGE TERRITORY AT THE MOUTH OF THE DESE RIVER, 16th CENT

# **PROBLEMATIZATION.** Or how the Lagoon is being emptied

In the past, Venice, its Lagoon and its islands were part of the same complex but vital ecological, social and economic system. They still are, but the way this system works has changed profoundly. In the past, the Lagoon and the islands were integral to Venice's survival, as they provided essential resources that the city, surrounded by water and marshland, could not obtain elsewhere. These resources were mainly food and other livelihoods through agriculture and saltworks, on the main islands / isole maggiori/, fishing, in the open Lagoon /Laguna aperta/, aquaculture and hunting, in the fish farms /valli da pesca/ and livestock breeding on the marshlands /barene/, as well as space for important public functions such as health, religion and defence, on the minor islands /isole minori/ (Calabi & Galeazzo, 2015) (Zanetti, 2009). Based on these practices, there was a close relationship between the population and the Lagoon, an interdependent socio-ecological system that resulted in the Lagoon and islands being cared for and maintained as a vital resource.

Today, however, with the advent of mo-

dernity and the progressive loss of some traditional functions, the Lagoon and islands no longer play the central role they once did in sustaining the city and are no longer seen as valuable. Instead, they are often completely neglected and devalued by people, institutions and politicians. Yet, the situation could be worse, as at least this environment is not even perceived as a key resource within modern exploitation frameworks, except in a few isolated cases, such as luxury developments or certain tourism-related activities. For the most part, the Lagoon and islands are simply overlooked (Pedrocco, 2013). This lack of consideration has led to a general state of abandonment, though not absolute, as some residents continue to live and work in these areas.

The most problematic consequence of this state, apart from the loss of functions and traditional practices linked to this ecosystem itself, is that it facilitates the establishment of destructive practices and processes of environmental degradation and socio-cultural erosion that undermine the vitality of the territory, which can occur without





much resistance or control: an area deprived of its historical, economic and social role becomes more vulnerable to the dynamics of abandonment and consequent exploitation (Palmer, 2022).

The dynamics of exploitation in the Lagoon take the form of indirect exploitation: the Lagoon and islands are not generally exploited as direct resources, although this does occur in cases such as the sale of islands. Instead, they are mainly affected by external activities rooted in exploitative practices. These activities, though not directly targeting the Lagoon, have significant consequences on its environment, contributing to its degradation.

At the forefront of this situation are issues such as the sale of the public heritage represented by the islands and their architectural and cultural assets (Cavallo & Visentin, 2021), the pollution of the Lagoon due to human activities (industrial, civil and agricultural effluents, shipping traffic, contaminated sediments) (Sfriso et al., 1992), and the hydrogeomorphological alteration of the water body caused by interventions such as the excavation of industrial canals or even the construction of the MOSE system to protect Venice from high tides, which was built with little regard for the ecological health of the Lagoon itself: intended to protect Venice, it means death for the Lagoon instead (D'Alpaos, 2010a). All this can happen because there is no significant

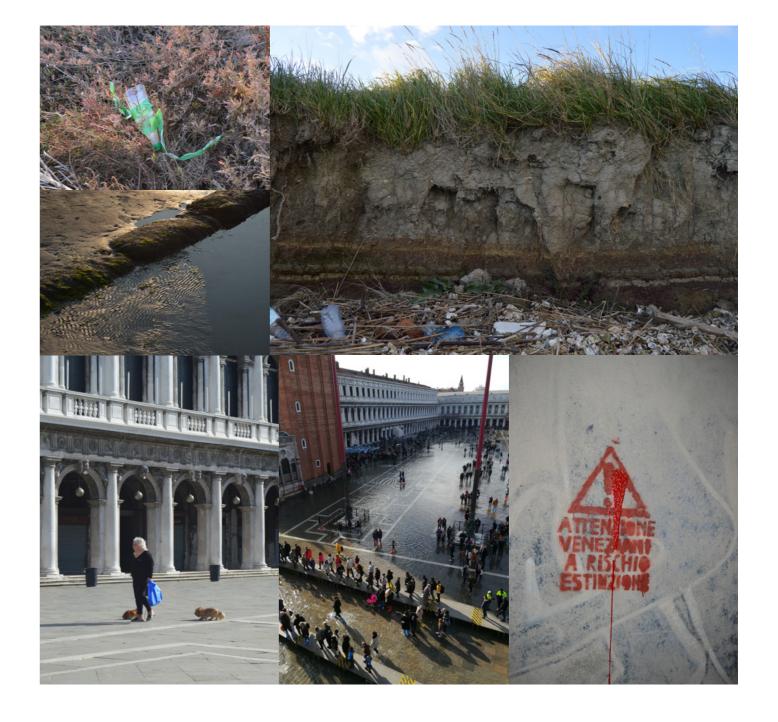
concern for the integrity of the Lagoon, which isn't considered important enough to be protected in the same way that Venice once did, when it was dependent on it.

On top of this comes the destructive impact of mass tourism, which exploits communities and ecosystems, accelerating the depletion of resources and the marginalisation of residents (Settis, 2014) and the often invisible threat of climate change, which poses a grave risk this entire system: the constant threat of flooding due to higher tides, sea level rise and subsidence all together is perhaps the most dangerous force affecting the Lagoon's survival (TBA21-Academy Radio, 2020).

In the past, the active human presence tied to the land through traditional livelihoods and the set of practices associated with the Lagoon acted as a natural form of protection. Today, the lack of value placed on the Lagoon, either for traditional practices or modern purposes, has left it vulnerable to environmental degradation and socio-cultural erosion. In the absence of effective preservation and local stewardship, the Lagoon's socio-ecological equilibrium is at risk, requiring a new form of protection to restore its value and ensure its safeguarding.

fig. 01/06 ENVIRONMENTAL DEGRADATION & SOCIO-CULTURAL EROSION THROUGH THE YEARS (2019-2025) SEEN THROUGH MY CAMERA, AS A LAGOON-CITY CITIZEN





Research framework & Methodology

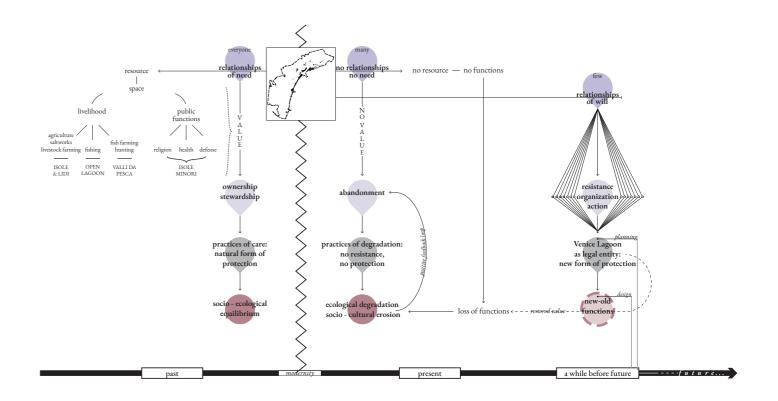
# **RESEARCH FRAMEWORK.** Through the narratives, towards the problem

In structuring this research, I have identified four moments that will be constantly present throughout the project, defining where in this timeline the different themes analysed (analyse), processed (process) and projected (project) are located. These moments, which will be defined in more detail later in the report, are the time of the past, the moment of modernity, the time of the present and the moment of a while before the future. A fifth moment has actually also been identified, the time of the future, but the actions explored in this project are never confined solely to that horizon; they always originate slightly earlier and evolve toward it.

This research is also broken down into different narratives, summarised in the diagram opposite. These narratives give names to the different chapters of the report and are taken up in the theoretical framework on the next page, where each is linked to a corresponding theoretical concept. Each narrative is associated not only with a moment in time, but also with a type of relationship between the community and Lagoon that characterises that time and

has spatial consequences. This concept forms the foundation of my conceptual framework, which is elaborated in the following pages. Together, the narratives trace the trajectory of the project and tell two stories: one, the story of the Venice Lagoon and its islands, what they have meant, what they mean today, and what they could mean in the future, and the other, the story of my engagement with these issues, the fruit of which is the thesis you hold in your hands.

I will briefly review here the narratives that make up the research framework, linked to the theory that will be explained in the theoretical underpinning, in order to introduce the backbone of the research and clarify the red thread, the guiding story that will accompany you as you read the thesis. The development of this research framework is both the starting point and the culmination of this research. On the one hand, it emerged from the very first stages of my research, shaping my understanding of the issues outlined in the previous chapter. The "problematisation" section, in fact, is precisely the narrative, in explicit form, of what the research framework alongside implicitly conveys; on the other hand, this framework already hints at the trajectory the project will take, holding all its elements together and setting the course for what follows.



#### Relationships of need

[PAST] "The countryside of Venice" | Socio-Ecology: explores the Venice Lagoon as a socio ecological system.

[PAST] "Practices of care - occasional, insular humanity" | Care: links the agency of the communities of the Venice Lagoon with the broader notion of care

#### No relationships, no need

[MODERNITY] "That moment when everything changed" | Modernity: focuses on the influence of modernity on the socio-ecological system of the Venice Lagoon

[MODERNITY] "Presence & absence - ownership, stewardship and abandonment" | Territorial agency - Land ethic: investigates territorial agency and its spatial manifestations in the Lagoon context

[PRESENT] "Practices of degradation - inevitable, urban humanity" | Anthropocene: contextualizes the destructive practices happening in the Lagoon within the broader Anthropocene framework

#### Relationships of will

[PRESENT] "The Venetian my interdisciplinary effort" | Interdisciplinarity: focuses on interdisciplinary perspectives in addressing the themes I am investigating in the venetian context and how these could inform my work

[A WHILE BEFORE FUTURE] "Relationships of will, and action" | Intentionality: analyses the current dynamics existing between the Lagoon and its communities to imagine future possibilities

[A WHILE BEFORE FUTURE] "Venice Lagoon, a water body" | Rights of nature: finally explores the concept of rights of nature and espetial its potential application in the Lagoon context through design

#### THEORETICAL FRAMEWORK

The theoretical framework scheme aims to bring together the concepts that underpin this project. As previously mentioned, the research structure is reflected in this framework, with each section linked to a corresponding theoretical concept, creating sets of concepts that address the same themes, one contextual and one theoretical. The selected literature for each set follows the same structure, forming a gradient from more contextual titles, which deal specifically with these themes in the Venetian Lagoon context, to broader, well-known literature that extends the theme from its site-specific context to a wider theoretical perspective. Similarly, many of the sets are related between each other, sharing pieces of literature.

#### The countryside of Venice | Socio-Ecology

The Venetian Lagoon can be considered the countryside of Venice because it was a site of cultivation and provisioning, through agriculture, fishing, bird hunting, and salt extraction. It was also a countryside closely tied to the city, since its islands hosted essential public functions and infrastructures for Venice (Calabi & Galeazzo, 2015). This embeddedness within the Lagoon's ecology illustrates an early form of socio-ecological integration, a set of complex interaction between natural and social systems (Price, 2004). Understanding the Lagoon through the lens of socio-ecological systems allows us to move beyond the dichotomy of what Donna Haraway calls 'naturecultures', and Bruno Latour referred to as 'collectives', recognizing the mutual interdependence and embeddedness into the ecosystem of human and non-human life (Markaki, 2022). In this view, the Lagoon emerges as an assemblage of human activity and natural dynamics, where the socio-ecological landscape is shaped by multispecies relations.

# Practices of care - occasional, insular humanity | Care

This section highlights the practices of care in relation to the Venice Lagoon, associated with an occasional, insular humanity (Barbaro, 1992) that still cared for the fate of the Lagoon, with the general notion of care. In the past, in fact, communities and institutions cared for this space through interventions specifically aimed at preserving the Lagoon, which are explored in depth in some of the literature that touches on the subject: Trevisan (1715), Sabbadino (1550) and D'Alpaos (2010a). These practices can be read in light of De La Bellacasa's (2017) reflection that care is a material, affective and political practice that implies attention to and responsibility for what makes life possible. In this sense, the historical works and interventions aimed at maintaining the balance of the Lagoon were not just technical responses, but genuine relations of care (Markaki, 2022) toward a fragile and changing environment, capable of recognising the interdependence between humans and the environment within the Lagoon's socio-ecological system.

# That moment that everything changed | Modernity

For Bruno Latour (1993), modernity is an ideological construction that artificially separates nature from society, past from progress. This is crucial to understand how modernity has forever altered very important and powerful dynamics in the context of the Lagoon of Venice, literally separating the ecological and the social dimensions. Venice and its Lagoon in fact, bound to their own historical form of time, a circular one, were forced into this narrative at great cost: modernity breaks the circular temporality of the Lagoon-City (Tafuri, 22 febbraio 1993), threatening the socio-ecological balance that had existed for centuries. The moment when everything changed is identified in 1917, with the construction of Porto Marghera industrial area, an act of force aimed at dragging Venice into industrial modernity (Longhin, 2022; Volpi, 1939), solving once and for all the so-called "Venice Problem" (Chinello, 2018), referring to the economic desolation and constriction of the city (Longhin, 2022).

#### Presence & absence: ownership, stewardship and abandonment | Territorial agency - Land ethic

In the context of the Venice Lagoon, the notions of territorial agency introduced by Ostrom (1990), i.e. the collective capacity of local communities to care for and manage the commons, including their own territories, and Leopold's (1949) land ethic, intended as a sense of deep ecological responsibility that aims to "preserve the integrity, stability and beauty of the biotic community' (Leopold, 1949), can help to read the dynamics of presence and absence of communities and institutions. Presence is articulated into ownership and stewardship: on the one hand, privately held lands are important in protecting ecosystems and biodiversity (Morrisette, 2001) even if they of course mean the exclusion of most people from them; on the other hand, stewardship, understood as an act of collective care of the territory, has a lower degree of presidium. of but a higher degree of accessibility. Absence manifests itself in abandonment caused by institutional and social disengagement and triggers positive feedback loops (Palmer, 2022) that accelerate environmental degradation and socio-cultural erosion.

# Practices of degradation – inevitable, urban humanity | Anthropocene

According to Ellis (2014), the essence of the Anthropocene, defined by Crutzen & Stroermer (2000) as the epoch in which humans have become a major geological force with clearly discernible global effects, is the creation, through the transformation of the Earth's biosphere, of anthropogenic biomes: environments altered by humans in which the human niche is established, unlike other species, which change their behavior and character to adapt to their environment. The Lagoon of Venice is a clear example: The Venetians did not adapt to the Lagoon, they built it. However, in the case of the Venice Lagoon ecosystem, the effects of human activity did not stop with its anthropization. As Baldacci et al. (2022) and D'Alpaos (2010a) show, those who manage this adaptive infrastructure that the La-

goon is, are now producing practices of degradation that threaten the very niche that sustained Venice, this designed socio-ecosystem.

The Venetian my interdisciplinary effort | Interdisciplinarity
In Politics of Nature, Latour (2009) cal-

In Politics of Nature, Latour (2009) calls for a rethinking of interdisciplinarity as a political and cognitive device that allows human and more-than-human actors to interact within an ecological democracy, questioning the idea, product of the Anthropocene, that there is a clear separation between scientific facts and political values. This approach is useful to address complex and systemic phenomena at the territorial

level, using different methods. From participatory ones like the Community Voice Method (Cumming & Norwood, 2012) to experimental processes like the Parlement de Loire (de Toledo, 2021), it shows how interdisciplinarity is above all a practice of listening, restitution and collective construction. In my research, I start from this notion to construct an interdisciplinary methodological practice that links urbanism, ecology, visual arts, environmental studies and participatory practices. In the context of the Venice Lagoon, this approach finds fertile ground: as reported in some of Baldacci's (2023), Bassi's (2021) and Guaraldo's (2021) editions of the publication Lagoonscapes, cura-

ted by Ca' Foscari University as part of the NICHE program, a hybrid ecosystem of research and action has formed among artists, scientists, activists and institutions, in synergy with which this research assumes to operate.

# Relationships of will, and action | Intentionality

Intentionality, as defined by Anscombe (1957), is the concept that guides human action, what distinguishes an action from a mere movement of the body. At the territorial and collective level, it echoes Ostrom's (1990) previously explored concept of territorial agency. In the Venice Lagoon, also looking at the previously defined panora-

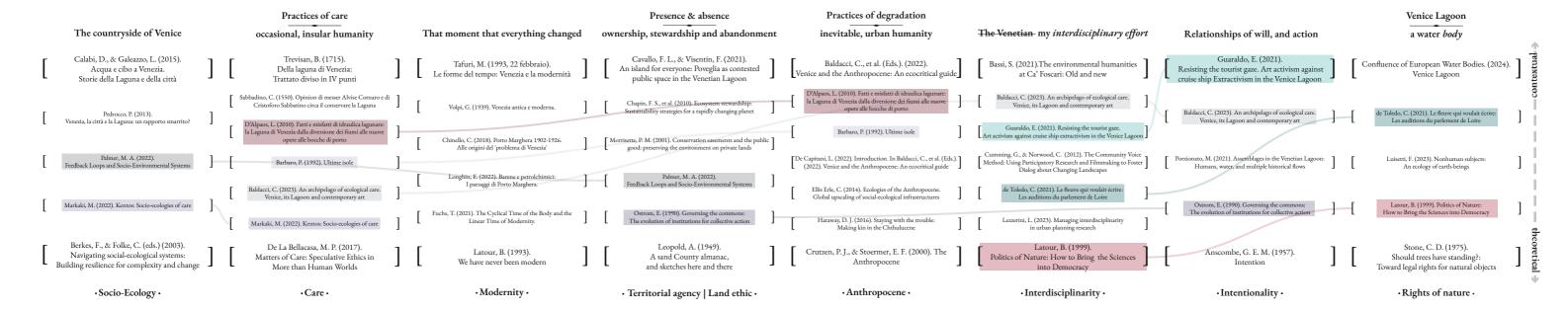
ma of interdisciplinarity, it is possible to identify a series of relationships of will, operated by communities and institutions, collectively or individually, based on intentions that are then translated into actions. As outlined by Porzionato (2021), these practices develop in a complex context of intricate relationships between heterogeneous agents and forces. These are clearly distinguished from most relationships with the ecological context, which often appear weak, fragmented, or nonexistent.

### Venice Lagoon – a water body | Rights of nature

The concept of rights of nature was first introduced by Stone (1972) with

Should Trees Have Standing?: Toward legal rights for natural objects, which argued that ecological entities could and should be recognized as subjects with legal rights, even if they are non-human (Luisetti, 2023). Both Luisetti (2023) and Latour (2009) take up this perspective and radicalize it, the first, from a philosophical point of view and, the second, from an institutional point of view, proposing an ecopolitical reform of our institutions through the idea of the Parliament of Things (Latour, 1993), which has also been tried to be put into practice through experiences such as the Parliament of the Loire (de Toledo, 2021). This perspective is also gaining ground in the context of the

Lagoon of Venice, where there are some who are beginning to see the Lagoon no longer as a resource to be managed, but as a subject to be listened to and represented. The European network Confluence of European Water Bodies (2024) is also moving in this direction. It is precisely with this network and the local actors who are embracing this perspective that I am working to imagine the Lagoon as a living body of water, capable of entering the public sphere through new forms of representation and agency, like a new legal ecology.



### PROBLEM STATEMENT

In the past, Venice, its **Lagoon**, and its **islands** formed a **unified ecological**, **social**, and **economic system** essential to the city's survival, providing livelihoods, especially in terms of food production through agriculture, fishing, hunting and aquaculture, and space for public functions such as health, religion, and defense. This interdependent **socio-ecological system** resulted in the Lagoon and islands being cared for and maintained as a **vital resource**.

Today, however, with the advent of modernity and the loss of traditional functions, the Lagoon and islands no longer play the central role they once did in sustaining the city and are therefore no more seen as valuable, leading to a status of abandonment. This devaluation has facilitated the emergence of destructive practices, resulting in environmental degradation and socio-cultural erosion. At the forefront of this situation are issues such as the sale of the public heritage represented by the islands, the pollution of the Lagoon by human activities and the morphological alteration of the water body caused by interventions such as the excavation of industrial canals or even the construction of the MOSE system: intended to protect Venice from high tides, it means death for the Lagoon instead. In the absence of effective preservation and local stewardship, the Lagoon's socio-ecological equilibrium is at risk, requiring a new form of protection to restore its value and ensure its safeguarding.

# **RESEARCH QUESTIONS**

How have practices of local communities and authorities linked to the Venice Lagoon historically contributed to its protection and vitality, fostering a **socio-ecological** equilibrium?

What are the main factors causing the current direct and indirect exploitation of the Venice Lagoon and its islands, directly resulting from the abandonment that has occurred in the area, and how do these forces contribute to <a href="mailto:environmental degradation">environmental degradation</a>
and socio-cultural erosion?

What could be the key steps needed to implement a :---> legal entity for the Venice Lagoon?

How can the institution of a

legal entity as a new form of protection for the Venice Lagoon safeguard it from environmental

degradation and socio-cultural erosion by enabling new-old social and productive functions aligned with the rights of nature

framework? -----

What new-old social and productive functions,
aligned with the new rights of nature framework,
can be (re)introduced into the islands and Lagoon
fabric to restore its value and ensure long-term
socio-ecological sustainability?

a while before future

present

futi

## **METHODS**

The methods I employed are linked to two categories: knowledge and exprience, prior and to gain.

Having lived, worked, and studied in the context of my research, and having lived, worked, and studied with the challenges I am addressing, I am deeply familiar with them. For this reason, I want to use this prior knowledge and experience as tools for both research and fieldwork, enabling me to gain new knowledge and experiences and to actively contribute to meaningful change while treating this project as an investment for the future.

Each method is designed to achieve specific outputs and address one or more aspects of my research questions.

#### Literature review

To understand the role of the Lagoon as the "countryside" of Venice within a socio-ecological system.

To explore both traditional and contemporary practices of care and degradation in the Lagoon environment and islands.

To deepen the exploration of environmental humanities and the concept of rights of nature.

# **Critical mapping**

Of territorial agency and the spatial presence or absence of communities and institutions: ownership, stewardship, and abandonment in the Lagoon and its islands.

Of existing practices of environmental degradation.

#### "Backwards back-casting"

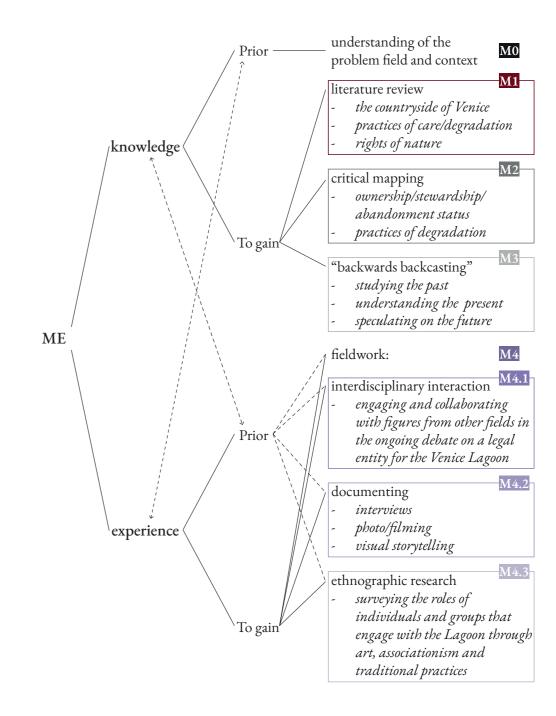
Studying the past, understanding the present and speculating on the future. Let us consider that our present represents the (less than ideal) future envisioned by a designer in the past, what happened in the steps in between for our present to look as it does now?

#### **Fieldwork**

Interdisciplinary interaction: engaging and collaborating with figures from other fields in the ongoing debate on a legal entity for the Venice Lagoon

Documenting: interviews, photo/filming, visual storytelling

Ethnographic research: surveying the roles of individuals and groups that engage with the Lagoon through art, associationism and traditional practices



#### **EXPECTED OUTPTS & TRASVERSAL AIMS**

The expected outcomes of this research are categorized into outputs derived from the analysis, process, and project, with the first two contributing to the development of the third. Each expected output is linked to one or more methods and is designed to address one or more research questions. The connections between methods and outputs are detailed in the accompanying diagrams.

The outputs of the process will be crucial to achieving the first outcome of the project. Due to their site-specific nature, they can already contribute to shaping this path. Specifically, I envision this as a combination of references to similar experiences and the definition of a possible step-by-step site-specific process. This will integrate lessons learned from my participation in debates on the subject and include a narrative about the Lagoon's entity itself, shaped by the voices and stories of its inhabitants.

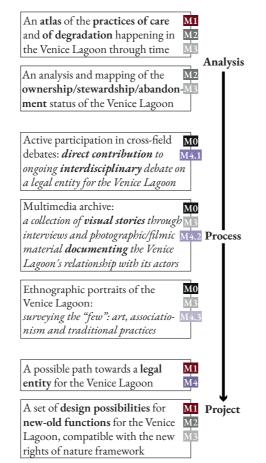
For the second project output, this builds upon the first. The prior institution of a legal entity for the Lagoon will be taken as a given starting condition, and

the design proposal will explore opportunities for the (re)introduction of newold functions within the Lagoon and islands. This phase will involve identifying the current functions taking place in the Lagoon and its islands and assessing them against the principles of the rights of nature framework. Functions incompatible with this framework will need to cease, others may require adaptation, and new functions can be introduced. The design interventions will focus on implementing these changes.

Finally, the trasversal aims of this research are the following:

Safeguard of the Venice Lagoon and islands social, economical and ecological sphere and of their relationship with the city. As soon as possible

Personal journey: how I define the project and how the project defines me



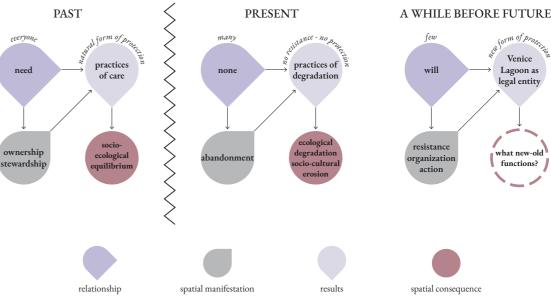
## **CONCEPTUAL FRAMEWORK**

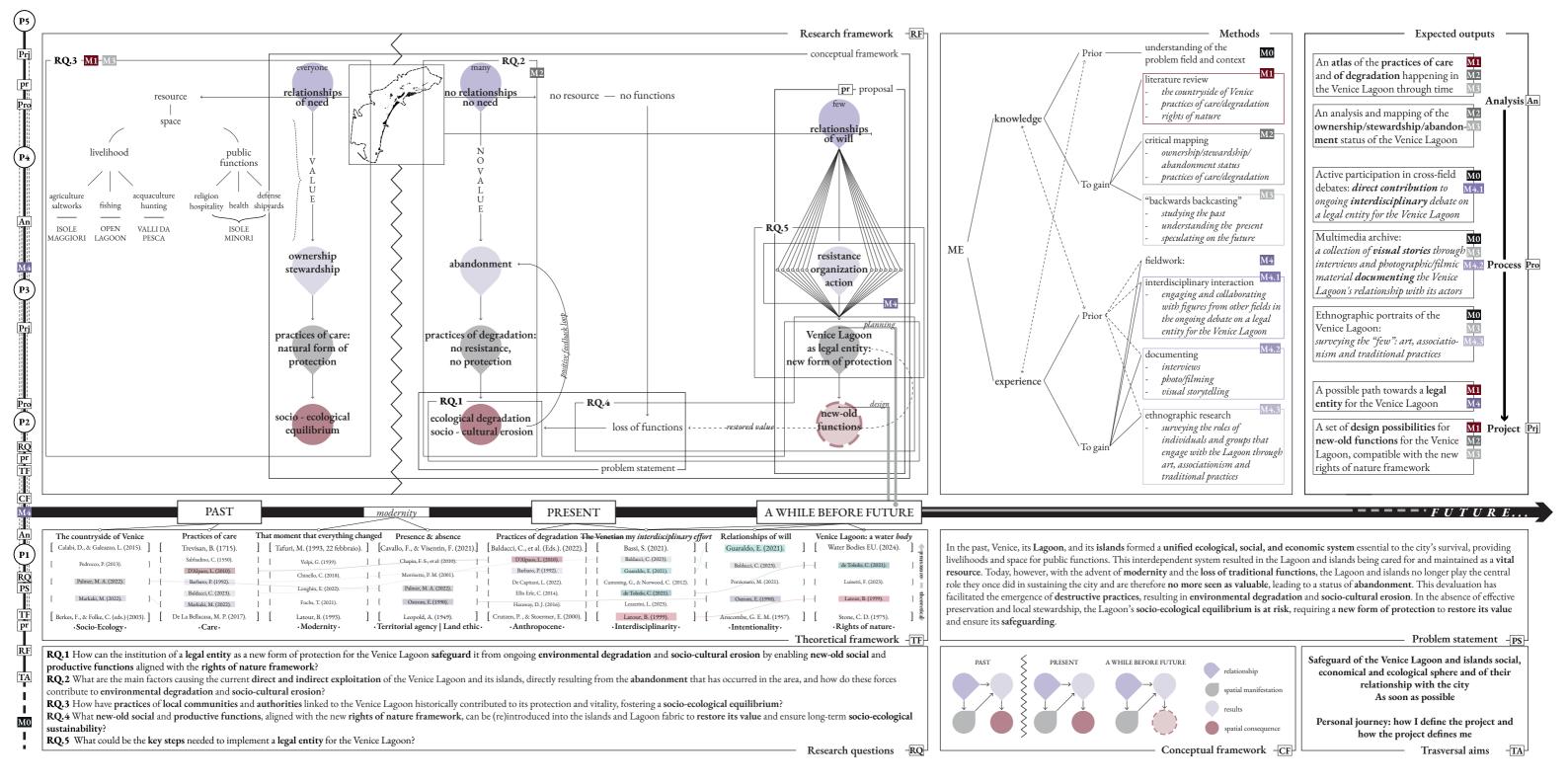
The conceptual framework is built on key elements from the research framework, including the four temporal moments around which my narrative unfolds: past, modernity, present, and a while before future. These moments are associated with three types of relationships between the Lagoon and islands and communities and institutions.

In the past, the relationship was based on need, ensuring care and active management of the territory. Modernity transformed this relationship into a non-relationship, driven by the disappearance of need and the indifference of both institutions and communities. However, alongside this absence, there are still a few actors who maintain a relationship, not of need, but instead of will with the Lagoon. Around the actions of these actors lies the potential to trigger change in the near future.

Each type of relationship has a spatial manifestation, producing tangible impacts on the territory. This framework highlights how socio-ecological rela-

tionships profoundly influence both environmental and societal well-being through their spatial manifestations and consequences. Specifically, it aims to demonstrate that, despite their limited presence, these relationships of will can spark systemic change. Recognizing the Venice Lagoon as a legal entity represents a potential new form of protection, one that could redefine space through new functions, guiding the system toward a more sustainable socioecological balance.





# Narratives - analyse

Relationships of need

# Past

I - The countryside of Venice II - Practices of care | occasional, insular humanity

#### THE COUNTRYSIDE OF VENICE

#### Lagoon, islands. The countryside of Venice

The Lagoon and its islands are the countryside of Venice: a socio-ecological landscape, an amphibious space where nature and culture have been intertwined for centuries in forms of coexistence and interdependence. In the past, Venice, its Lagoon, and its islands were part of the same complex yet vital ecological, social, and economic system. They still are, but the way this system works has changed profoundly.

As extensively explored in Water and Food in Venice: Stories from the Lagoon and the City (Acqua e Cibo a Venezia: Storie della Laguna e della Città), the catalogue curated by Donatella Calabi and Elisabetta Galeazzo (2015) for the exhibition held at the Doge's Palace in Venice from September 26, 2015 to February 14, 2016, it is precisely within this constantly evolving system, morphologically but not only, that a network of relationships of need between human communities and natural resources has developed over the centuries, shaping a uniquely productive territory. In the past, the Lagoon and its islands were essential to Venice's survival, as they provided resources the city, surrounded by

water and marshland, could not obtain elsewhere. The Lagoon thus took shape as an urban countryside, an extension of the city-lagoon that hosted the essential activities that ensured its prosperity. From food supply to care, from military defense to the cure of bodies and souls, the functions located in the Lagoon and on the islands made it a countryside closely linked to the city, since these were also public functions, tied to infrastructures and institutions crucial to the lives of venetians: monasteries, hospices, lazarets, military outposts, and more. The Lagoon was therefore what the countryside was for many other cities: an ecological and social interface between the city, the archipelago, the mainland, and the open sea. It mediated between urban space, hinterland, and trade routes, forming a basin of production, transformation, conservation, and redistribution, a place of transit, a safe harbor, a hybrid and layered space where agricultural, port, religious, health, and military practices overlapped. In particular, the Lagoon served two main categories of functions:

Livelihood functions, related to

food supply through fishing and fish farming, agriculture, grazing and livestock, hunting, and salt extraction.

 Public and collective functions related to spiritual, health, and defense needs: monasteries, hospitals, lazarettos, and fortifications.

These practices thus created a man-made environment, but in a perfect socio-ecological balance with its ecologies, a dimension that reflects a sharp territorial intelligence rooted in the Lagoon context.

From here, it is possible to reconstruct the mosaic of functions that once populated the Lagoon: a landscape made up of floating gardens /orti/, fish farms /peschiere/, saltworks /saline/, chicken coops, residual woods, boat sheds /cavane/, and grazing flocks, a productive and social archipelago that provided nourishment, work, shelter, and care.

The Lagoon landscape must be understood as countryside too, as it is a place of cultivation (vegetables, fruit, vineyards) and provisioning (fish, salt).

For Venice, the Lagoon must be experienced neither as an obstacle nor as a neutral space: in history, in the governance practices of the Serenissima, and in the perception of its citizens, the city, the islands, and the Lagoon are a single ecosystem, unparalleled in the balance between the natural environment and a strong yet respectful human presence

Salvatore Settis, Acqua e Cibo a Venezia

fig. 03/01 L. TOEPUT, VIEW OF THE VENICE LAGOON, 1576



fig. 03/02 B. FANTELLO, AREA OF THE LAGOON EAST OF TORCELLO WITH THE ISLANDS AND FISHING FARMS OF THE COSTANZIACO AND AMMIANA ARCHIPELAGO, 1572



OF THE BRENTA DELTA AND THE SURROUNDING ISLANDS, 1540



fig. 03/04 A. EMO, DRAWING OF THE LAGOON OF VENICE, 1763





#### **Livelihood functions**

Lagoon subsistence was structured around various productive practices, often interrelated and spread across the different landscapes of the Lagoon: the larger islands /isole maggiori/ and the coastal strips /lidi/, the smaller islands /isole minori/, the fish farms /valli da pesca/ and the open Lagoon. Fishing and fish farming /vallicultura/, agriculture, pastoralism and livestock raising, hunting and salt extraction were the main components of the Lagoon's productive and socio-cultural landscape and will be explored individually in this section.

#### Fishing and fish farming

Since ancient times, even before the permanent settlement of Rialto (Zug Tucci, 1992), lagoon populations have drawn their sustenance from the brackish waters, practicing a widespread, seasonal form of fishing adapted to the environment's unstable morphology.

Fishing was carried out in two main ways:

- Free or "wandering" fishing (pesca vagantiva): practiced in the open Lagoon, in canals, salt marshes (barene), mudflats (velme), and marshes (the publica communis).
- Enclosed fish farming (pesca valliva): practiced in enclosed and managed fish farms, where the reproductive and migratory cycles of fishes were monitored and optimized.

Fishing was a vital activity in the Lagoon. Deeply rooted in the local identity and culture, it was fundamental for two reasons: on the one hand, fish was part of the daily diet of venetians, who bought it at controlled prices at the markets of Rialto and San Marco; on the other hand, due to the collective and family-based nature of the work, fishing constituted the main source of livelihood for many of the inhabitants of the Lagoon islands. Among the communities that specialized in it were the Nicolotti (from San Nicolò dei Mendicoli in Venice), the Chioggiotti (from Chioggia, at the southern edge of the Lagoon), the Buranelli (from the island of Burano in the Northern Lagoon), and the Poveggiotti (from the island of Poveglia, in the Southern Lagoon). These groups were considered to be the most knowledgeable experts of the Lagoon. Fish farms (nassarium or piscaria) represented a more profitable form of land management based on fishing, through the construction of large aquatic estates owned by monasteries or nobility. Bordered by reeds and marsh barriers, they functioned as semi-natural environments: taking advantage of the natural seasonal migration of fish from deeper to less deep and from colder to warmer areas of the Lagoon, they allowed for the attraction, containment and harvesting of fish. Both fishing methods were subject to strict institutional regulations, aimed at maintaining the Lagoon's natural balance.

Fish was an integral part of the daily diet of the Venetian people, who would buy flavorful mullets, sea bass, gilthead bream, shrimp, squid, cod, herrings, sardines and mussels — to name just a few of the species living in the Lagoon — at the Rialto (or San Marco) market, where prices were kept affordable.

Paola Lanaro, Acqua e Cibo a Venezia

IN THE PREVIOUS PAGE:  $\rm fig.~o3/o5$  SECTOR OF THE LAGOON NORTH OF VENICE WITH THE LAGOON'S EDGE AREA BETWEEN TESSERA AND THE DESE RIVER,  $\rm 1501$ 

fig. 03/06 VALLE MILIGON (OR MILISON) AT THE PORT OF MALAMOCCO, 16th CENT.

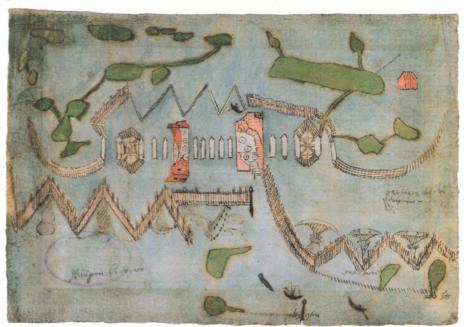


fig. 03/07 G. BELLA, FISHING IN CANAL ORLANDO, 18th  $_{\rm CENT}$ 



, 03/08 D. DE VRIES, THE FISH SELLER IN VENICE, c.



#### Agriculture

Despite the amphibious nature of the Lagoon, with its salty waters and unstable soils, venetian communities were able to use the emerged lands with agricultural intelligence. From the Early Middle Ages, horticulture, fruit-growing, and viticulture spread both in the city and on the islands, giving rise to a system of floating gardens that ensured the daily supply of the city-archipelago. This urban and insular agriculture was based on a close daily relationship between Venice and its Lagoon. In fact, the widespread and productive Lagoon agricultural system extended across the margins of Venice itself, particularly behind Cannaregio, behind Giudecca and around San Pietro di Castello, as well as on the islands, including Torcello, Mazzorbo, Vignole, Ammiana, Treporti, Lio Piccolo, and Lio Maggiore; on the coastal strips like Sant'Erasmo, Cavallino, Pellestrina, Malamocco, and San Nicolò al Lido; and along the Lagoon's edge (gronda lagunare), particularly in Chioggia, especially the Brondolo area, and the Brenta Delta, which were major production hubs. Gardens, orchards and vineyards were abundant throughout the Lagoon. Every day, boats and sandoli loaded with local produce would leave these places and head to the markets at Rialto and San Marco, where fruits (apples, pears, melons, oranges, figs, cherries, peaches, pomegranates, pistachios, walnuts and hazelnuts), vegetables (cabbages,

turnips, onions, artichokes, pumpkins, cucumbers, fennel, peas, spinach, savoy cabbage and salads), aromatic herbs (sage, rosemary, mint, bay leaf, lavender and basil) and wine were sold. The Lagoon's microclimate was also particularly favorable to legume cultivation. Cereal production, however, was scarce: the Republic therefore had to rely on a system of imports from the mainland and the Levant. The grain was then ground in the mills along the Sile River, in an integrated system that linked the Lagoon with the fluvial hinterland. What emerges is an amphibious agricultural model, based on diversification, resilience, and proximity. Agricultural production was not only strictly functional, but also an act of care and a form of landscape composition.

Around a city of the ancien régime, agriculture is organized in concentric circles. The closest ring is reserved for perishable goods, while the outer ones are used for products that better withstand transport and the passage of time. Even though it is surrounded by water, Venice is no exception.

Mauro Pittero, Acqua e Cibo a Venezia

fig. 03/09 C. SABBADINO, PIANTA DE VENETIA, 1557



fig. 03/10 MILLS ON THE SILE RIVER IN NOGARÈ AND QUINTO DI TREVISO, 1740

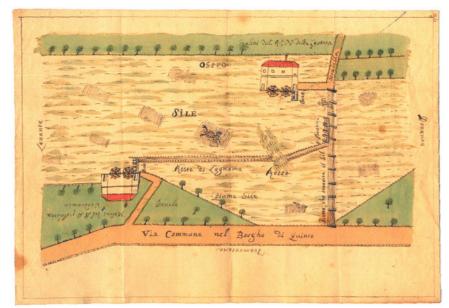


fig. 03/11 D. GALLO, DRAWING OF THE UNDERSIGNED VINEYARDS AND FALLOW LANDS LOCATED ON THE LIDO OF SAN RASMO, 1552



 $_{\rm fig.~03/12}$  VINEYARDS OF HIS EXCELLENCY MARCELLO ON LE VIGNOLE, 17th CENT.



fig. 03/13 HOUSES, GARDENS, AND VACANT LANDS OF THE COMMISSARIA OF PIERO BRUSTOLADO NEAR THE PONTE PICCOLO ON GIUDECCA, after 1474



fig. 03/14 P. FRAGIACOMO, LIFE IN THE LAGOON, c. 1890



fig. 03/15 PRICE CONTROL ESTABLISHED BY THE PROVVEDITORI ABOVE THE BECCARIE FOR THE SALE OF PORK MEAT, SAUSAGES, FEGATELLI, AND BEEF TRIMMINGS RESERVED FOR THE CORPORATION OF SAUSAGEMAKERS, 1716



#### Grazing and Livestock Farming

On the islands and in the coastal strips (lidi), agro-pastoral practices such as grazing, haymaking and the rearing of livestock were widespread. Although these activities were of lesser relevance compared to fishing and agriculture, they were still essential to the balance of the Lagoon's food economy. The grazing of flocks and herds was accompanied by poultry and livestock farming (henhouses, pigsties, stables) which were very common in monasteries and island communities. These communities bred chickens, geese, ducks, goats, pigs, and cows, mainly for their own consumption but also for trade with Venice and the mainland, where poultry, eggs, milk and meat were sold in local markets or used to supply hospitals,

 $_{\mathrm{fig.\,03/16}}$  Z. A. LOCHA, PERILAGOON TERRITORY AT THE NORTHERN MARGINS OF THE LAGOON ALONG THE COURSE OF THE SILONCELLO STREAM AND THE RIGHT BANK OF THE LOWER SILE RIVER. 1556



lazarets and charitable schools. In fact, contrary to what we might think today, meat was probably as important as fish in the Venetian diet. In the Cannaregio district, in particular, there were numerous butcher's shops in addition to the central slaughterhouse (macello) itself (Bettinello & Ongaro Sartori, 2022). The sources thus portray an unexpected environmental picture: that of an agricultural lagoon, very different from the present one, where animals wandered from one island to another, crossing canals and reaching the fish farms (valli); in the Northern Lagoon, small flocks could even reach the shores without being transported by boat, following paths that have since been identified by archaeologists.

# Hunting

Another traditional key resource for the subsistence of Lagoon communities was hunting. The Lagoon was in fact an ideal habitat for the stopover of numerous waterfowl, which were the main targets of hunting activities. Like fishing, hunting was regulated by contracts for the management of Lagoon areas, which always included the joint concession of fishing and hunting rights (ad piscandum et auccellandum). Only two species were required to be reported by the concessionaires: the wild duck (anas boscas, or mazorin) and the wigeon (mareca penelope, or ciosso), but other species were also hunted in the Lagoon, including geese, quails, grebes,

cranes, partridges, pheasants, curlews and godwits (dal Borgo, 2007) as well as mammals such as wild boar, roe deer, deer, wild goats, rabbits and otters in the wooded areas of the Lagoon's edge. Various hunting tools were employed to catch birds, such as decoys made from taxidermied or artificial birds, traps, bird snares (roccole) and nets (Zug Tucci, 1992).

#### Salt Extraction

Salt extraction, documented just before the year 1000, is considered the activity that brought the Venetians their first wealth. Essential for the preservation of food, salt was among the first resources to be systematically extracted from the Republic's salt flats and traded throughout the Venetian Lagoon and the Mediterranean. It provided the Venetians with their first economic sustenance, as well as the earliest forms of territorial occupation and settlement (Hocquet, 1990). Initially, the Northern Lagoon supplied most of the salt, a fact still recalled in local place names such as La Salina and Sette Soleri. Some salt pans were also located in Venice itself, in the Castello district /sestriere/. Later, production shifted southward and became concentrated between Malamocco and Chioggia, which by the 12th century had become one of the Mediterranean's largest salt production centers. After a gradual decline, salt production ceased at the end of the Middle Ages.

fig. 03/17 J. TINTORETTO, THE CREATION OF ANIMALS, 1553



fig. 03/18 J. DE' BARBARI, [THE SALT WEREHOUSES] VENETIE MD (DETAIL), 1500



ON THE RIGHT: fig. 03/19 V. CARPACCIO, HUNTING IN THE 'VALLE', 1490-1495 The upper panel of the diptych depicts the winter activity of **bird hunting**, specifically the hunting of grebes, small marsh birds. The landscape is presented without any grandiose evocation, but with a descriptive attention to the **boats**, called 'fisoli,' to the salt marshes. and to the 'casoni' in the distance. The hunting scene in the valle does not illustrate any particular festive occasion, nor a specific political or public ceremony, nor yet the pastoral representations of lagoon banquets, but inaugurates, with striking precision, the long history of the representation of the city-and its activitieson the water.

Isabella di Lenardo, Acqua e Cibo a Venezia



#### Public and collective functions

The second category of functions carried out by the Lagoon is that of public functions. In fact, the Lagoon was not only a productive space but also an institutional territory, dotted with religious, military, and health settlements. Among these, in the Lagoon monasteries, subsistence and public functions were closely intertwined. Within these complexes, there were vegetable gardens, chicken coops, vineyards, refectories and bakeries, all aimed at self-sufficiency and trade with the outside world. Food production was both as a means of survival and an economic activity, as evidenced by examples of "proto-industrial" processes, such as the production of cakes using eggs from their own poultry in the convent of Santa Croce on the Giudecca island.

# Religion

The Venice Lagoon was dotted with numerous religious settlements, such as monasteries, hermitages, convents, abbeys, and cemeteries (Basso, 2021). Of very ancient origin, some dating back to the 7th and 8th centuries, there were as many as 60 such institutions in the Northern Lagoon. In addition to food supply, these places catered for spiritual needs and hospitality, with dormitories and refectories being widespread. They served as multifunctional centres within a complex system that combined spirituality, productivity, and care (Vecchi, 1977).

#### fig. 03/20 H. DE COMMINELLES, VENETIA, 1470



fig. 03/21 VIEW OF THE ISLAND OF CERTOSA WITH VINEYARDS



 $_{\rm fig.~03/22}$  F. BATTAGLIOLI, VIEW OF THE FROZEN LAGOON FROM SAN GIOBBE TOWARDS THE ISLAND OF SAN SECONDO,  $_{\rm 1788}$ 



#### Health

of a network of healthcare facilities, namely lazarets and hospitals, located across various islands of the Lagoon. The Republic of Venice chose to locate these functions on islands primarily to contain epidemics, particularly the plague outbreak of the 14th century. In 1423, the Republic banned access to travelers from infected areas and decided to establish a hospital for plague victims on the island of Santa Maria di Nazareth, this became the Lazzaretto Vecchio. In 1468, the construction of the Lazzaretto Nuovo was ordered, near the island of Sant'Erasmo, envisioned as a place of quarantine and disinfection for people and goods before they entered the city (Bonuzzi, 1996). In the following centuries, other islands were added to this archipelago, often through the transformation of former monasteries already dedicated to hospitality, assistance, and care for the sick: in 1725, the island of San Servolo became a hospital for mental illnesses; from 1873, the island of San Clemente housed the Central Female Asylum of Veneto; the island of La Grazia, originally a shelter for pilgrims to the Holy Land in 1264, became an infectious disease hospital at the end of the 19th century; Poveglia, a flourishing economic and demographic centre until the late 14th century, was turned into a lazaret in 1782 and later in a convalescent facility; finally, Sacca

Venice's hospital archipelago consists

Sessola, an artificial island built between 1860 and 1870, became home to a hospital for endemic infectious diseases in 1892 (Crovato & Crovato, 1978; Mancuso, 2002).

Defense

The Venice Lagoon also played a crucial military role for the city: with an impressive defensive system made up of fortresses, forts (octagons and redoubts), barracks and powder magazines distributed among the islands, it functioned as a strategic militarized landscape in which the smaller islands played a fundamental role in defending the Serenissima (Mancuso, 2002). In this context, too, many monasteries underwent a change of use, becoming,

during the 19th century under Napoleonic and then Austrian rule, military installations, barracks or powder magazines(Cipriani, 2017). Notable examples are San Secondo, Sant'Angelo della Polvere, Madonna del Monte, and San Giacomo in Paludo. Another approach in the 19th-century was the construction of completely new military structures, most notably the eight lagoon batteries (San Marco, Carbonera, Tessera, Campalto, Trezze, Campana, Ex Poveglia, Fisolo), which became part of the defense system of the Venetian Republic, alongside the five lagoon octagons (Ca' Roman, San Pietro in Volta, Alberoni, Campana, and Poveglia) (Crovato & Crovato, 1978).

fig. 03/23 MAP OF THE CITY AND FORT OF CHIOGGIA, 1781



fig. 03/24 F. GUARDI, LAZZARETTO VECCHIO, 1770



#### The Lagoon as the countryside of Venice: a socio-ecological system

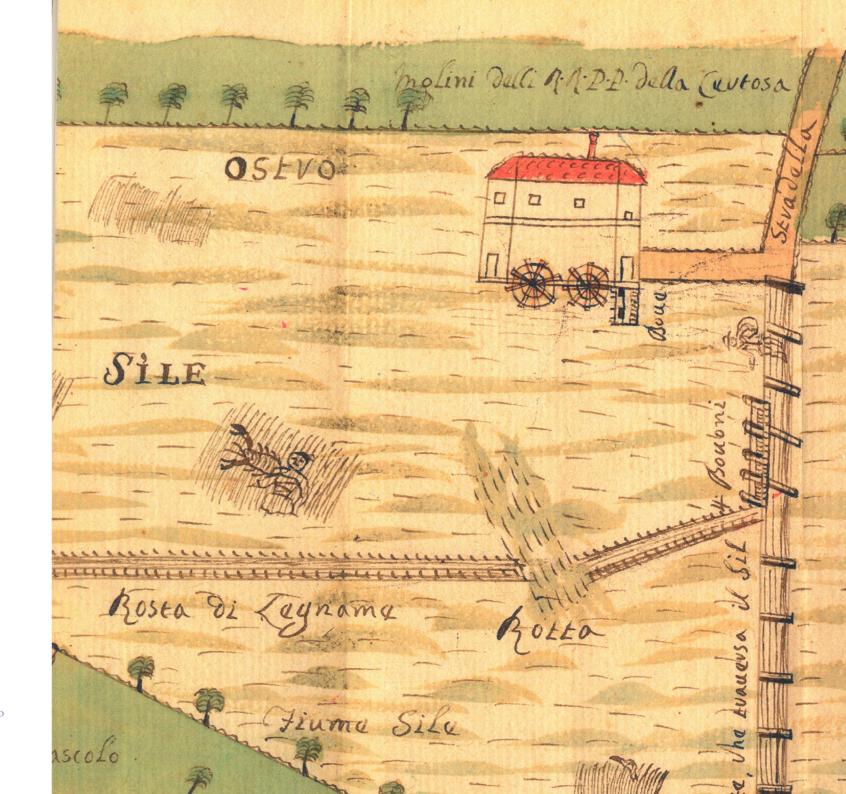
Viewing the Lagoon as the countryside of Venice means understanding it as a socio-ecological system (SES), a hybrid territory where human societies and ecosystems are deeply interconnected and co-evolving. A socio-ecological system, as theorized by Berkes & Folke (1998, 2004), Janssen & Ostrom (2006) and Gunderson & Holling (2003) within the Resilience Alliance, is an integrated system in which social systems (communities, institutions, economies, and cultures) and ecological systems (ecosystems, natural resources, biodiversity) closely interact in a relationship of interdependence.

This system is characterized as a complex adaptive system (CAS) (Preiser et al., 2018), shaped by non-linear dynamic relationships, feedback loops, adaptability, transformability, and resilience. These topics are studied in the field of socio-ecology, an interdisciplinary field that analyzes these relationships to understand how such systems co-evolve over time, mutually influencing one another.

In particular, the concepts of adaptive cycles and resilience thinking are essential for understanding how these systems are capable of learning, adapting and transforming in response to internal and external perturbations. Applied to the Venice Lagoon, this theoretical framework allows for an interpretation of the historical complexity of the dynamic interactions between humans and nature, between the city and the Lagoon, and frames the socio-cultural functions of this space within a more structured understanding of co-evolution and co-dependence.

Unless explicitly stated otherwise, the information and the graphic material presented in this chapter are based on and ourced from the catalogue Water and Food in Venice: Stories from the Lagoon and the City, edited by Donatella Calabi and Elisabetta Galeazzo for the exhibition held at the Doge's Palace (September 26, 2015 - February 14, 2016).

fig. 03/25 MILLS ON THE SILE RIVER IN NOGARÈ AND OUINTO DI TREVISO (DETAIL), 1740



# **PRACTICES OF CARE** | occasional, insular humanity

The history of the human presence in the Venice Lagoon, as already mentioned, has been fundamentally shaped by a condition of necessity. In fact, the communities that inhabited the Lagoon and the institutions that governed it were absolutely dependent on the health and stability of the Lagoon environment for their survival, prosperity and security. They were engaged in a network of relationships of need with the environment in which they lived. Care, in this context, was not a voluntary or abstract attitude, but the inevitable and only possible outcome of this dependence. Without maintaining, without taking care of the fragile balance of earth and water, the Lagoon as they knew it would have disappeared, and with it, the entire human system it supported. It is for these reasons that we can see in this profound relationship the origin of the practices of care that will be explored in this chapter. Specifically, the reference is to the set of interventions, both material and normative, designed to protect the Lagoon, a series of efforts to adapt, alter, and regulate the landscape in order to sustain life. As known from the conceptual fra-

mework, this type of relationships are typical of the time identified as "past" and, with the advent of modernity, they weakened and evolved in the no-relationships characteristic of the present, which instead of practices of care, produce practices of degradation. A specific type of society, the one that Tiziano Scarpa refers to as "occasional" and "insular" in La città sospesa (2022), the foreword of the beautiful collection of tales *Ultime* Isole (1992) by Paolo Barbaro, is associated with this type of relationships and practices. In the first story of the book, Settesabbie, Paolo Barbaro describes the mythical inhabitants of the islands: they were few, isolated and intermittently active, but deeply connected to the environment they inhabited. He compares them to the "strict society-società stretta" (Scarpa, 2022) / "thick crowds-gente fitta" living in the city of Venice itself, the inevitable, urban humanity we will talk about in chapter 5. The Lagoon, compared to the city of Venice, is the space where everything is slower, lesser and more careful; the Lagoon is the Space of Care / lo Spazio della Cura/ and the people who inhabit it create a community of care.

If Venice once was and still is Venice thanks to its Lagoon, it is equally true that the Lagoon itself, a brackish basin of fragile balance, extending into the land yet created and nourished by the **sea**, would be far narrower, or perhaps would scarcely exist, had a city not settled at its center, wisely governed; had there not been debates and **actions** by some of its citizens who studied and defended its system, inspiring the provisions of governments. The aim was to save it from the two opposing fates that, over the millennia, nature's forces, if left to act freely, would have destined for it: to become land and marsh, or on the contrary, to return to being an arm of the sea.

Paolo Morachiello, Acqua e Cibo a Venezia

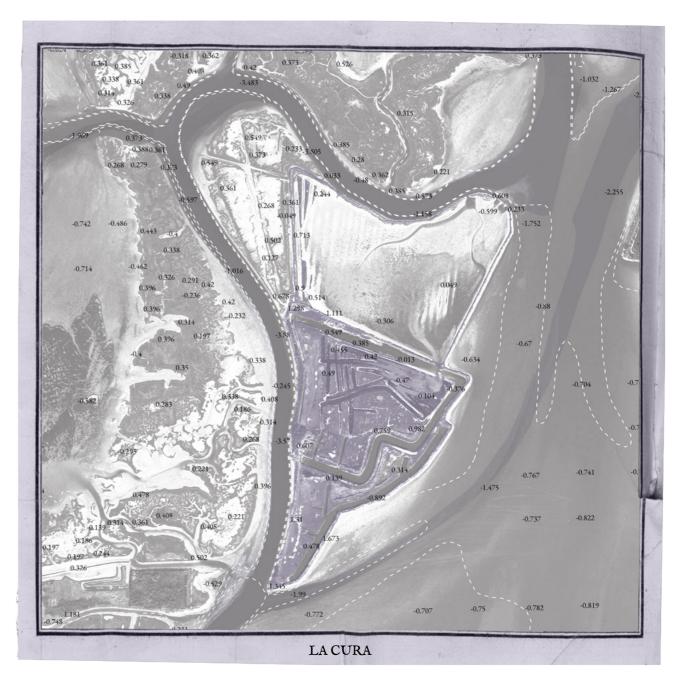


fig. 04/01 ISOLA DELLA CURA, LAGUNA NORD (LIT. "ISLAND OF CARE"

#### Preserving by transforming: the paradox of care in the Venetian Lagoon

out of this need that care emerged. Care

This chapter examines the practices of care that have historically characterised the relationship between people and the Lagoon. It defines these practices within the specific socio-ecological context of Venice and traces them through two principal fields:

- the material interventions carried out to maintain the morphology of the Lagoon;
- the human activities controlled by the extensive regulatory systems established to control and safeguard the ecological integrity of the Lagoon.

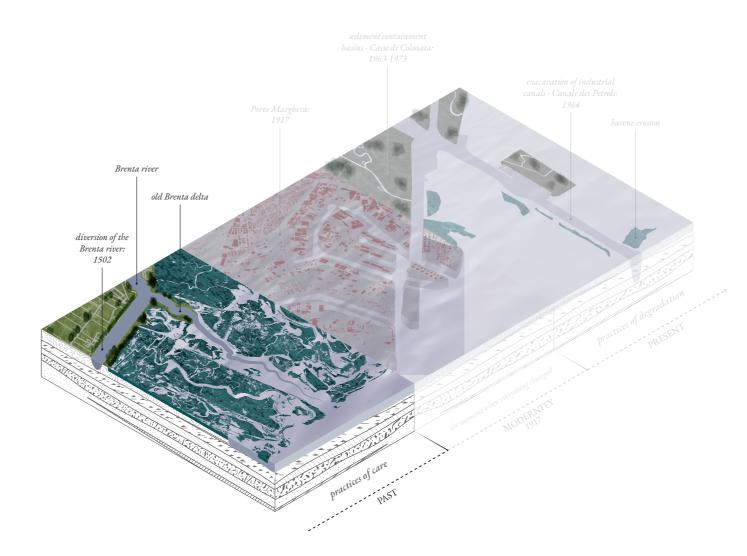
In the context of the Venice Lagoon, these practices of care take the form of a fascinating paradox: in order to preserve the Lagoon landscape on which they relied so much, communities and institutions had to alter it profoundly. Care for the Lagoon did not mean preserving and protecting it as such in its transitional character, in its natural evolution, but above all it meant the will to preserve it as it was perceived and experienced at that historical stage when the first people had chosen it as the cradle of their civilisation. The Lagoon had an intrinsic value for the Venetians, and the Republic of the Serenissima and the communities that lived in it were in a relationship of mutual necessity that bound them to it for their survival. There was no other choice, and it was

took two different but complementary directions: on the one hand, to contain the natural power of the rivers and the sea so that they did not radically transform the Lagoon landscape; on the other hand, to limit the impact of human activities and regulate the use of resources in order not to compromise the delicate balance of the Lagoon. This double front of intervention defined the Venetian practices of care, articulated at the technical, political and social levels, combining great hydraulic works with a meticulous system of regulation. In fact, over time, the need to preserve this fragile amphibious environment led to the gradual development of increasingly sophisticated forms of governance. In 1505, the year in which the nobleman Bernardo Giustiniani sounded the alarm about the Lagoon's progressive silting up, the Council of Ten /Consiglio dei Dieci/ established the Sages and Executors of the Waters /Savi ed Esecutori alle Acque/, later known simply as the Magistrato alle Acque (Venice Lagoon Authority) (Calabi & Galeazzo, 2015), a permanent institution dedicated to the management of the water of the Lagoon, as well as the monumental works of the Conterminazione Lagunare initiated in 1791 (Armani et al., 1991). These have been the great instruments of Lagoon management, political and operational manifestations

of this will to care: in fact, these initiatives increasingly show how the Lagoon was not considered as a natural given, but as an environment to be carefully shaped, protected and managed. From this point of view, the main problem to be addressed during this period was the worrying process of siltation, which negatively affected the growing development of residential settlements and the economic and military activities of the Republic (D'Alpaos, 2010a).

However, the heated debate between the citizens Cornaro and Sabbadino at the turn of the fifteenth and sixteenth centuries shows that there was no one single idea on how to preserve the Lagoon. The central issue was the maintenance of a precarious balance between opposing natural elements: a tension effectively depicted by Bernardo Trevisan in the allegorical frontispiece of his 1715 treatise Della Laguna di Venezia, where land and sea are depicted in an endless conflict, "opponesi elemento ad element" (two elements oppose each other), as the inscription above it reads (Luzzini, 2022). This motto recalls the need to maintain an unstable equilibrium, intervening at times to counteract the siltation caused by the rivers and at other times to resist the erosive action of the sea.

On the one hand, Alvise Cornaro, a member of the Venetian aristocracy, an agronomist and landowner, argued that



 $0 ag{61}$ 

it would be necessary to divert the rivers out of the Lagoon towards the sea, then to reclaim the marshy areas where the river deltas were located, and finally, restricted as it was, to embank the Lagoon. This would have created new land to be reclaimed and would have given the Lagoon precise and stable boundaries, as well as solving the problem of the risk of further swamping due to the a complex and sometimes paradoxical action of the rivers.

On the other hand, Cristoforo Sabbadino, an official of the Magistrate of Waters and an expert in hydraulics, argued that it was necessary to preserve the amphibious nature of the Lagoon, to keep it as wide as possible and to prevent excessive sedimentation, thus protecting it from agricultural encroachment: in fact, as much space as possible should be given to the tidal wave to expand, as he believed that the force of the sea was the only real weapon against the risk of siltation, the only way to remove sediment from the Lagoon through the inlets (Calabi & Galeazzo, 2015; Sabbadino, 1550a). The ultimate goal of his position was to protect the Lagoon as a vital organ of the city itself, a position that ultimately proved successful and on which the articulation of this research is based.

The confrontation between the stability desired by Cornaro and Sabbadino's intention to embrace the amphibious and mutable nature of the Lagoon thus ended with the predominance of the latter's position from an overall per-

spective, but the Serenissima also accepted Cornaro's proposal to divert the rivers out of the Lagoon, not so much to obtain a strip of land to be reclaimed, but to prevent the deposition of debris and thus the risk of siltation (Calabi & Galeazzo, 2015; D'Alpaos, 2010b). It was in this context that the practices of care for the Lagoon took shape: set of interventions aimed at preserving an unstable landscape by modifying it, while at the same time regulating human activities within it in order to maintain the delicate balance on which Venice depended. Let's now move on to a more detailed analysis of the specific

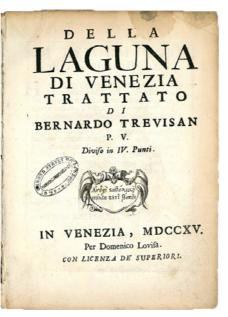




fig. 04/02 A. ZUCCHI, OPPONESI ELEMENTO AD ELEMENTO lin B. TREVISAN, DELLA LAGUNA DI VENEZIA TRATTATO DI BERNARDO TREVISAN], 1715

With their own ideas, Cornaro and Sabbadino wove a true long-distance dialogue on the Lagoon, each expressing a personal strategy to save the silty basin, crisscrossed by tidal channels that, like arteries or veins, meandered and branched through submerged lands, sometimes emerging just above the water's surface. suitable for cultivation. salt production and human settlement.

Paolo Morachiello, Acqua e Cibo a Venezia

## The hydraulic works

Although the first tentative human interventions in the Lagoon took place before the year 1000 (D'Alpaos, 2010a), one of the most tangible manifestations of the Republic of Venice's care for the Lagoon were the monumental hydraulic works carried out between the 14th and 18th centuries. These interventions aimed to counteract the natural processes that threatened the Lagoon's existence, mainly siltation from the rivers and erosion from the sea, by reshaping its morphology without losing its amphibious character (D'Alpaos, 2010b, 2010a). This was the Serenissima's paradoxical form of care: altering nature in order to preserve a fragile balance, essential for Venice's survival.

#### The diversion of the rivers

The Serenissima, realising that the flow of the rivers into the Lagoon would, over time, lead first to its flooding and then to its silting up due to the sediments transported by the rivers themselves, identified the main causes of the problem, the Brenta, Bacchiglione, Piave and Sile rivers, and embarked on a centuries-long programme of river management:

#### Brenta and Bacchiglione

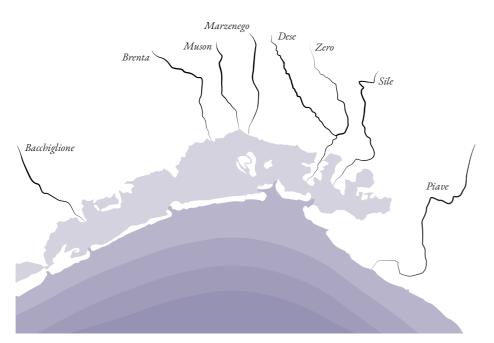
As D'Alpaos (2010a) explains, the mouth of the main branch of the river Brenta, originally located near Brondolo, was, around 1300, due to new

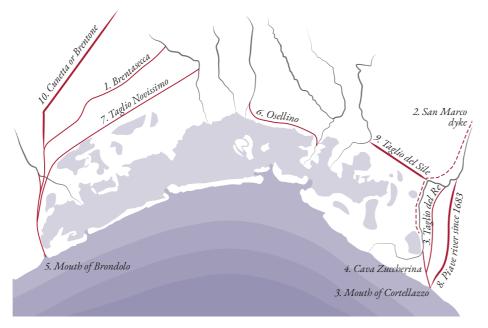
channelization made by the Paduans, located near Fusina, basically opposite Venice. This created enormous problems for the city and made the Brenta problem the first to be faced by the Serenissima. The first attempts, made at a time when the Serenissima did not vet rule the mainland, date back to the 15th century and consisted of a series of embankments on the mainland, parallel to the Lagoon itself, which directed the canal southwards, towards Malamocco. The intention was that the embankments would also serve as a clear dividing element between fresh and salt water, defending the Lagoon around Venice. However, the result was unsuccessful, causing new swamping problems, hindering the flow of timber and water supplies, and not stopping the silting up. The era of the great diversions then began in 1488, when a decree approved the start of work to move the mouth of the Brenta towards Conche, in the Chioggia basin. The intervention, carried out between 1502 and 1507, involved a cut near Dolo with the construction of a canal toward Conche, known today as the Brentasecca (1). This canal intercepted other watercourses, including the Bacchiglione, which was consequently diverted to flow together with the Brenta in Chioggia. The intervention proved positive for Venice, but created new silting there. Because of these siltings it was decided that it was essential to total-

ly exclude the mouths of the Brenta and Bacchiglione from the Lagoon. Between 1540 and 1583 it was therefore decided to take them to flow south of Chioggia, into the Brondolo Lagoon and then into the sea (5). The result was, in the centuries to come, the disappearance of the Brondolo Lagoon, but in compensation the central Lagoon of Venice was saved. During this period, other smaller rivers were also diverted away from the central Lagoon, including the Marzenego, with the construction of the Osellino Canal (6). Back to the Brenta river, in 1610 a new collector canal, the so-called Taglio Novissimo (7), was built from Mira to Brondolo. At the turn of the 18th and 19th centuries, new problems arose: the lengthening of the river's course led to increasingly frequent floods in the Padua area. In 1858, the final and definitive cut of the Brenta, known as the Cunetta or Brentone (10), was inaugurated with the aim of shortening the course of the river by cutting it directly from Stra to Brondolo.

#### Piave

Once the most urgent problems in the Southern and Central Lagoon had been solved, similar situations had to be dealt with in the Northern Lagoon. The main issue caused by the Piave River was its flooding, which resulted in the accumulation of sand near the northern inlets of the Lagoon, especially the San Nicolò (Lido) inlet, making navigation



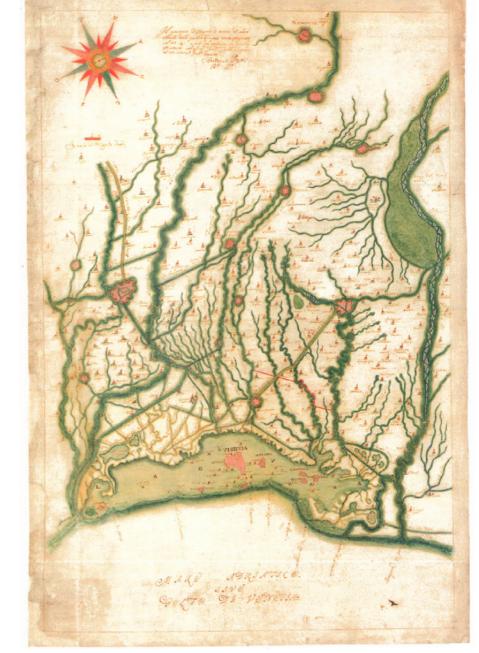


 ${\it fig.}~{\it o4/o3}~SCHEMATIC~DIAGRAM~OF~THE~DIVERSION~OF~RIVERS~FROM~THE~LAGOON~(16TH-19TH~CENT.)\\$ 

difficult. The first attempt to solve this problem was the construction of the San Marco dyke in 1534 (2), which was intended to contain the overflow of the river. However, this was not considered sufficient and a series of diversions were built to reduce the flow of the river. The first of these was the Taglio del Re (3), near Musile, which diverted the river towards its new mouth at Cortellazzo (3), followed by the Cava Zuccherina (4), from Jesolo, also towards Cortellazzo. However, these interventions were not particularly successful in protecting the port of San Nicolò. In 1683, as a result of a series of hydraulic failures, a memorable breach in the dams caused the river to redirect itself to its current course, choosing a shorter route between Musile and the new mouth (8).

#### Sile

The waters of the Sile river, which originally flowed into the Lagoon near Torcello, were redirected following the interventions on the Piave. Aimed at improving sanitary conditions in the northern Lagoon near the archipelago of Torcello, the Sile was channeled into the abandoned riverbed of the Piave, known as the Piave Vecchia, which, after skirting around the Lagoon, emptied into the sea at Cavallino. This was made possible by the construction of the Taglio del Sile in 1683 (9), which directed the river from Portegrandi to the Piave Vecchia near Caposile.



 ${\it fig.}~04/04~A.~G.~VESTRI,~SCHEMATIC~MAP~OF~THE~DRAINAGE~BASIN~CONVERGING~INTO~THE~VENICE~LAGOON,~1709\\$ 

#### Coastal works

Among the interventions carried out first by the Republic of Venice and later by nineteenth-century governments to protect the Lagoon, coastal works, such as the sistemation of the inlets, breakwaters, and the murazzi, played a crucial role. These structures were designed to

manage the sea and regulate its relationship with the Lagoon, ensuring the safety of the coastline and the continuity of maritime activities.

D'Alpaos, in Fatti e misfatti di idraulica lagunare and Evoluzione morfologica della Laguna di Venezia (2010a, 2010b), explains that a problem closely

San Nicolò - Sant'Erasmo - Treporti inlets > Lido inlet

fig. 04/05 LAGOON INLETS - MAPS FROM: A. G. VESTRI, 1692; A. DENAIX, 1809; A. DE BERNARDI, 1840; UFFICIO IDROGRAFICO DEL MAGISTRATO ALLE ACQUE VENEZIA, 1932

linked to the issue of silting was the need to keep the inlets deep enough to allow navigation, thereby countering the formation of mouth bars /barre di foce/. The one most affected by this issue, as previously mentioned, was that of San Nicolò (Lido), which was the most important for Venice due to its proximity to San Marco. The Sant'Erasmo and Treporti inlets were also affected. In the past, in fact, there were two other inlets, as the Cavallino Peninsula, a geologically recent formation that developed over the course of the 18th century, did not yet exist and therefore Sant'Erasmo and Le Vignole functioned as coastal strips,

Damaged by the storm surge during the days of the famous high tide of November 1966 and later restored, the *murazzi* still stand today as a significant testament to the many efforts made by the ancient Venetians to defend the Lagoon, not only from rivers and the sea, but also from humans threats, as Sabbadino famously wrote in one of his sonnets

Luigi D'Alpaos, Fatti e misfatti di idraulica lagunare creating three inlets: San Nicolò, between Lido and Le Vignole, Sant'Erasmo, between Le Vignole and Sant'Erasmo, and Treporti, between Sant'Erasmo and Treporti. Since there appeared to be no effective engineering solutions to this problem, the Serenissima Republic began to favour the port of Malamocco, which offered deeper waters, particularly following the diversion of the Brenta River, by having a Lagoon canal, the Canale di S. Spirito, dug in the early 1700s, leading from Malamocco to the basin of S. Marco.

It was only after the fall of the Republic that a solution was finally found to the unresolved issue of navigation through the Lagoon inlets: the napoleonic government intervened with more decisive works on the port mouths, aiming to deepen them and allow modern steamships to enter the Lagoon. They attempted to break through the inlet bars by constructing offshore jetties extending into the sea, designed to direct marine currents in such a way as to promote the natural scouring of deep and stable

channels. These works were carried out at all Lagoon inlets over the course of the following century, beginning with Malamocco between 1839 and 1872, followed by the Lido inlet between 1870 and 1892, for which it was decided to merge the three former mouths of San Nicolò, Sant'Erasmo, and Treporti into a single opening, out of concern for a further southward advance of the Cavallino shoreline, as it ultimately did occur, and finally, works were completed at the Chioggia inlet between 1910 and 1934. In addition to maintaining the inlets, the second major concern posed by the sea was the threat of coastal erosion along the barrier islands. The first experimental and temporary attempts to contain the erosion of the coastal ridges date back to the 16th and 17th centuries. These consisted of makeshift embankments and palisades formed by a double row of oak piles connected by crossbeams, with the space in between filled with small stones. These structures required constant maintenance due to the rapid degradation of the wooden

elements. When it became clear that, despite these efforts, the coastal ridges had dangerously thinned along the entire shoreline between the inlets of Chioggia and Malamocco, particularly in the area of Pellestrina, these early structures were gradually replaced by one of the most renowned and monumental engineering works of the Venetian Republic, the murazzi. Begun in 1738 and completed in 1785, the project involved the construction of stone seawalls made from Istrian stone to reinforce the coast. The first murazzo to be built was the Murazzo del Capitello near Malamocco, followed by the sections along the island of Pellestrina and then Sottomarina. Today, the murazzi are divided into three sections: the first, on the Lido, stretches from Ca' Bianca to Alberoni for about 5 kilometers; the second runs along the entire length of Pellestrina, from Santa Maria del Mare to Ca' Roman, covering 10 kilometers; the third is located on the Sottomarina shoreline and extends for approximately 1.2 kilometers from Forte San Felice.

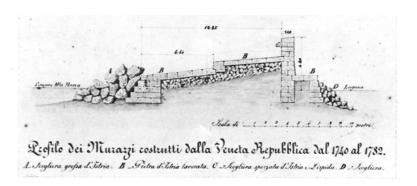
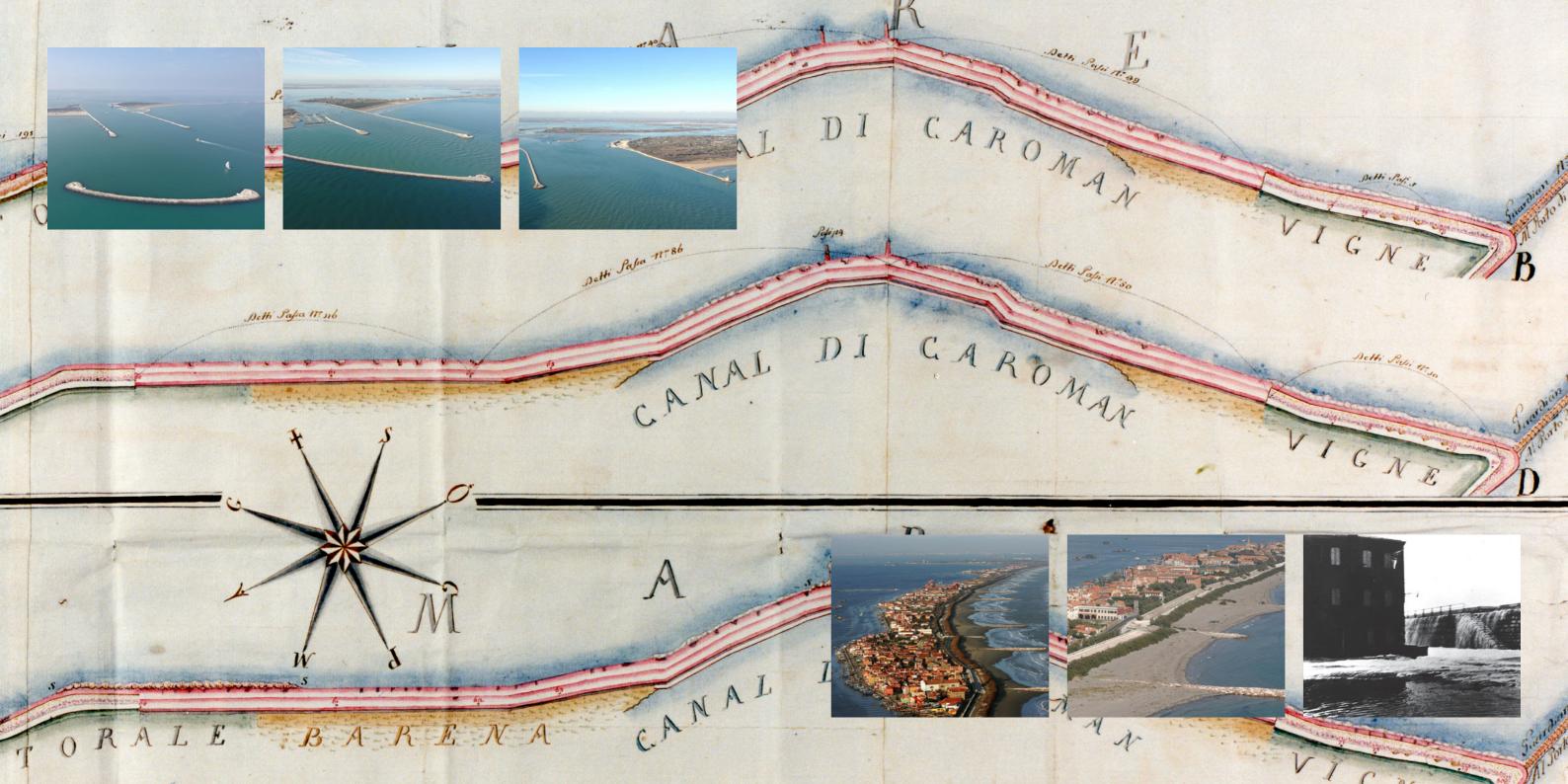






fig. 04/07 MURAZZI LOCATION



#### **Regulatory practices**

Alongside major hydraulic works, the Republic of Venice and the governments of the nineteenth century also took care of the Lagoon through an articulated and widespread system of regulations and institutions aimed at protecting the Lagoon environment. In fact, in addition to managing the landwater dynamics, it was also essential to control human uses by regulating the daily interactions of communities with the territory. In a way, the attempt to protect the Lagoon from anthropogenic threats can be seen as an early form of ecological jurisdiction. It has already been noted how the establishment of institutions such as the Savi ed Esecutori alle Acque (later known as the Magistrato alle Acque) represented a fundamental element of this mosaic. Equally significant were regulations such as the Conterminazione Lagunare, drawn in 1791. What is particularly interesting about this measure is that its primary function was to define the boundaries within which the Lagoon was to be defended and respected. The lands and waters inside this boundary were, and still are, subject to specific constraints and protection regimes, governed by rules distinct from those applied on the mainland. These rules dictated what could and could not be done within the Lagoon, in an effort to curb the otherwise hard-to-control spread of cultivation, land reclamation and embankment construction.

In a document dated September 20, 1790 (Armani et al., 1991), the Savi ed Esecutori alle Acque stated:

"Day by day, growing stretches of land are being cultivated along the edges of the estuary, which harmfully and increasingly narrows it. Within the boundaries of the Lagoon itself, in disregard of the laws, the salt marshes are being grazed, the cultivation of natural ridges is constantly expanding, the free circulation of water is obstructed by blocking canals, miles upon miles of embankments are being raised, and freshwater from nearby rivers is being introduced into the Lagoon through wooden pipes of considerable diameter. All these detestable operations, operations that reduce by about a third the surface area that ought to remain open in the Lagoon, that generally decrease the depths of the estuary, that diminish the volume and speed of water necessary to preserve the ports during the ebb tide, that harden the salt marshes and protect them from the desirable erosion by saltwater, that ultimately increase the growth of vegetation and pollute the air through the introduction of freshwater, if they were not sadly evident in fact, it would be hard to believe they could occur without the most severe punishments in that public territory and in that delicate surface, the conservation and safeguarding of which means the preservation of the Republic and the nation. Yet it is known that such abuses go unpunished, abuses that should more rightly be called crimes against the state, akin to undermining one's own city walls. And they occur both at the edges of the Lagoon and within it without consequence: at the edges due to the unclear demarcation of the estuary's limits, and within due to the degradation of governmental oversight."

In 1841, the Austrian government also enacted a Lagoon Police Regulation, IN THE PREVIOUS PAGE, FROM LEFT TO RIGHT

fig. 04/08-09-10 CHIOGGIA, MALAMOCCO & LIDO INLETS

fig. 04/11-12 MURAZZI IN PELLESTRINA AERIAL VIEWS;

fig. 04/13 MURAZZI IN PELLESTRINA DURING NIVEMBER 1966 STORM SURGE

Source: Archivio Magistrato alle Acque di Venezia - Consorzio Venezia Nuova

IN THE BACKGROUND:

fig. 04/14 PLAN VIEW OF A SECTION OF THE MURAZZI AT CA' ROMAN (PELLESTRINA)

Source: Piccolo Museo della Laguna Sud (museopellestrina.it)

dary line and, "aimed at the defence and protection of the Lagoon, summarised the rules that had inspired the magisterial action of the Republic in its centuries-long attempt to protect the Lagoon basin". The regulation remained in force until 1936, when it was replaced by Law No. 191 of January 8, 1937 (D'Alpaos, 2010a). As partially explored in Chapter 3, subsistence activities carried out in the Lagoon were also subject to regulation,

applicable within the Lagoon's boun-

especially fishing, fish farming /vallicoltura/, and hunting, though not without conflicts. In fact, the primary concern was the protection of the Lagoon's natural habitat, including the fauna itself.







Arelle e Cogolere





fig. 04/15 MAGISTRATO ALLE ACQUE LOGO

fig. 04/16 A. DE BERNARDI, CLASSIFICATION OF ENCLOSED LAGOON FISH FARMS, 1843

fig. 04/17 REGULATIONS OF THE REPUBLIC OF VENICE CONCERNING FISHING AND FISH FARMS, 1774, 1786, 1788 At the same time, however, there was institutional pressure to develop and intensify economic activities such as fishing and aquaculture (Calabi & Galeazzo, 2015).

Regarding the first aspect, the Republic increasingly intervened to protect fish reproduction (juveniles), for example by banning structures such as grisiole (fish cages), pali, solani, quarai (types of fishing gear), or any other constructions intended for fishing that could obstruct the natural flow of water (Savi ed esecutori alle acque, 1501). In particular, grisiole were considered especially dangerous because, by trapping everything, they compromised water currents and caused serious harm to navigation. The Magistrato alle Acque also monitored fish populations in the Lagoon and regulated fishing accordingly. In 1729, following a fish shortage, it issued a complete ban on fishing throughout the Lagoon using destructive tools such as cogoli, tratte, trattori and trattini, nets and devices that blocked the canals, trapped fish and obstructed water circulation, while also forcing fishermen to walk over marshes and mudflats, damaging them in the process. It also regulated fishing at sea and waste management related to fishing, forbidding "any fisherman from throwing into any canal stones or other materials that they might remove during fishing, which must instead be taken to well-distant sites, far from the waters, so that they may not

fall back into them in any way" (Compilazione Leggi, 1729).

At the same time, fishermen, particularly the *Nicolotti*, were considered to be deeply knowledgeable about the Lagoon and often accompanied magistrates on their inspections, effectively becoming a sort of "water police." The most frequent complaints concerned the use of prohibited fishing tools or failure to observe closed seasons meant to protect juvenile fish (Zago, 1982).

Hunting and fish farming were regulated instead through management contracts for the valli, which granted dual rights for both fishing and hunting. These concessions were assigned under specific seasonal, hydraulic, and landscape-related conditions. The regulations imposed limits on the use of certain tools, the quantity and type of fish that could be harvested, the fishing periods, and the construction of facilities for fish farming. Similarly, hunting was controlled by legal measures that governed both the types of terrain (marshes, reed beds, lagoons) and the times of year and species that could be hunted.

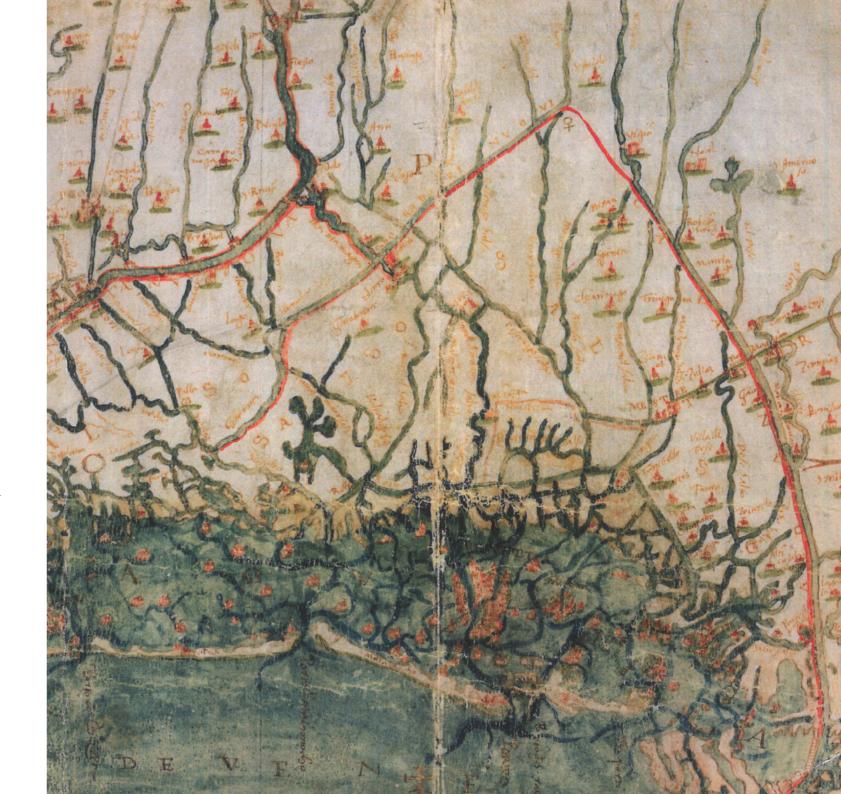
However, these regulations were not merely top-down impositions, as they reflected a shared culture of coexistence with the environment that was already widespread among the communities inhabiting the Lagoon. There existed a dynamic of dialogue and adaptation between authorities and local populations, who often not only complied

with but actively contributed to the formulation of the rules, becoming co-participants in the protection of the landscape, for instance through the management of the fishing farms /valli da pesca/. These agreements, born from the intersection of customary practices and institutional intent, demonstrate how the care of the Lagoon was the result of an articulated cooperation among different actors, in which the use of resources was intertwined with their protection

These regulatory frameworks can thus be interpreted as practices of care, political gestures aligned with a broader understanding of the Lagoon as a subject to be protected. Many of the measures were also introduced "on an experimental basis", a recurring phrase in official documents that reveals a keen awareness of the Lagoon's complexity and the impossibility of fully controlling its dynamics. This experimental vision of water governance opposes the modern idea of rigid planning, suggesting instead an idea of care as a continuous practice of adaptation, learning and revision. This approach highlights the historical distance between past institutions and communities and today's more fragmented relationship with the Lagoon environment.

#### ON THE RIGHT

fig. 04/18 C. SABBADINO, SCHEMATIC MAP OF THE LAGOON AREA BETWEEN THE PORTS OF BRONDOLO AND JESOLO 16th CENT



# **Narratives - analyse** No relationships, no need Modernity III - That moment when everything changed IV - Presence & absence | ownership, stewardship and abandonment Present V - Practices of degradation | inevitable, urban humanity

#### THAT MOMENT WHEN EVERYTHING CHANGED

For Bruno Latour (1991), modernity is an ideological operation that sharply divides nature from society, and time from memory: a linear progression that acts as a moment of rupture, creating artificial dichotomies. In the case of Venice and its Lagoon, this shift proved both transformative and devastating, forever altering crucial and powerful dynamics. As mentioned earlier, until the early 20th century, Venice had maintained a relationship of need with its environment, its Lagoon: the ecological and social dimensions were a whole. Through the practices of care explored in the previous chapter, communities and institutions formed a relational system with the Lagoon and its islands, negotiating human needs with ecological rhythms and creating what can be described as a socio-ecological balance.

However, with the advent of modernity, this balance was disrupted. The *relationships of need* progressively weakened and were replaced by a regime of disconnection that eventually led *no relationships* at all. *Practices of care* were transformed into *practices of degradation* and the dynamics of presence and

absence across the territory were redefined, turning *ownership* and *stewardship* into *abandonment*.

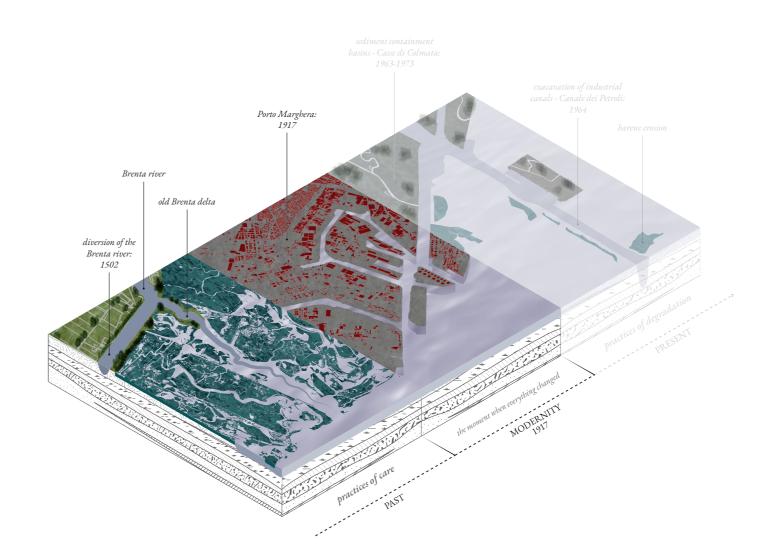
This chapter explores that transformation and its consequences, from both practical and theoretical perspectives, beginning precisely with the moment when everything changed, on a summer day in 1917.

Regarding Venice,
moreover, the choices of
economic development
completely changed the
concept of Lagoon;
no longer a stronghold of
the city, an environment
inseparably linked to
Venice and its survival,
but a "swampy and
malarial land" that needed
to be reclaimed

Stefano Guerzoni & Stefano Raccanelli, La laguna ferita: uno sguardo alla diossina e agli altri inquinanti organici persistenti (POP) a Venezia



fig. 05/01 B. LATOUR, WE HAVE NEVER BEEN MODERN COVER, 1991



#### Porto Marghera: out of the "Venice Problem", into modernity

At the dawn of the 20th century, Venice and its Lagoon experienced what could be described as their own Great Acceleration. On June 12, 1917, Count Giuseppe Volpi di Misurata founded the Società Porto Industriale di Venezia, which would be responsible for presenting the project of a new industrial port for Venice (Chinello, 2018). In the autumn of the same year, Count Volpi, entrepreneur, politician, and future Finance Minister of the Fascist government, led a group of men, including the engineer Enrico Coen Cagli, who would be in charge of designing the new industrial area, across the barene in the locality of Bottenighi to trace a new boundary in a place where, centuries earlier, the limits of the Conterminazione Lagunare had also been drawn (Musu, 2000; Restucci et al., 2017). This perimeter would become the outline of Porto Marghera, the industrial complex facing the Lagoon which, as Volpi himself stated in his speech Venezia antica e moderna (1939), was meant to bring wealth back to Venice, since Venice had "risen from the sea and from the sea awaits its wealth." The industrial zone would therefore rise on the gronda lagunare, undergoing a massive reclamation project of a portion of barene larger than the size of the main island of Venice, thus managing, once again using the words of Volpi himself (1939), to "transform the Laguna morta (dead Lagoon) into a

Laguna viva (living Lagoon) thanks to millions of kilowatt-hours" (Longhin, 2022).

The construction of the Porto Marghera industrial area, an act of force aimed at dragging Venice into industrial modernity, was framed as the solution to the so-called "Venice Problem" (Chinello, 2018), referring to the economic desolation and confinement of a city increasingly perceived as a relic of the past. In fact, this project was also understood as a symbolic act of violence, intended precisely to sever Venice from that past and from its own historical identity, an identity in which the city had once found balance with its environment.

Yet, these men no longer saw Venice as a living organism rooted in its amphibious territory, but rather as a decadent fossil of the past. This sentiment emerges forcefully, and in its most extreme form, in Filippo Tommaso Marinetti's Futurist manifesto Contro Venezia Parassita (1910). Venice is described with extreme disgust as the cloaca maxima of backwardness, a putrescent city that must be healed and scarred over, a magnificent wound of the past. The text then shifts to a fervent exaltation of what the city ought to become instead, "an industrial and military Venice capable of dominating the Adriatic Sea, the great Italian lake," a city ruled by "metallic bridges" and "factories crowned with smoke": in short, the advent

MADINETTI, DOCCIONI, CAREA, RESBOLO

Contro Veneria passatista.

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fig. 05/02 F. T. MARINETTI, U. BOCCIONI, C. CARRÀ, L. RUSSOLO, CONTRO VENEZIA PASSATISTA [MANIFESTO], 1910



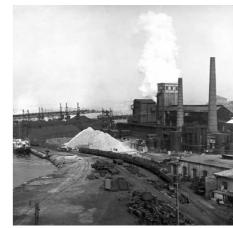
fig. 05/03 C. CHINELLO, PORTO MARGHERA 1902-1926. AT THE ORIGINS OF THE 'PROBLEM OF VENICE', 2018

ON THE RIGHT: PORTO MARGHERA THROUGH HISTORY fig. 05/04 PETROLCHEMICAL INDUSTRY fig. 05/05 STEEL WORKS IN PORTO MARGHERA Source: fontimarghera100.it fig. 05/06 FOTO FERRUZZI, BREDA SHIPYARDS, 1950 Source: lombardiabeniculturali.it fig. 05/07 METALWORKERS' STRIKE, 1982 fig. 05/08 STRIKE AGAINST DISMANTLING, 1992 Source: pric.unive.it fig. 05/09 E. SIGNORELLI, MARGHERA AZOTATI POWER PLANT, 1993 - Source: lombardiabeniculturali.it fig. 05/10 ENVIRONMENTAL CONTAINMENT OF POLLUTED AREAS - Source: mosevenezia.eu fig. 05/11 PORTO MARGHERA COMMERCIAL DOCKS Source: AdSPMAS, Linkedin





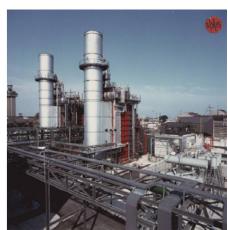


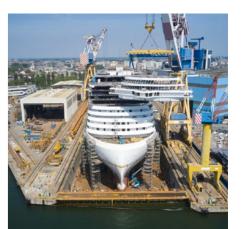












of "the reign of divine Electric Light, to liberate Venice from its venal moonlight fit for a rented room."

In this vision, modernity was not a continuation of Venice's history but its erasure. The very Lagoon that had protected and sustained the city for over a millennium was now to be exploited and reshaped, overcoming the perceived obstacle of a city trapped in a swamp through concrete, steel, and fossil energy. Modernity was being injected in the historical dimensions of the city and the Lagoon, creating an "urban paradox of contrast between what the city is and what the rest of the world wants" (Trabucco, 2022).

Construction works began in 1922 and by 1940 most of the barene identified in 1917 had disappeared, replaced by industrial giants such as Fincantieri, Italgas, Edison, Ilva, and Eni, with the outbreak of the Second World War only serving to accelerate this process. As will be explored in the following chapters, Porto Marghera also brought about it is necessary to investigate the ontosome of the most profound alterations to the Lagoon's morphology through the excavation of two massive shipping canals to allow industrial traffic to access the port from the sea: the Canale Vittorio Emanuele (1926) and the Canale dei Petroli (1968) (Bonaldi, 2002; Longhin, 2022).

At this moment, the definitive shift marking the beginning of the destruction of those socio-ecological dynamics of ba-

lance that had always existed began. In the following decades, industrialization, urbanization, increased connectivity and eventually globalization continued to displace human needs elsewhere, reducing both the immediacy and visibility of dependence on the Lagoon. A symbolic date in this transition, in this process of Venice's detachment from its Lagoon, is the year 1846: the year of the construction of the Ponte della Libertà, which physically connected Venice to the mainland for the first time in its history, forever altering the city's spatial configuration and its relationship with the "countryside" all around: no longer dependent on its Lagoon and its countryside, Venice could now tap into a continental and eventually global economy. While the bridge enabled new flows of goods, people and capital, it slowly inaugurated the freezing of other flows to and from the Lagoon.

To fully grasp the rupture caused by the construction of Porto Marghera, logical significance of what made this transformation not only possible, but also desirable: modernity itself. As already mentioned, Bruno Latour (1993) identifies the separation of nature and society into autonomous spheres as the foundational condition of modernity, a dynamic witnessed in the context of the Lagoon, shifting from relationships of need between city and Lagoon to a condition of no relationships at all. On

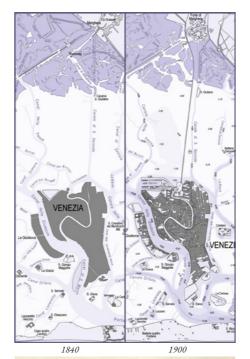






fig. 05/13 PONTE DELLA LIBERTÀ IN MAPS FROM A. DE BERNARDI, 1840 & UFFICIO DEL GENIO CIVILE DI VENEZIA, 1901 fig. 05/14 PONTE DELLA LIBERTÀ OLD POSTCARDS - Source: delcampe.net

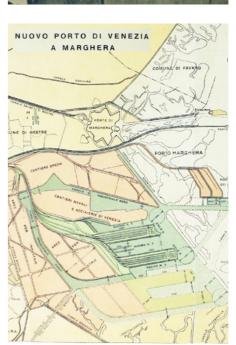




fig. 05/16 BOTTENIGO & MARGHERA, 1520







MARGHERA, 1922



fig. 05/20 MONTECATINI EDISON, VETROCOKE PLANT AERIAL VIEW, 1967 - Source: lombardiabeniculturali.it

one side, Nature becomes an object to be observed and exploited; on the other, society becomes a self-contained system oriented toward progress, moving in the frightening direction of a nature against society dichotomy that fails to recognize the countless hybrids the world is full of, with the Venice Lagoon at the forefront. To impose modernity on such a system meant breaking the relational, co-dependent logic explored in the previous chapters and replacing it with a logic of division: communities & institutions vs Lagoon & islands. In Latour's terms, Venice ceased to be a hybrid and was split apart: the city became culture, the Lagoon became nature, both disempowered by this artificial distinction.

These ruptures can also be interpreted through the transformation of temporal regimes. Thomas Fuchs (2021) describes modernity as a shift from cyclical to linear time: on one side, the cyclical time of the body, and of the water body of the Lagoon, and on the other, the linear and irreversible time of progress and productivity, embodied by the transformations of Porto Marghera. Venice and its Lagoon were built upon, immersed in, and bound by their own historical form of time, a circular one, and were violently forced into a linear narrative at great cost. As Manfredo Tafuri (22 febbraio 1993) illustrates in his powerful speech *Le forme del tempo*: Venezia e la modernità held at IUAV University in Venice, modernity breaks the circular temporality of the Lagoon-City, its "rhythm of suspended decisions," threatening the socio-ecological balance that had endured for centuries. But what did modernity concretely mean for Venice? What were its direct consequences?

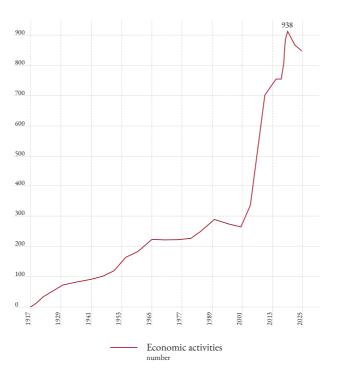




fig. 05/21 NUMBER OF ECONOMIC ACTIVITIES IN PORTO MARGHERA - Source: Osservatorio Porto Marghera

 $fig.\ o_{5}/22\ UFFICIO\ FOTOGRAFICO\ MONTECATINI,\ PORTO\ MARGHERA,\ HALOGENATED\ PETROCHEMICAL\ DIVISION-PLANT\ WITH\ ARCH\ BRIDGE\ CARRYING\ PIPELINES\ OVER\ THE SOUTH\ INDUSTRIAL\ CANAL-A\ WORKER\ IN\ VIEW,\ 1971-Source:\ lombardiabeniculturali.it$ 

#### The socio-ecological costs of modernity

According to the theory of this thesis, the consequences of this rupture initiated by modernity have been identified as the alterations in the relationships between the city and the Lagoon, and the resulting dynamics of presence and absence across the territory, as well as practices of degradation. These aspects will be explored in the next chapter, while this section is dedicated to examining what are considered to be the direct consequences, without going through the processes of territorial devaluation.

This rupture, in fact, by transforming the spatial and ecological character of Venice and its Lagoon, also profoundly altered the demographic and social dynamics of the city, severely harming its ability to sustain life. Venice has in fact become increasingly inhospitable for Venetians themselves, due to the disappearance of essential services, the rising cost of living, and the lack of spaces for leisure, work, and everyday life (Vattese, 2017). The connection with the world brought by modernity also gave people the opportunity to imagine a life outside the island, now easily and quickly connected to the mainland and the external world. As a consequence of this, since the mid-20th century the historic center and the islands have begun to empty out, undergoing a 65% collapse in the resident population, from over 215,000 registered in 1949 to just

75,000 in 2023 (source: City of Venice Statistics Office, Statistical Yearbook of the Resident Population): the exodus toward the mainland had begun. Since the 1950s, a radical transformation of the Venetian social fabric has been underway, influenced not only by the departure of residents, but above all by the arrival of a new, temporary, consuming and anonymous population, and by the threat of replacement of the former. What we are witnessing is an inversely proportional trend in the growth curves of tourists and residents, with the increasing specialization of some parts of the municipal territory, no longer dedicated to the life of citizens but to that of these new temporary inhabitants (Fabian & Mantelli, 2021). This phenomenon too, that of mass tourism, which in recent years has rapidly turned into overtourism, can be identified as a direct consequence of modernity and of the globalized and hyperconnected world that has brought it to act according to completely different paradigms. Today, Venice is trampled by around 25,000,000 tourists a year, of which only about 5,500,000 are actual tourists, meaning those who stay overnight in the municipality of Venice, while the others can be defined as day-trippers, who stay for less than a day and visit the most predictable places (Vattese, 2017). This flow has increased exponentially in the last 35 years, with a 186,5% rise from 1 980 000 arrivals in

We disembarked among the thick crowds in the squares, under the porticos, on the large bridges; so many people, even in the narrowest alleys, on the poorest banks, in the crumbling campielli. Chopin was right: too many people in Venice, which, as we were discovering, is meant for just a few [...]. **There** was no connection, no dialogue, between the city and the mass of beings that had invaded it: the wave, the tide brought by the war, filled every alley

Paolo Barbaro, Ultime Isole



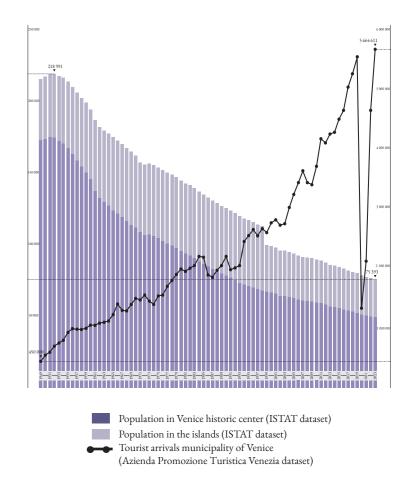
fig. 05/23 ACCOMMODATION BED-CAPACITY COUNTER II MARCO POLO BOOKSTORE - Source: ocio-venezia.it

1991 to 5 600 000 in 2023 (source: Venice Tourist Promotion Agency), and future forecasts seem to maintain this trend. Obviously, at the municipal scale, this increase has been concentrated in the historic center (Tattara, 2017).

The daily tourist-resident ratio has reached an intensity rarely matched in other global cities, with a pressure index over ten times higher than that of Rome or Florence: "after the boom in tourist rentals in 2017 and 2018, the number of beds on the tourist market has now reached the number of residents, although with a visible effect from the COVID-19 pandemic that temporarily brought residents back into the majority in 2021. The year 2023 ends with tourist beds regaining pre-pandemic levels. In Venice there are more beds for tourists (60 638) than residents (56 165)" (OCIO, 2023). The problem for Venice is once again that it offers no space to absorb these flows. It goes without saying that the problem of mass tourism in Venice is especially related to tourism density, more than to the absolute number: a relatively small number of tourists concentrated in an excessively limited space (Fabian & Mantelli, 2021).

This dynamic is not limited to numbers. It reshapes the social and productive functions of the city. As residents leave, local services increasengly disappear and the city's economy adapts to short-term visitors, pushing out traditional forms of commerce, care,

and stewardship: corridors of souvenir stands and food outlets replace artisan workshops and neighborhood shops, culture is consumed rather than experienced. This is not an accidental drift, but a social consequence of modernity itself and its separation of nature and society. Venice appears to be an emptier city, even though it has never been so full and overcrowded, but full of the wrong people.



### What remains of the countryside of Venice? Loss of functions across the Lagoon

Beyond the social consequences of modernity, such as depopulation and touristification, what was radically altered, as previously discussed, was the historical connection between the city and its Lagoon, that, over time, translated into the loss of many of the traditional functions historically attributed to the Lagoon, those explored in detail in Chapter 3.This section aims to explore how much of that socio-ecological dimension of the countryside of Venice has been lost, and what, if anything, still endures today. To do so, it returns to the two categories previously introduced: first, livelihood activities (fishing and aquaculture, agriculture, grazing and livestock rearing, hunting, and salt production); and second, public and collective functions (religion, health, and defense). Using this framework, the current condition of these functions and spaces will be assessed, drawing not only from archival and spatial research, but also from fieldwork and interviews conducted with Lagoon inhabitants and local actors. As explained in the methodology chapter, these interviews have been essential for grasping the transformations of these historical roles, and they will resurface throughout the next sections of the thesis.

#### Livelihood functions

#### Fishing and fish farming

Fishing, once a vital practice, fundamental to livelihoods and rooted in seasonality and knowledge, has undergone a deep and complex transformation. Since the 1970s, the traditional fishing sector has experienced periods of increasing difficulty, with a progressive decline in catches on an annual basis (Franzoi et al., 2021). The causes are to be found in a number of factors, many of them environmental, but it is important to first frame this shift within a broader context. As modernity extended its reach, local fish ceased to be indispensable: they could now be sourced from elsewhere, in larger quantities and at

lower cost. The demand remained, but the source, and the meaning, shifted. This possibility prevented any excessive alarm when people began to realize that local fish stocks were declining, because modernity not only brought the cause of this crisis, but also its apparent solution. In fact, the global model of extraction rapidly accelerated, particularly between the 1950s and 1970s, with a dramatic increase in fishing effort (Granzotto et al., 2001). This surge occurred in the Lagoon and especially in the northern Adriatic, where the fishing boom of the 1960s-70s, fueled by new technologies, led to the near-eradication of several species, an ecological

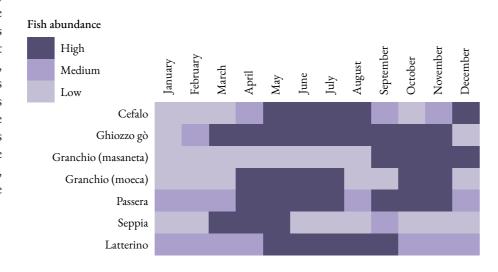
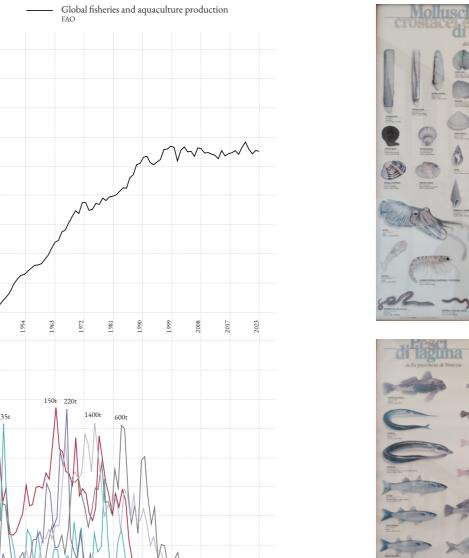


fig. 05/24 SEASONALITY OF FISHING: YEAR-ROUND ABUNDANCE OF KEY SPECIES IN THE VENICE LAGOON Source: Franzoi et al. (2021). La pesca artigianale in laguna di Venezia. Guida di buone pratiche e tutela della biodiversità



Latterino
(big-scale sand smelt)

Crostace de appendix

della provincia di Vencia

della provincia di Vencia

appendix



fig. 05/25-26 NATIVE FISH AND MOLLUSKS OF THE VENICE LAGOON - Source: Provincia di Venezia

impact that may be irreversible (Bettinello & Ongaro Sartori, 2020b). This overexploitation is undoubtedly one of the major drivers of the crisis affecting traditional fishing in the Venice Lagoon that, like other fragile transitional environments, was among the first and most emblematic ecosystems to be affected by this kind of problems. Other contributing factors include chemical pollution from Porto Marghera, eutrophication, the disappearance of shallow-water habitats such as barene and seagrass meadows, and the increasing erosion of the Lagoon bed. Many of these threats will be explored further in the following sections dedicated to practices of degradation. Moreover, changes in water temperature, sediment dynamics, and salinity have drastically altered the composition of the catch, leading to a sharp decline in species that were once abundant and had long been central to the traditional fishing culture of the Venetian Lagoon; among them: passera or passarin (european plaice), gamberetto grigio or schia (sand shrimp), ghiozzo or gò (grass goby), latterino or aquadella (big-scale sand smelt), and anguilla or bisato (eel) (Bettinello & Ongaro Sartori, 2020b; Granzotto et al., 2001).

This reality is confirmed by the words of the fishermen themselves. Gigi, a fisherman, passionate and experienced in the field, whom I had the pleasure of meeting during my fieldwork in Venice, explained that just a few years ago, there were at least 130 fishing boats operating out of Chioggia, today, only 88 remain:

"Everyone thinks there are still lots of fishermen in the Lagoon, but in Burano there are maybe 25 left. Fifteen years ago, there were 300... It's a completely different system now, and it's ending. When you're 60 or 65 and your kids don't want to do this job, you dismantle everything. No one buys the old boats anymore. The EU gives you a political price to scrap them, and that's it."

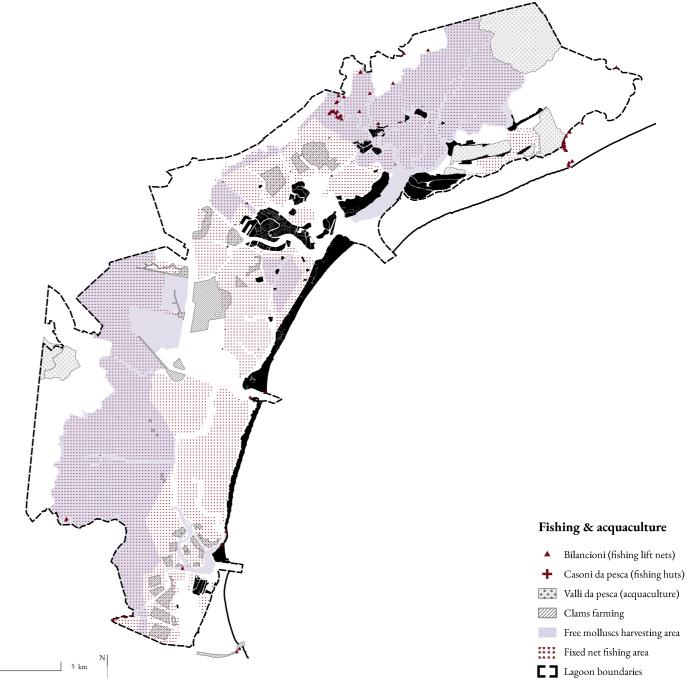
The result is not only a generational break, but a deeper structural hollowing-out of the sector:

"If you go to Chioggia, the fishermen on board are mostly older, people born into this work who don't know how to do anything else. But today, even if your father owns six boats, a 25-year-old won't go work on them. He'd rather get a job in a company. Even though the pressure to fish is still high, demand is huge, but you can't catch what isn't there anymore: you have to fish more and more, with bigger nets, more advanced equipment, and still catch less and smaller fish."

Replacing traditional fishing, clam farming has become increasingly widespread. Based on Tapes philippinarum (the Philippine clam), introduced in 1983, it has become the dominant activity in the Lagoon's fishing sector. This non-native species quickly replaced the native clam and triggered an economic boom in the 1990s and early 2000s. Today, clam farming is the most profitable activity in the Lagoon, carried out within designated concessions, often managed by cooperatives (Turolla, 2008). However, climate change is now creating difficulties here as well, with summer temperatures becoming excessively high. As Gigi reports:

"Clams have decreased, and they no longer reproduce like they used to... Now and then I see one of those small boats that go out for caparossoli, there are just four or five in Burano, two or three in Pellestrina, and the other eight or ten must be in Chioggia."

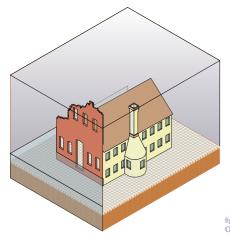
Lastly, the situation of fish farming in the valli da pesca is no different. Once highly productive, these areas now struggle to remain active and productive. Maintenance costs, including water management and embankment upkeep, are extremely high, and they are compounded by the costs of production itself (such as seeding with juveniles),

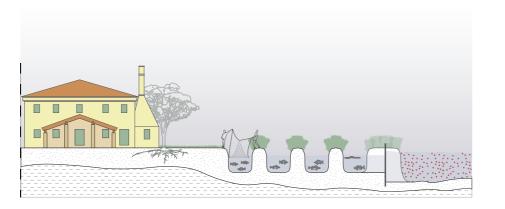


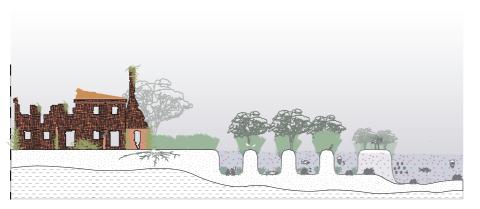
which, however, is no longer as profitable due to increasing environmental pressures. As Gigi explains:

"If you seed a valle with sea bream this spring, in March or April, you won't sell them until 2028. You might seed 250,000 and be lucky to harvest 60,000. The rest get eaten by little egrets, terns or cormorants. It used to be winter ice that killed them, with temperatures dropping to -8 or -10°C. Now, instead, it's the summer heat, 33 degrees in the valle and they end up dying anyway... So you ask yourself: should I spend 8 or 10 thousand euros on juveniles now, hoping to earn something in four years, when I probably won't? I don't think so...".

In nearly all cases, the valli have now shifted exclusively to hunting, which is far more profitable, while others have been entirely abandoned (Stocco & Pranovi, 2023).







Camillettes supridus

1. Blue Crab -

2. Japanese Wireweed -Sargassum muticum

3. Barrel Jellyfish Rhizostoma pulm

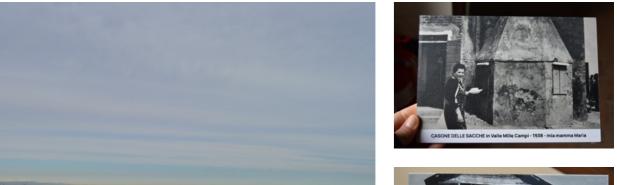
4. Sea Walnut -

 $_{
m fig.\,05/27-28}$  SECTION AND AXONOMETRIC VIEW - ABANDONMENT OF A FISH FARM AND ITS CASONE AND REPLACEMENT OF NATIVE SPECIES WITH INVASIVE ALIEN SPECIES











91

fig. 05/31-32-33-34 SCENES OF LAGOON LIFE AT THE CASON DELLE SACCHE, 1930S–40S

 $_{\rm fig.~05/29\cdot30}$  CASON DELLE SACCHE, OLD RESTORED FISHING AND HUNTING HUT AND ITS BOATHOUSE, SOUTHERN LAGOON, JANUARY 2025

#### Agriculture

Once a widespread and vital livelihood across the lagoon, agriculture today survives only in residual forms. It has almost entirely disappeared in its traditional form, small-scale, family-run plots with diversified crops such as vegetables, fruits, and vines (Beschi et al., 2023). What remains are mere fragments, concentrated in specific areas, but these no longer hold the significance that agriculture once had for this environment. Their weight and role have become completely different. As noted by agronomist Corazzin (2001), lagoon agriculture is "in a phase of transition between a condition of productive land use and a phase of production abandonment". Many privately owned plots have been left uncultivated, while those who have not completely abandoned farming often shift away from labor-intensive vegetable crops in favor of orchards and vineyards, which require less manpower. In the 20th century, a shift toward industrial intensive agriculture, with chemical fertilizers, plastic coverings, and mechanization, altered the historical agricultural structure, redefining both the materiality and temporality of farming (Beschi et al., 2023). As Silvano, a farmer and lifelong resident of Sant'Erasmo, recalls, the island was once known as "l'orto di Venezia" (the vegetable garden of Venice) and the changes here have been particularly

"In the 1960s, the island was all cultivated, vegetables everywhere, fish in the canals. You could catch eels and mullets in the ditches. The crops were completely natural, no chemicals were used. Then everything changed. The turning point was the 1966 flood: the saltwater killed the trees, the vines, the peach orchards. The artichokes and vegetables lasted another 15 years, but then people started leaving. The young went off to study, to work in factories, and no one stayed. Even our elders would say: 'Why stay? Go find a better life."

This testimony reflects a broader reality marked by a generational rupture and the collapse of the traditional agrarian world, compounded by logistical challenges, the rising cost of transportation, and the closure of the historic Rialto market. Climate change is now among the most recent threats, bringing higher temperatures, saltwater intrusion, and unstable seasonal patterns that make farming difficult even for those few who persist:

"You need to spend more and more, work more and more, and in the end, you earn less."

Today, uncultivated land far outweighs cultivated plots, and agriculture survives only in scattered pockets. The islands of Sant'Erasmo and Le Vignole remain the most active agricultural zones, with a han-

dful of farms cultivating vegetables and the iconic Carciofo Violetto di Sant'Erasmo (Violet Artichoke), a Slow Food Presidium and a rare example of resilience. The fruit trees that once filled the island gardens largely disappeared after the 1966 flood and have rarely returned since. Mazzorbo, Mazzorbetto and Torcello still host a few plots and private gardens used for subsistence. Lio Piccolo and Lio Maggiore also retain partial agricultural character, with agritourism farms representing new hybrid forms that combine hospitality and tourism with limited food production. In Murano, Lido, and Pellestrina, agriculture has almost entirely disappeared. Even in Venice, the many gardens that once dotted the city have vanished, a few remain in private form, including one inside the women's prison, and others tucked within cloisters or church courtyards. There is also a small vineyard in San Francesco della Vigna. Beyond the islands, the Cavallino peninsula and the southern fringe of the Lagoon, particularly the area around Conche and Valli near Chioggia, still support more robust forms of cultivation, including typical regional products. Viticulture is experiencing a period of revival: alongside the traditional wine production of historic farms, new initiatives have emerged, such as Venissa in Mazzorbo, that helped revive the nearly extinct Dorona grape, and the association Laguna nel Bicchiere, which contributes to reframing viticulture as both a cultural and ecological act.

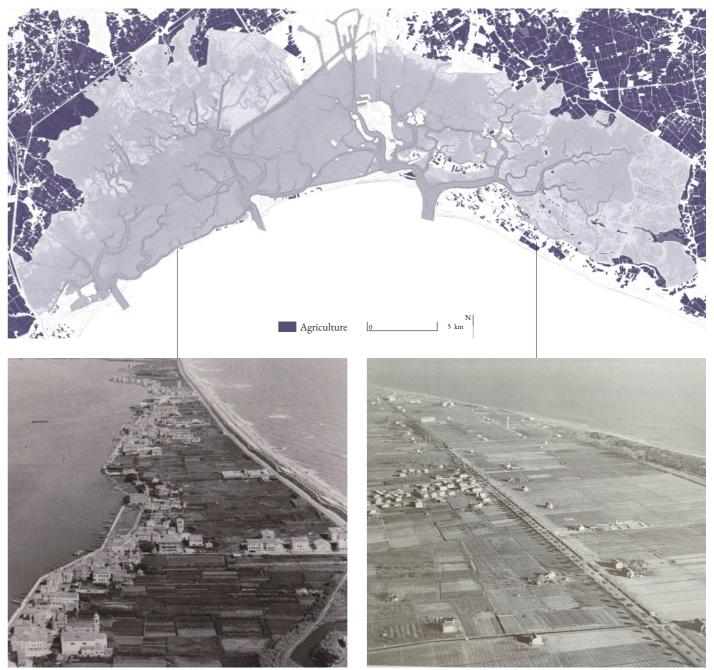


fig. 05/35 AERIAL VIEW OF PORTOSECCO AND SAN PIETRO IN VOLTA - PELLESTRINA, 1970s by Giovanni Ballarin 'Nani Guerrino' - Source: Piccolo Museo della Laguna Sud Archive Treporti, May 10, 2025

fig. 05/36 CA' BALLARIN - CAVALLINO, 1956 - Source: Facebook, Solo Foto di Cavallino Treporti, May 10, 2025

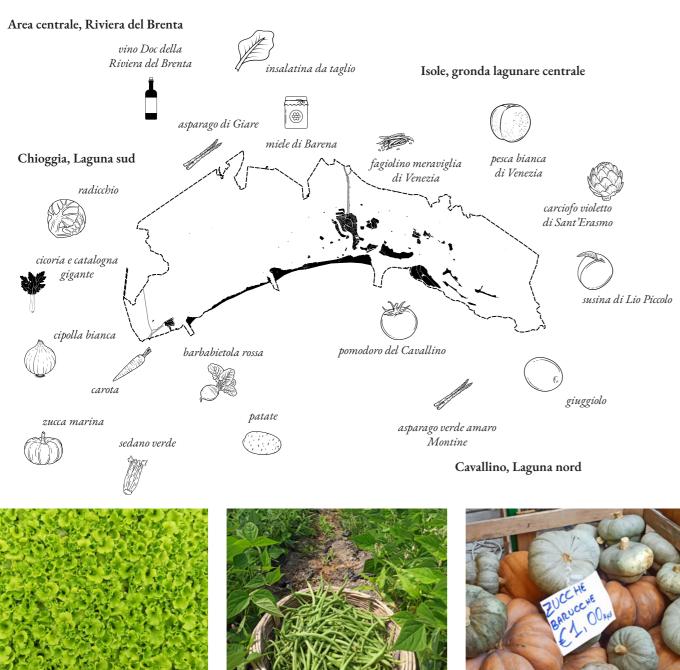
















FIG. 05/37-38-39 TYPICAL PRODUCTS OF AGRICULTURE IN THE VENICE LAGOON: BABY LEAF SALAD, GREEN BEANS & PUMPKIN FIG. 05/40-41-42-43-44-45 SCENES (

#### Grazing and livestock farming

Grazing and livestock farming, once integral components of the lagoon's rural economy, have completely disappeared from the islands. As Silvano recalls, until the mid-20th century, animals were a common presence on Sant'Erasmo, where nearly every family kept cows or pigs, grass was cultivated and sometimes disputed, and milk was collected in metal cans by cart.

"We had two cows too," Silvano remembers, "though I was too little to recall much. But I do remember the stable. Some families had four or five cows, and even a space for calves. There were also pigs, and we used everything, the manure, the fat, the meat."

These were not wealthy farms, but rather self-sufficient households, where food security was rooted in land and livestock. Today, the fields that once sustained animal husbandry are either abandoned or repurposed for small-scale horticulture.

#### Hunting

Unlike other traditional practices, hunting has not disappeared, but it has completely changed in form, function, and meaning. Once closely tied to subsistence, many Lagoon inhabitants hunted birds for nourishment,

"if you came home with five ducks and two coots, you had your protein for a week"

Gigi recalls. Today, however, hunting has become primarily a sport, a form of entertainment. There are now two types of hunting in the Lagoon: public hunting in botti, small, individual shooting hides scattered throughout the Lagoon, and private hunting in valli da caccia, a highly exclusive, controlled, and commodified version of the practice. In these private hunting estates, often owned by industrial families or wealthy elites, wildfowl are attracted with grain piles and baiting strategies:

"They put out corn and grain, and the birds, they come from the sky, thinking they've found paradise."

Guests, in fact, paying clients, spend the night in casoni, which were once traditional shelters used to remain in the Lagoon while fishing or hunting, now turned into luxurious villas, and shoot hundreds of birds in a single session:

"It becomes a game of numbers: 260 birds in a morning. Ducks, tufted ducks, pintails, wigeons, birds you don't even need, but tum tum tum, with men loading the guns for them, it becomes like a disease."

#### Salt Extraction

Among the traditional livelihood practices of the Venetian Lagoon, salt extraction is the one that disappeared the earliest and most completely.

It began to fade as early as the Middle Ages, when the Serenissima gradually relocated salt production to other parts of its commercial empire, including areas like Lefkada, in present-day Greece.





FIG. 05/46 S. MAVARRO ICONOGRAPHIC DRAWING OF THE SALINE NUOVE LOCATED AT THE DRAPANO TOWER, 1740

#### Public and collective functions

#### Religion

Today, almost all of these functions have disappeared, leaving behind building ruins and traces, but little continuity in meaning or use (Crovato & Crovato, 1978).

Regarding religion, the most visible of the three but merely in symbolic form, the monastery of San Francesco del Deserto, still inhabited by five monks, and San Lazzaro degli Armeni, home to the Mechitarist Order and a major center of Armenian culture, are two rare exceptions. Additionally, the cemetery island of San Michele continues to operate,

but aside from these cases, the vast religious network of the Lagoon has been left to decay.

#### Health

The islands that once hosted healthcare facilities are now abandoned or serve different functions. As explored in later sections, many of these places have been converted into luxury hotels or cultural venues (e.g., San Servolo). No public healthcare service remains in operation on the islands, in line with a general reduction of healthcare services in the whole island of Venice.

#### Defense

As for defense, the network of military fortifications that once protected the Lagoon has lost its strategic relevance. Physical structures still stand or are in ruins, but their roles are now completely obsolete in the 21st century.

What remains is not much, but it speaks of something else: not necessity, but intention; not need, but will. These scattered presences reflect a different kind of connection to the Lagoon, what has been defined relationships of will. It is around these relationships that the second part of this thesis revolve.



FIG. 05/47 SAN FRANCESCO DEL DESERTO MONASTERY, OCTOBER 2024

#### Presence & absence through territorial agency and land ethic

This chapter is situated in the modernity section of this thesis, one of the four temporal moments through which the socio-environmental transformations of the Lagoon are studied. As already known, each of these moments is associated with a specific type of relationship between communities and institutions and the Venice Lagoon and its islands. In the past, this relationship was defined by need, while modernity marks the beginning of a non-relationship that continues into the present.

This chapter seeks to understand how this shift has reconfigured the spatial manifestations of these relationships. Based on the research and conceptual framework that forms the backbone of this thesis, the underlying hypothesis is that each type of relationship leaves a trace on the territory (namely, a spatial consequence) by producing either practices of care or practices of degradation, which can be seen as the results of a spatial manifestation. These spatial manifestations have been categorised as presence or absence (of communities and institutions).

Two theoretical concepts have been

used to interpret these conditions. The first is territorial agency, introduced by Ostrom in her book Governing the Commons: The Evolution of Institutions for Collective Action (1990). Elinor Ostrom focuses specifically on the collective dimension of this action, which is usually configured as a spatial action, or one that has to do with what is in space. In particular, Ostrom speaks of the commons. The commons is defined as "a resource environment or domain characterised by an open-access problem" (Ostrom, 1990), and space, the territory, fully belongs to this definition. Territorial agency therefore refers to the ability of local actors, be they individuals, communities or informal networks, to take responsibility for and actively shape their own environment. The second is the concept of land ethic as formulated by Aldo Leopold in his book A Sand County Almanac and Sketches Here and There (1949). Leopold also refers to a relationship between land and people that is rooted in what should be a moral duty, environmental responsibility, that needs to be rethought. These perspectives help

us to understand that presence and absence in the Lagoon are not just neutral states, but configurations embedded in a socio-ecological dynamic capable of really influencing the appearance of the territory and all the meanings and values it embodies.

## Ownership, stewardship & abandonment

Within this framework, presence was articulated in two categories:

- Ownership, referring to private land or private forms of control over land, which often means restricting access to it, but can also imply closer and more careful management of these territories
- Stewardship, intended as a form of collective or institutional care, characterised by greater accessibility and varying degrees of active management, depending on the specific situation.

Absence, on the other hand, is defined by both the lack of ownership and stewardship, and therefore ultimately



by any kind of presidium on the territory by communities or institutions, and takes the form of abandonment, the result of institutional disengagement and the collapse of collective responsibility.

While all three arrangements, ownership, stewardship and abandonment, have of course existed in the past and continue to exist today, across different temporalities, modernity marks a critical alteration in their spatial distribution. Although it is not possible to reconstruct in detail the historical distribution of these domains, the hypothesis that emerges strongly in Chapter 3, The Countryside of Venice, is that arrangements of ownership and stewardship were probably widespread throughout the Lagoon. These took shape through a complex network of concessions and practices, including fishing, hunting, salt extraction, agriculture and grazing, which structured both institutional and communal presence. This widespread presence implied a form of continuous guardianship, exercised by both communities and institutions, which was reflected in space as a form of protection for the environment of the Lagoon and islands, as explored in the chapter on Practices of Care. Today, however, the Lagoon seems to be marked by fragmentation and neglect, by absence, by abandonment. The aim of this chapter is therefore to analyse the current configuration of these domains, to trace

their current manifestations across the territory and to examine the extent to which abandonment has become the dominant spatial condition.

The following section outlines the methodology used for this spatial mapping.

#### Methodology

The first step was to identify the layers to be included in the cartographic analysis. These were chosen through the lens of the Lagoon as the Countryside of Venice, taking into account the use of the Lagoon space by communities and institutions. In particular, to highlight the presence of the latter, layers related to spatial planning and regulation were also included in the mapping.

The elements used are divided into three categories, using the interpretive categories provided by my Graduation Studio, Transitional Territories, within the Material Ecologies exercise carried out during Q6 (November-January):

- Natural & collective goods (originally separated but unified by me for the purposes of this exercise): natural resources, environmental conditions, work of nature, public and private structures and infrastructures, soft and hard.
- Cultures of production & reproduction: characteristics of human labor (skills, knowledge), cultures of social reproduction (care).
- Institutional & regulatory infra-

structures: public institutions or private coalitions, exercising forms of geopower through regulation.

In my context, the last two categories were the most relevant because they represent the presence or absence of communities (2nd) and institutions (3rd), which is what I am more interested in. The first was considered as the base, the natural and anthropised environment of the Lagoon I am dealing with. Here are the different layers I used, divided into the three categories:

Natural & collective goods

- Islands
- Porto Marghera industrial site

Cultures of production & reproduction

- Hunting posts
- Clams harvesting
- Casoni da pesca (fishing huts)
- Valli da pesca (acquaculture)

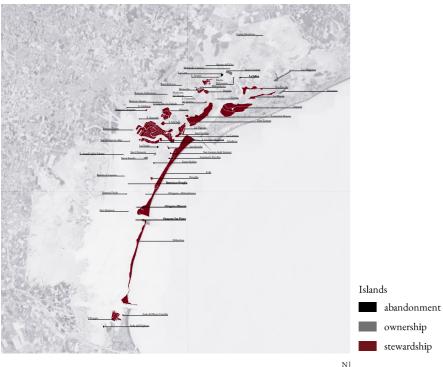
Institutional & regulatory infrastructures

- Conterminal stones (cippi di conterminazione)
- Protection areas
- Ex Magistrato alle Acque (Lagoon Water Authorities)
- Territorial plans

Each of these layers was then categorised into the three categories used to study the spatial distribution of presence & absence dynamics, namely ownership, stewardship and abandon-

ment. For each of these elements, the categorisation used different criteria, resulting in some layers having all three categories, others only two, and others, by definition, only one. These criteria are explained in more detail on the next pages, alongside the specific maps. A more complex process was used to categorise the Territorial Plans layer, which is also explained in more detail on the following pages.

#### Natural & collective goods



#### Islands

In order to classify the islands into the three categories, the dynamics of use and ownership were taken into account. The ownership category includes private islands in use (such as Sacca Sessola or Santa Cristina) or those where there is no public space or means of access without encroaching on private property (such as Mazzorbetto or Lio Maggiore). The stewardship category has been assigned to inhabited islands in use, where urban life normally takes place: all the major islands of the Venetian archipelago (Venice, Lido, Murano, Burano, etc.) fall into this category, as well as



islands that are not inhabited but are used for other purposes, whether public or in concession, in a more or less formal manner. These are, for example, the park islands (La Certosa, San Servolo), the museum islands (Lazzaretto Nuovo) or abandoned islands, formally owned by the State or the municipality, but used and protected by groups of citizens, structured or not (such as Batteria Campalto or Poveglia). Finally, the category of abandonment is reserved for islands that have actually been abandoned, either by communities or institutions.



fig. 06/01 OWNERSHIP: SANTA CRISTINA Source: veniceprivateisland.com



fig. 06/02 STEWARDSHIP: SAN SERVOLO

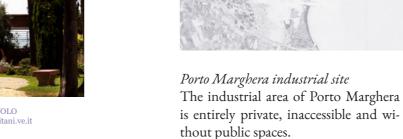


fig. 06/03 ABANDONMENT: MADONNA DEL MONTE Source: wikipedia.org

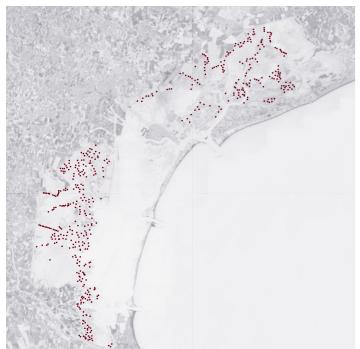
#### Natural & collective goods



fig. 06/04 OWNERSHIP: PORTO MARGHERA by Luigi Tiriticco



#### Cultures of production & reproduction



Hunting posts stewardship

#### Hunting posts

Public hunting posts (therefore not within hunting valli) are considered in their entirety as belonging to the category of stewardship. In this case, stewardship is precisely a form of presence in the territory, since hunting posts, so-called barrels or sheds, are widely distributed even in the most remote areas of the Lagoon, where other activities are rarely carried out. For this reason, the hunting community can be said to exercise a widespread stewardship role.



fig. 06/05 STEWARDSHIP: BOTTE DA CACCIA

#### Cultures of production & reproduction



Clams harvesting stewardship

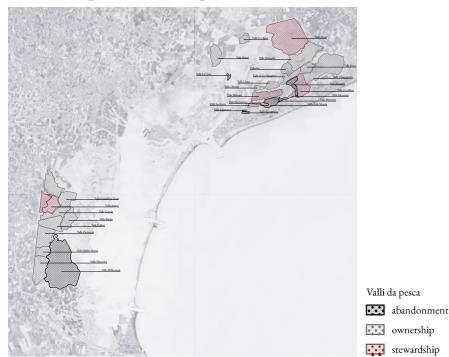
Clams harvesting

Similar to hunting posts, clam harvesting is also classified as stewardship, as fishermen guard sections of the Lagoon that would otherwise be left to their own devices.



SOUTHERN LAGOON Source: Vongola Verace Veneziana, Facebook, October 6, 2021

#### Cultures of production & reproduction



#### Valli da pesca (acquaculture)

Fishing farms (Valli da pesca) are also divided into the three categories. In order to classify them, careful research has been carried out, also thanks to the valuable discussion with Alice Stocco, researcher on the subject at Ca' Foscari University in Venice. In fact, valli da pesca today represent a delicate subject that is not easy to understand.

As explained in detail in Chapter 3, the management contracts of the valli, which are all managed as AFVs - Aziende Faunistico Venatorie (Wildlife hunting estate) (Regione del Veneto, 2023), always include the possibility of practi-

0 5 km N

sing both valliculture and hunting (Stocco et al., 2024). However, these activities are carried out in a highly private regime, often lacking transparency, and not all valli practise both practices, as hunting is nowadays much more profitable than fishing for the headland (capovalle). In the AFVs it is in fact possible to rent a hunting post for the whole season, an elitist practice that is inaccessible to most. For this reason, the ownership category is attributed to valli that exclusively practise hunting, given this strong elitist and private connotation. The stewardship category, on the

other hand, is assigned to valli that seek to promote different practices, maintaining the tradition of fish farming and often combining it with sustainable tourism to support the high maintenance costs of the valle (Stocco et al., 2023). Examples include Valle Averto in the South Lagoon, a WWF oasis and Ramsar site, and the Valli Paleazza and Dogà in the North Lagoon, which are involved in ecotourism and the sale of carbon credits respectively. The abandoned category refers to valli that have been abandoned and are no longer managed.



fig. 06/07 **OWNERSHIP:** VALLE ZAPPA by Riccardo Roiter Rigoni

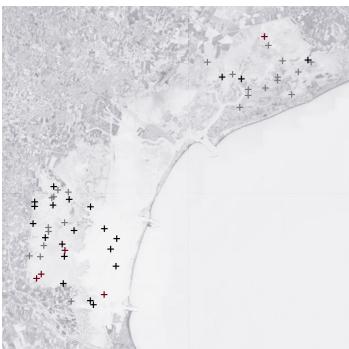


fig. 06/08 STEWARDSHIP: OASI WWF VALLE AVERTO Source: wwf.it



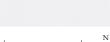
fig. 06/09 ABANDONMENT: EX VALLE LA CURA by Riccardo Roiter Rigoni

#### Cultures of production & reproduction



#### Casoni da pesca (fishing huts)

In the layer of fishing huts /casoni da pesca/, traditional Lagoon dwellings once used as a base for hunting and fishing in the valli, the dominant categories are ownership and abandonment. These oscillate between two extremes: on the one hand, casoni abandoned for decades and reduced to ruins; on the other hand, renovated casoni in private use, generally associated with hunting activities in the valli, which are difficult to access. Some exceptions are the casoni recovered by public institutions and turned into museums or used for educational purposes (such as Casone Mil-



lecampi and Cason delle Sacche, in the South Lagoon) and the Casone Montiron, in the North Lagoon, which serves as a Lagoon bivouac open to anyone who needs it.

Casoni da pesca

abandonment

ownership

stewardship



fig. 06/10 OWNERSHIP: CASONE ZAPPA by Claudio Boaretto

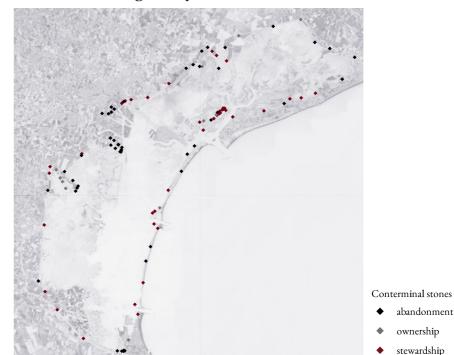


fig. 06/11 STEWARDSHIP: CASONE MONTIRON Source: squerovecio.wordpress.com



fig. 06/12 **ABANDONMENT**: CASONE PRIME POSTE by Stefano Medas

#### Institutional & regulatory framework



Conterminal stones

For the classification of this layer, a base of abandonment was assumed for all the cippi, given the long neglect to which they were subjected, to the extent that their memory was almost completely lost, until their rediscovery in 1991 thanks to the volume I Cento Cippi di Conterminazione Lagunare (Armani et al., 1991). Some of the cippi were later reclassified as ownership or stewardship. The cippi that belong to the first category are those that, due to the way the built environment around them has evolved over the years, have been included in private property and are therefo-



re inaccessible today. Instead, those that are in the stewardship category are those that have been "adopted" by citizens through the "Adotta un Cippo" initiative, promoted by the Facebook group La Compagnia dei Cippi (Compagnia Dei Cippi | Facebook, 2020). The group was founded by Carlo A. in 2020, when he decided to embark on a bicycle trip around the Lagoon to rediscover the cippi and it brings together all those who are passionate about these guardians of the Lagoon. Personally, I have adopted cippo number 6, in the locality of Fogolana, Codevigo (PD), South Lagoon.



fig. 06/13 OWNERSHIP: CIPPO Nº 14 - CHIOGGIA



fig. 06/14 STEWARDSHIP: CIPPO Nº 6 - CODEVIGO



fig. 06/15 ABANDONMENT: CIPPO N° 46 - CAVALLINO

#### Institutional & regulatory framework



5 km

Protection areas

#### Protection areas

This layer is entirely attributed to stewardship, as the mere presence of environmental protection areas in municipal, provincial or regional regulations has been interpreted as a form of protection by institutions.



fig. 06/16 STEWARDSHIP: CA'ROMAN NATURE RESERVE Source: Google Earth

#### Institutional & regulatory framework



Ex Magistrato alle Acque (Lagoon Water Authorities) abandonment

Ex Magistrato alle Acque (Lagoon Water Authorities)

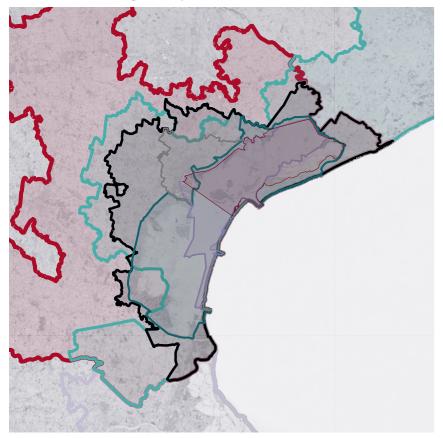
Diametrically opposed to the previous layer, this one represents an absence: something that was there, that was there for centuries, and then was no more. This is the Magistrato alle Acque, the Lagoon Water Authority, the administrative body of first the Republic of Venice and then the Italian Republic, established in 1501 (Calabi & Galeazzo, 2015) and responsible for managing the Venice Lagoon for over five centuries. That is, until 13 June 2014 ('IL CASO MOSE / Il Governo Sopprime Il Magistrato Alle Acque', 2014), when, fol-

lowing the scandal of bribery at MOSE, a work that the body was supposed to supervise, the Renzi government decreed its suppression, leaving an administrative vacuum until 2020, when the Venice Lagoon Authority was established, which, however, after five years, is still struggling to get fully up and running. The statute was only officially deposited on 7 February 2025 ('Autorità per La Laguna, Ora Si Parte Davvero: Ufficializzato Lo Statuto', 2025).



fig. 06/17 ABANDONMENT: PROTEST AGAINST THE SUPPRESSION OF THE MAGISTRATO ALLE ACQUE Source: gruppo25aprile.org

#### **Institutional & regulatory framework**



#### Territorial plans

- Wetland Contract for the Northern Lagoon stewardship
- VPRG Amendment to the General Urban Plan for the Lagoon and Minor Islands stewardship
- PAT Territorial Planning Framework of the municipality of Venice abandonment
- UNESCO management Plan stewardship
- PALAV Plan for the Lagoon and Venetian Area stewardship
- PTCP Provincial Territorial Coordination Plan abandonment
- 📘 PPRA Regional Landscape Plan for the Area 'Adriatic Coastal Arch, Venice Lagoon, and Po Delta stewardship
- Master Plan 2000 abandonment
- PTRC Regional Territorial Coordination Plan abandonment

#### Territorial plans

The layer of territorial plans was divided into the stewardship and abandonment categories on the basis of a structured assessment conducted according to four criteria: effectiveness, relevance, scale and period. These criteria were weighted with different weights (40, 30, 20 and 10 points respectively) to reflect their relevance in determining the degree of effective stewardship exercised by the plan over the Lagoon territory. The scores were assigned according to the following criteria:

- Effectiveness (0–40 points) Evaluates the level of implementation and the ratio between prescriptive and strategic measures
- Relevance (0–30 points) Evaluates how relevant the measures contained in the plan are to the Lagoon.
- Scale (0–20 points) Evaluates the appropriateness of the reference scale with respect to the specificity of the Lagoon context.
- Period (0–10 points) Evaluates the currency of the plan.

EFFECTIVENESS (40-0)				
40 points	Plan fully implemented, with excellent results and significant positive impacts			
30 points	Plan partially implemented, with positive effects in some areas			
20 points	Plan implemented to a limited extent or with mixed results			
10 points	Ineffective plan			
0 points	Plan never implemented			

	RELEVANCE (30-0)				
30 points	All measures are directly related to the objectives of the Lagoon				
15 points	A significant portion of the measures is relevant to the Lagoon				
0 points	Few or no measures are relevant to the Lagoon				

SCALE (20-0)					
20 points	Specifically Lagoon scale (overall or for portions, such as islands or sectors of the Lagoon)				
10 points	Intermediate scale, but connected to the Lagoon (e.g., watershed or coastal area).				
0 points	Scale too broad (e.g., regional scale), with limited focus on the Lagoon				

PERIOD (10-0)				
10 points	All measures are directly related to the objectives of the Lagoon			
5 points	A significant portion of the measures is relevant to the Lagoon			
0 points	Few or no measures are relevant to the Lagoon			

The overall score, obtained by summing the points assigned to each criterion, guided the assignment of the category. If a plan scored 60 points or more, it was classified as stewardship; otherwise, as abandonment.

In the tablenext page, a report of the plans, case by case.

In addition to the mapping of indivi-

dual layers, three synthesis maps were also created, to explore the three cate-

gories separately, across the different

layers. Therefore, ownership, steward-

ship, and abandonment dynamics have

These analysis can be found on the next

been mapped separately.

pages.



fig. 06/18 STEWARDSHIP: CONTRATTO DI AREA UMIDA PER LA LAGUNA NORD Source: lazzarettiveneziani.it



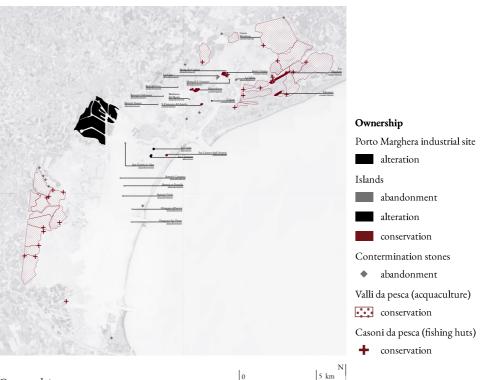


#### RELAZIONE ILLUSTRATIVA

fig. 06/19 ABANDONMENT: PIANO TERRITORIALE DI COORDINAMENTO PROVINCIALE Source: cittàmetr

Territorial plans	Contratto di Area Umida per la Laguna Nord (Wetland Area Agreement for the Northern Lagoon)	Variante al Pia- no Regolatore Generale per la Laguna e le Isole Minori (Amendment to the General Town Plan for the Lagoon and Minor Islands)	Piano di Assetto del Territorio del Comune di Venezia (Municipal Land Use Plan of Venice)	Piano di Gestione UNESCO (UNESCO Management Plan)	Piano di Area della Laguna e dell'Area Veneziana (Area Plan for the Lagoon and the Venetian Area)	Piano Territoriale di Coordinamento Provinciale (Provincial Territorial Coordination Plan)	Piano Paesaggi- stico Regionale d'Ambito "Arco Costiero Adria- tico Laguna di Venezia e Delta del Po" (Regional Landscape Plan for the "Adriatic Coastal Arch, Venice Lagoon and Po Delta" Area)	Piano Direttore 2000 (Master Plan 2000)
Effectiveness	0/40 The plan was never activated	20/40 The Lagoon Park project was not realized; 22 prescriptive me- asures against 18 strategic ones	20/40 The Lagoon Park project was not imple- mented; 12 prescriptive me- asures against 8 strategic ones	10/40 It is a strategic and non-prescriptive tool, with only indirect actions and guidelines	30/40 Provides the basis for future planning, with prescriptions and constraints	20/40 Partially super- seded by the transformation into Metropo- litan City; the prescriptions must be incor- porated into the Land Use Plans (PATs), but not all municipali- ties have done so	30/40 Valuable in terms of land- scape planning, containing directives and prescriptions	20/40 Despite its specificity, it shows implementation difficulties and has a limited prescriptive character
Relevance	30/30 All measures are directly related to the Lagoon	30/30 All measures are directly related to the Lagoon	15/30 Only part of the measures concerns the Lagoon	30/30 All measures are directly related to the Lagoon	30/30 All measures are directly related to the Lagoon	0/30 No measures directly referable to the Lagoon	15/30 Only part of the measures concerns the Lagoon	15/30 Only part of the measures concerns the Lagoon
Scale	20/20 Specifically referred to the Northern Lagoon	20/20 Referred to the entire Venetian Lagoon	10/20 Referred only to the municipal territory	20/20 Referred to the entire Venetian Lagoon	20/20 Referred to the entire Venetian Lagoon	0/20 Referred to the entire Province of Venice	10/20 Referred to the Piave–Po coastal arch	10/20 Referred to the drainage basin into the Venice Lagoon
Period	10/10 Approved in 2021	0/10 Dating back to 2004, with no updates	5/10 Approved in 2014	5/10 Developed between 2012 and 2018	0/10 Dating back to 1995, with no updates	5/10 Approved in 2010	10/10 Approved in 2015	0/10 Dating back to 2000, with no updates
Total	60	70	50	65	80	25	65	45
CATEGORY	STEWARDSHIP	STEWARDSHIP	ABANDONMENT	STEWARDSHIP	STEWARDSHIP	ABANDONMENT	STEWARDSHIP	ABANDONMENT

#### Ownership, stewardship & abandonment



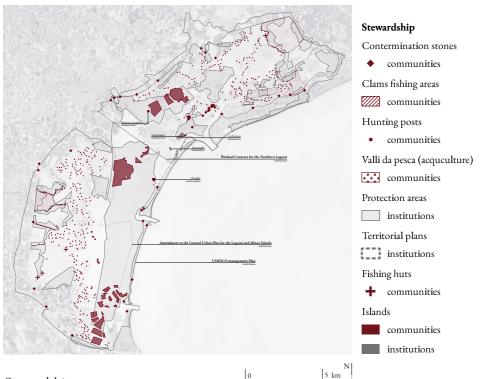
#### Ownership

For the ownership map, the category was further subdivided into three subcategories, each with different characteristics: abandonment, alteration, and conservation. Abandonment specifically refers to situations where private ownership coexists with a condition of neglect. This occurs particularly on the islands, many of which, despite having been purchased by private owners, remain in a state of abandonment. This presents a paradox in a context where ownership is usually equated with greater care, and perhaps even prevents other entities from actually taking re-

sponsibility for these places. Alteration instead refers to areas under private ownership that have been profoundly transformed in their nature precisely due to this appropriation. Prominent examples include Porto Marghera and the Southern Lagoon islands converted into luxury hotels (such as Sacca Sessola and San Clemente). Finally, conservation refers to situations in which private ownership indeed results in greater care and stewardship of the territory (Morrisette, 2001), with the aim of protecting and preserving it. The most notable example is undoubtedly that of the valli

da pesca, which are maintained in their traditional state precisely thanks to private ownership that allows the capovalle to intervene and safeguard the typical habitat of these places, what Alice Stocco, in her paper (Stocco & Pranovi, 2023), refers to as "the paradoxical need for human intervention in the conservation of natural environments in Venice Lagoon." Of course, the negative side effect of this dynamic is that these areas are nonetheless not accessible to the public.

#### Ownership, stewardship & abandonment



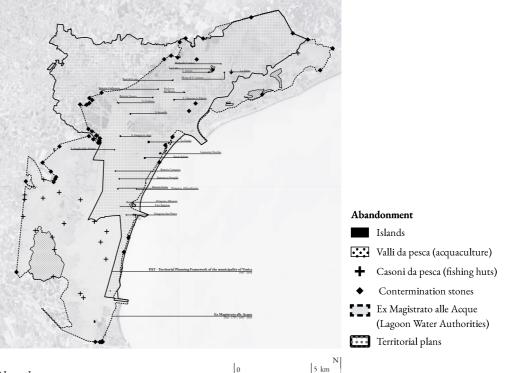
#### Stewardship

In the synthesis map dedicated to stewardship, the goal was to identify and highlight those portions of the Lagoon territory that, while not privately owned, are nevertheless actively cared for either by communities or by institutions. Stewardship is here understood as a form of ongoing territorial presence, where actors engage with the Lagoon through forms of maintenance, management, and everyday inhabitation. Chapin et al. (2010) define ecosystem stewardship as a strategy to respond to and shape social–ecological systems under conditions of uncertainty and

change to sustain the supply and opportunities for use of ecosystem services to support human well-being. So, this category manifests in two ways. The first one in community-based stewardship, where groups or associations act in direct, often voluntary or informal ways, to take care of specific places. Of course the most known example across the Lagoon is the case of Poveglia per Tutti, a grassroots movement that aims to reclaim the island of Poveglia for public and collective use (Cavallo & Visentin, 2021). The second is in institutional stewardship, where public bodies or

formal organizations are responsible for regulating and maintaining certain areas or functions. Institutional stewardship tends to operate through plans and regulations, but there are also examples in which public institutions manage islands such as in the case of San Servolo. A significant example of plan in this category is the Contratto di Area Umida per la Laguna Nord, which, despite not being fully implemented, offers a structured and site-specific framework for managing and protecting Northern Lagoon areas through cooperation between multiple actors.

#### Ownership, stewardship & abandonment



#### Abandonment

Abandonment in the Venice Lagoon does not divide into specific domains but rather emerges as a systemic condition affecting vast portions of the territory. It is characterized above all by the absence of institutional presence and responsibility, particularly after the dissolution of the Magistrato alle Acque in 2014, a historic body that had overseen the Lagoon's management for over five centuries.

Unlike ownership and stewardship, abandonment does not imply action but rather the withdrawal of action, a void where care, regulation, and every-

day use are missing. It is not merely a spatial condition but a political one, rooted in institutional disinvestment and fragmentation. Mapping abandonment helps to reveal this structural vacuum and its pervasive consequences for the Lagoon's integrity and resilience.

#### **Conclusions**

Once each layer had been mapped separately, a spatial overlay was created in a GIS environment, in which all layers were overlaid and weighted. The resulting output is a synoptic map in which each portion of land, derived from the overlay of the previous maps, expresses a relative degree of presence of the three domains (ownership, stewardship, and abandonment). To visually represent this coexistence, a trichromatic legend with three inputs has been used: each factor is associated with a colour (purple, black and white) and the three colours are balanced according to the predominance of one over the others in each polygon, resulting in a complex but readable image in which the three dimensions are never isolated, but one predominates over the others. At first sight, the colours between purple and black stand out, those generated by the balance between stewardship and abandonment. At the scale of the Lagoon, territorial plans certainly play an important role, which, as we have seen, can be divided into abandonment and stewardship: the reality here that needs to be highlighted is one marked by institutional attempts at management and protection, which, although they exist, are often ineffective or implemented at inappropriate scales. This has consequences in creating the state of widespread neglect that the thesis seeks to highlight as problematic for the

protection and health of the Lagoon dimension itself. Here we introduce the thesis work's interpretive key: where there is neglect, there is no protection, and therefore the practices of degradation that lead to ecological degradation and socio-cultural erosion are more easily established and consolidated. On the contrary, in the past, as shown in the chapter dedicated to the Practices of Care, the presidium was synonymous with defence and value: the practices that were widespread throughout the Lagoon territory guaranteed a widespread presence that, by guarding the territory, maintained its equilibrium. The current abandonment instead activates a positive feedback loop in which the absence of the presidium reduces the perceived value of the territory, accelerating processes of environmental and cultural degradation and making it increasingly difficult to trigger regenerative dynamics. As described by the Socio-Environmental Synthesis Centre (SESYNC) (Palmer, 2022), these loops can trigger highly negative social and environmental changes that become self-perpetuating over time if not interrupted by targeted interventions. Finally, this composite mapping not only allows us to grasp something of the spatial relations between the three domains, but also suggests new readings: it is interesting to note how the final map actually generates unprecedented geometries, revealing spatial co-presences and overlaps

between different domains, exercised by different actors, at different scales. These configurations make it possible to identify specific contexts of particular relevance, which will be analysed next. It is precisely these places, marked by tensions, exceptions or resistance, that constitute valuable keys to imagining possible futures for the Lagoon.

#### Valli, casoni & islands

The valli and islands of the Northern Lagoon create an interesting dynamic of interplay among the three factors. In fact, we witness a significant mixture of valli in the ownership category (in lighter colors, closer to white) where only hunting is practiced, valli in the stewardship category (in darker colors, closer to purple) where traditional valliculture is maintained alongside other functions (such as tourism) and valli in the abandonment category (in colors closer to black) which are no longer embanked or managed. Within these abandoned areas, we now see the presence of public hunting posts (as opposed to those rented within the privately managed valli). The same pattern applies to the islands and their respective casoni, where we find privately owned islands, such as Santa Cristina, Isola Falconera and Lio Maggiore, abandoned islands, such as La Salina and Motta San Lorenzo and islands in the stewardship category, such as Lio Piccolo and Le Mesole.

#### Porto Marghera

Porto Marghera represents another interesting case to explore the interplay between the three categories. Here, we can observe different boundary lines, each associated with different paradigms. Porto Marghera includes an area (in grey) that falls under both ownership and abandonment: this is because the territorial plans dedicated to the Lagoon categorized as stewardship do not apply here, as the area lies outside the conterminazione lagunare (the clear diagonal boundary visible across the middle). The second area, located within the conterminazione, is more influenced by these plans, while still overlapping with the ownership layer due to the presence of the industrial site. On the canals, however, this notion of ownership does not apply, as water is by nature non-excludable.

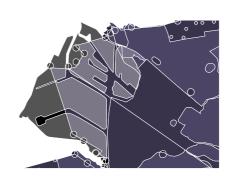
Nevertheless, the real effectiveness of this stewardship influence over the territory is certainly open to question.

#### Southern Lagoon fish farms

The Southern Lagoon presents a more uniform landscape of valli compared to the Northern Lagoon: almost all of them are dedicated exclusively to hunting, and thus the white of the ownership category becomes particularly prominent. The two exceptions are represented by Valle Averto in purple (managed by WWF, Ramsar Site) and Valle Millecampi in black, which has effectively ceased to exist.

Elsewhere, we find an open Lagoon lying somewhere between abandonment and stewardship, with hunters acting as sentinels across the Lagoon territory.







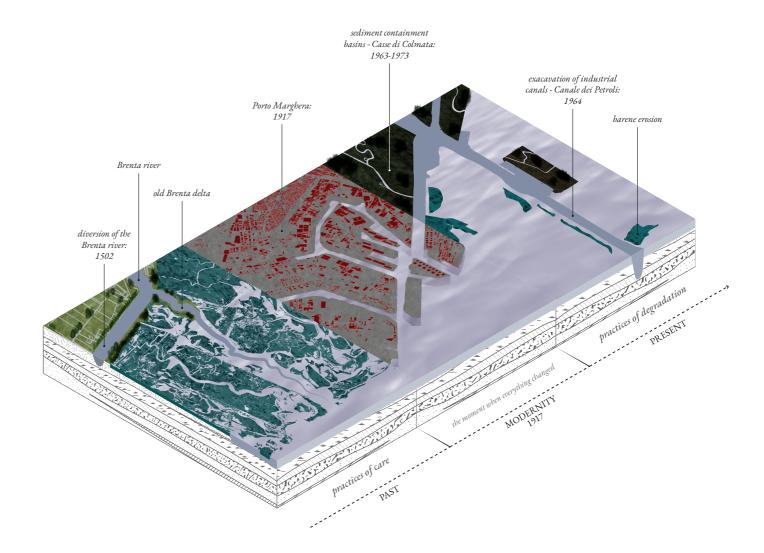
#### **PRACTICES OF DEGRADATION** | inevitable, urban humanity

Drawing on the theoretical framework of this thesis, the present, interpreted through the lens of the Anthropocene, is characterized by the emergence of what Ellis (2014) calls anthropogenic biomes. The Venice Lagoon stands among the earliest and most sophisticated examples of this concept: environments that have been profoundly transformed, not as adaptations to nature, but as its deliberate redesign to suit human needs. Yet today, the very infrastructure that once sustained life in the Lagoon, and was carefully maintained as a condition for survival, is deteriorating, undermined by the very forces that once relied on it. In fact, if the past was shaped by relationships of need between communities and Lagoon, the present is defined by no-relationships. As previously discussed, this transition, an outcome of modernity, has altered the dynamics of presence and absence in the territory, shifting from ownership and stewardship to abandonment, and from practices of care to practices of degradation. This chapter investigates these practices of degradation, which arise from a condition of abandonment

and devaluation. It is precisely this state that facilitates the establishment of such practices, triggering processes of environmental degradation and socio-cultural erosion.

In contrast to the slow, intermittent and caring presence that inhabited the Lagoon that Scarpa (2022) calls "occasional, insular humanity," what emerges in the present is an inevitable, urban humanity: a manifestation of modernity that retreats from the Lagoon while paradoxically contributing to its ongoing degradation, leaving it increasingly peripheral, emptied and exposed.

The following pages explore three key practices of degradation: pollution and hydrogeomorphological alterations, which primarily drive environmental degradation, and the abandonment and sell-off of public assets represented by the islands, which reflect the socio-cultural erosion. Together, these are not simply the absence of care, they are its systemic negation.



#### **Pollution**

The Venice Lagoon is an environment particularly vulnerable to pollution due to its nature as a semi-closed basin with limited water exchange. This hydrographic configuration, combined with the intensity and multiplicity of anthropogenic pressures, exposes the Lagoon to a substantial and persistent pollutant load that far exceeds its natural self-purification capacity through dilution and remineralization of organic and inorganic compounds (Guerzoni & Raccanelli, 2003). Pollutants enter the Lagoon primarily through the drainage system of its watershed (bacino scolante), an area of approximately 1 850 km². This territory, with its urban settlements and productive activities, discharges agricultural, civil, and industrial effluents into the Lagoon (Sfriso et al., 1992). Three main sources of pressure can be identified:

- Intensive agriculture, involving the systematic use of organic and inorganic fertilizers, pesticides, and herbicides.
- Urban wastewater discharges from the mainland and the Venetian estuary.
- Industrial activities in Porto Marghera and in the broader watershed area.

In addition to direct inputs, many pollutants reach the Lagoon through atmospheric deposition, originating from vehicle traffic, urban heating, and indu-

strial processes, particularly those related to chlorine chemistry and incomplete combustion (Cossu et al., 1987). Overall, these pollutants have led to marked deterioration in the quality of water, air and soil, disrupting the ecological balance of the Lagoon's plant, animal, and algal communities. The following sections briefly examine each of the three categories of pressure, analyzing their main environmental impacts in relation to the affected matrices: water, air and soil/sediments.

#### Civil

Pollution from civil sources is primarily the result of inadequate urban wastewater management. The Venice Lagoon receives discharges from a wide range of civil activities across the entire drainage basin. As outlined by Giupponi (1999), the main sources include:

- Domestic discharges from approximately 300 000 residents in Venice, Chioggia, the islands and the coastal areas, much of which lack proper sewer networks and wastewater treatment facilities.
- The additional pressure of overtourism on discharges in the municipalities of Venice and Cavallino-Treporti.
- The Venetian mainland, which also suffers from an inefficient sewage system.

- All municipalities within the watershed, which discharge their effluents into watercourses that flow into the Lagoon.
- Waterborne and vehicular traffic, which contributes hydrocarbons, waste oils and urban micro-pollutants through both percolation and atmospheric deposition.

The main pollutants introduced by these activities are nutrients (nitrogen and phosphorus) and organic loads, which contribute to eutrophication and disrupt the Lagoon's trophic equilibrium, along with urban micro-pollutants and hydrocarbons, which also accumulate in the sediments.

Contours

Porto Marghera industrial site

Built up area

Water bodies (Lagoons, Canals)

Below sea level areas

Bathimetry

5

27

Main rivers

Idrography

Lagoon water pollution (NOx, Hg, Zn, PCBS, OCDF, Ni, IPA)



#### **Agricultural**

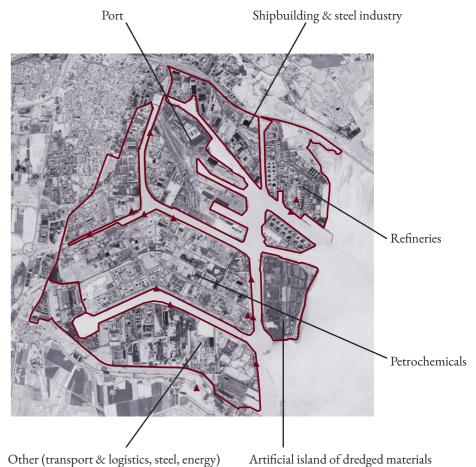
Agricultural pollution, classified as a diffuse (or non-point) source, originates from scattered and cumulative inputs throughout the drainage basin of the Venice Lagoon, an area of approximately 185 000 hectares, over two-thirds of which is cultivated with maize, soybean, sugar beet, and small grains. The release of nutrients and agrochemicals occurs through both rainwater and irrigation runoff, which reach the Lagoon via surface runoff or deep percolation. These waters travel through a dense network of artificial and natural canals that characterize the drainage basin, which is predominantly flat and partially below sea level (Giupponi et al., 1999). The main pollutants affecting the water and soil matrices include:

- Fertilizers containing nitrogen and phosphorus, which risk causing eutrophication and disrupting the Lagoon's trophic balance (Cossu et al., 1987).
- Pesticides and agrochemicals (herbicides, fungicides, insecticides), which negatively affect aquatic biological communities and accumulate in soils and Lagoon sediments, with harmful consequences for benthic organisms (Giupponi et al., 1999)



#### **Industrial**

he industrial expansion along the edge of the Lagoon, marked by the construction of Porto Marghera, has had a devastating and lasting impact on the environmental quality of the Venice Lagoon. Concerns about the site's industrial development and its threats to the natural ecosystem emerged as early as the 1960s, such was the extent of environmental degradation (Musu, 2000). The deterioration of the Lagoon's waters began soon after World War II, due to the continuous discharge of untreated industrial wastewater, with only a slight improvement observed in the 1980s following the activation of the Fusina and Campalto wastewater treatment plants (Sfriso et al., 1992). Industrial pollution affects the Lagoon on two primary fronts: directly, through wastewater discharges, and indirectly, through the contamination of groundwater, which is less visible but equally pervasive. As recently as 2006, a total of 1.85 billion cubic meters of industrial wastewater was discharged annually into the Lagoon from 142 discharge points, 17 of which were constantly active. Although most of these discharges involved rainwater or cooling water from thermoelectric power plants and refineries, they often carried harmful substances and certainly imposed thermal stress on the ecosystem (Carrer & Leardi, 2006). Groundwater pollution presents another critical threat, parti-



▲ Industrial descharges - Source: Carrer, S., & Leardi, R. (2006). Characterizing the pollution produced by an industrial area.

125

0 5 km

cularly due to the presence of metals such as iron, aluminum, arsenic, and zinc, as well as organic micropollutants like trichloroethylene, chloroform, and polycyclic aromatic hydrocarbons. This form of contamination affects soils more gradually but more profoundly, compromising their long-term environmental quality (Legambiente, 2021).

Unlike water, which can be renewed, sediments act as environmental traps, accumulating and storing contaminants while also serving as secondary sources of pollution (Molinaroli et al., 2013). Due to its high environmental risk, Porto Marghera has been designated as a Contaminated Site of National Interest (SIN). This designation covers not only the industrial area itself, but also a wide shallow-water sector of the Lagoon extending toward the city of Venice, as well as the industrial canals, due to the dispersion of contaminated sediments caused by dredging activities (Molinaroli et al., 2013; Zonta et al., 2007). According to Legambiente (2021) approximately 120 illegal toxic waste landfills have been identified in the area, amounting to an estimated 5 million cubic meters of waste. The soils and sediments within the SIN are contaminated by a wide range of pollutants, including heavy metals (arsenic, cadmium, mercury, selenium, lead, copper, zinc), light and heavy hydrocarbons, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons, aliphatic carcinogens,

chlorinated compounds, dioxins and furans. Lastly, the site has also been a major source of air pollution. In 1998, a total of 1,498 industrial chimneys were recorded in Porto Marghera, emitting around 53,000 tonnes of 120 different toxic substances into the atmosphere annually. These included nitrogen oxides, sulfur dioxide, dioxins, volatile organic compounds, chlorine and its derivatives, vinyl chloride monomer, acrylonitrile, and ammonia. It should be noted, however, that emissions have significantly decreased in recent decades due to the progressive decommissioning of most industrial activities (Legambiente, 2021).



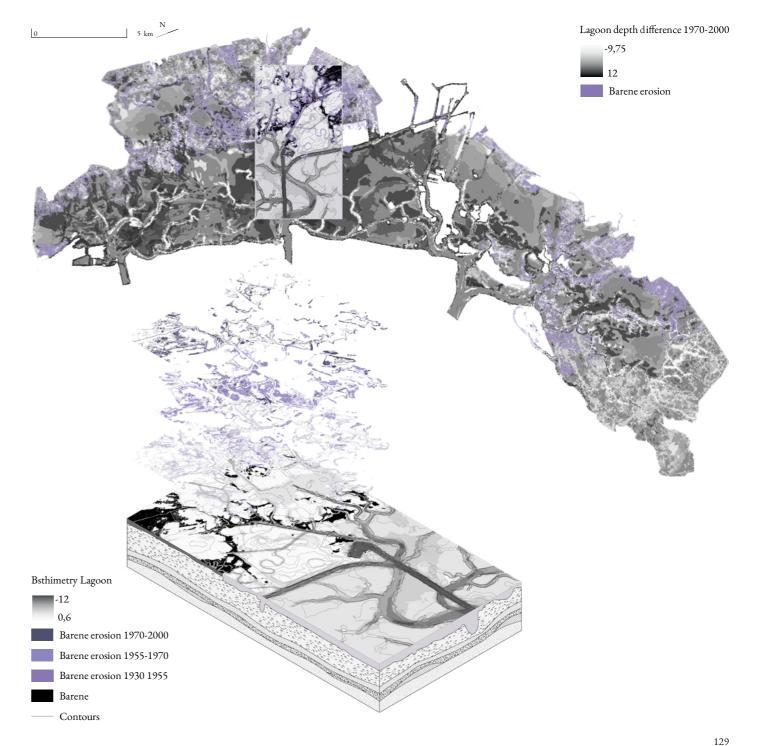


fig. 07/01 FUSINA - CONTAMINATED SOILS, JANUARY 2025

 $fig.\ o7/o2\ ANCILLOTTI\ \&\ MARTINOTTI,\ VENETIAN\ FERTILIZER\ AND\ CHEMICAL\ COMPANY-SODIUM\ SULFATE\ . PULVERIZATION\ AND\ BAGGING\ OF\ SODIUM\ SULFATE\ RECOVERED\ FROM\ PYRITE\ PROCESSING\ ,1936\ -\ Source:\ benicultural illombradia.it$ 

#### **Hydrogeomorphological alterations**

As previously discussed, the Venice Lagoon is a fragile and dynamic system, characterized by a delicate balance shaped over centuries through a combination of natural adaptations and human interventions. Particularly throughout the 20th century, a series of infrastructural, industrial and environmental projects have triggered an unprecedented process of morphological degradation, leading to significant alterations in the Lagoon's hydrogeomorphological dynamics. These processes stem from a complex interplay of anthropogenic and natural factors, each contributing in specific ways to the system's transformation. To address this complexity, this section, drawing on D'Alpaos' "Fatti e misfatti di idraulica lagunare" (2010a), first explores the underlying causes and then moves on to analyze the observable consequences, highlighting the interconnections between them. The final part focuses on the emergence of vicious cycles, emphasizing the mutual dependencies and feedback loops that exacerbate the ongoing degradation of the Lagoon system.



#### Causes

The hydrogeomorphological alterations currently affecting the Venice Lagoon result from a combination of human activities, particularly those implemented since the 20th century, which have profoundly reshaped the lagoon's hydraulic and morphological dynamics. In addition, a number of natural processes have further intensified these trends, together producing a set of tangible effects on the Lagoon system, the consequences.

#### Anthropogenic actions

The most significant factor contributing to the current imbalance in the Lagoon's hydrogeomorphological system is the excavation of industrial canals (A), deep channels constructed to ensure maritime access to the industrial area of Porto Marghera. The most impactful interventions were the excavation of the Vittorio Emanuele canal and the Malamocco-Marghera canal, commonly known as the Canale dei Petroli. The first was excavated between 1920 and 1925 with an initial depth of 7 meters, later deepened to 11 meters in the 1950s, and a width of 50 meters. It connected the industrial zone to the Giudecca canal and then directly to the sea through the Lido inlet. Far more massive in hydraulic terms was the Malamocco-Marghera canal, excavated between 1964 and 1968, which linked Porto Marghera to the Malamocco inlet. This channel measures 20 kilometers in length, with an average depth of 12 meters and a width of approximately 200 meters. These interventions have significantly increased tidal current velocities, thereby intensifying erosion and sediment export to the sea.

Another major contributor to morphological degradation is boat and ship traffic, particularly the heavy one by large cruise ships and commercial vessels, which generate artificial wave motion **(B)** that accelerates bank erosion and resuspends fine sediments along the canal margins.

The diversion of rivers outside the Lagoon **(C)**, as discussed in detail in the chapter on practices of care, has also had a substantial impact. By altering the Lagoon's natural sediment supply, these hydraulic works have contributed to a negative sediment balance, reducing the system's resilience to erosion.

A further critical factor is anthropogenic subsidence **(D)**, which, unlike natural subsidence, is induced by human activities. In particular, the over-extraction of groundwater to support industrial development in Porto Marghera during the second half of the 20th century caused the depressurization of aquifers. This led to the compaction of fine-grained soils (silts and clays), triggering widespread subsidence in Venice (Musu, 2000).

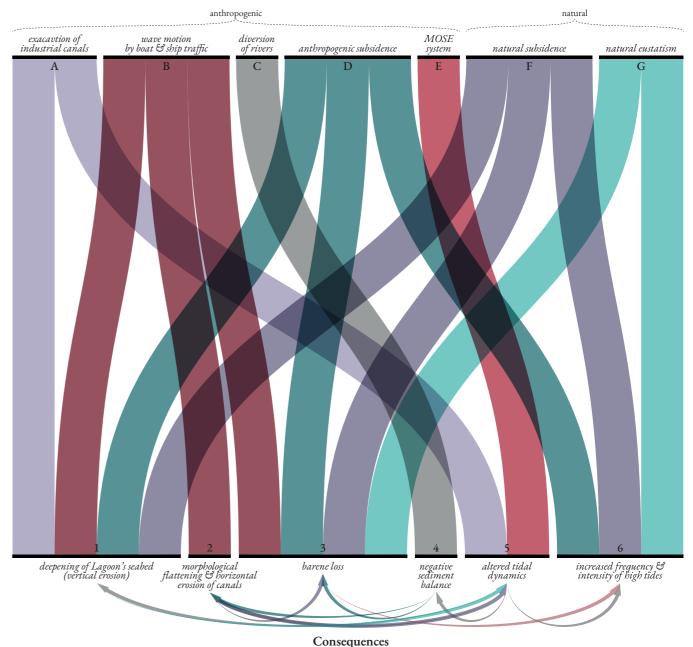
Finally, the construction of the MOSE system **(E)**, a controversial mobile bar-

rier project inaugurated in 2020 after two decades of planning, may also contribute to future morphological degradation. Although designed to protect the city of Venice from high tides, it was built with little regard for the ecological health of the Lagoon itself. Intended to safeguard Venice, it might mean death for the Lagoon instead: if the gates are closed more frequently in the future due to sea level rise, severe alterations to tidal flows, water exchange and sediment transport may occur, threatening the Lagoon's ecological integrity (Longhin, 2022).

#### Natural factors

Among the natural factors, we find natural subsidence (F), meaning the progressive sinking of the ground, and natural eustatism (G), meaning the rise in mean sea level. Natural subsidence is caused by the gradual consolidation of layers composed of fine materials such as silts and clays, while eustatism is driven by large-scale geological and climatic processes, such as changes in glacier volume and the thermal expansion of seawater. Their combined effect is referred to as submergence: over the past century, according to tide gauge data recorded at Punta della Salute, submergence in the Lagoon area has amounted to just under 25 cm.

#### Causes



#### Consequences

The effects of hydrogeomorphological alterations induced by both anthropogenic and natural pressures on the Venice Lagoon are today clearly visible in specific trends. These are transformations that affect the morphology, hydrodynamics and overall functioning of the system, pushing it toward a condition of instability and degradation.

## Deepening of Lagoon's seabed (vertical erosion) (1)

Much of the Lagoon's seabed has undergone vertical erosion, leading to increased depths. There has been a general reduction in the frequency of depths between -0.60 and -0.80 m, accompanied by an increase in the frequency of depths between -1.00 and -1.20 m, and up to -1.80 m in the Malamocco sub-basin (Chouairi, 2020; Molinaroli et al., 2009). Specifically, the seabeds of the central Lagoon in 1901 were at 50 cm, while today they exceed 1,4 m, with only about 23 cm that can be attributed to subsidence (D)(F). Other contributing factors include the excavation of industrial channels (A), wave action from large ships (B), and altered tidal dynamics (5).

## Morphological flattening and horizontal erosion of canals (2)

Morphological flattening refers to the gradual loss of differentiation in underwater morphologies. This leads to

a flattening of the bathymetric profile, which also involves the horizontal erosion of canal banks, causing them to widen. The causes can be found in the wave action of large ships **(B)**, altered tidal dynamics **(5)** and the negative sediment balance **(4)**.

#### Barene loss (3)

Throughout the 20th century, the lagoon has experienced a significant reduction in the area covered by barene (salt marshes), morphological features essential for biodiversity, energy dissipation and system stability. The area decreased from approximately 170 km² in 1901 to 104 km² in 1932 and to just 47 km² by 2003. The causes include subsidence (**D**)(**F**) and eustatism (**G**), wave action from large ships (**B**), the resulting morphological flattening and horizontal erosion of canals (2) and the negative sediment balance (4).

#### Negative sediment balance (4)

The Lagoon currently has a negative sediment balance, with erosive processes damaging the Lagoon floors and causing the loss of fine sediments (silts and clays) from the morphological structures that characterize it. Each year, it is estimated that around 400 000–500 000 m³ of sediment are lost and not replaced due to the diversion of rivers out of the Lagoon (C) and altered tidal dynamics (5).

#### Altered tidal dynamics (5)

The main altered tidal dynamic is the increased speed of tidal currents, which has led to more energy entering and leaving the Lagoon. This has affected the tidal cycle, making it faster and reducing the time water remains in the Lagoon, thus intensifying erosive processes. The primary causes include the dredging of industrial channels (A), leading to deepening (vertical erosion) (1) and flattening (horizontal erosion) (2) of the Lagoon bottom, as well as the potential future impact of the MOSE (E).

## Increased frequency and intensity of high tides (6)

The Lagoon is overall more exposed to tidal phenomena and exceptional "high water" (acqua alta) events. High water is defined as any event where the tide exceeds 110 cm above sea level, causing progressive flooding of the city as the tide rises. Historically, this phenomenon was limited to the months from November to February, but with the advent of modernity, there has been a progressive exacerbation and increasing frequency and unpredictability of high water events. As Chouairi (2020) states, "between the 1940s and the years 2010 to 2018, the frequency increased almost 14 times: from only 5 between 1940 and 1949, to 69 between 2010 and 2019 (data from the Centro Previsioni e Segnalazioni Maree - Municipality of Venice)." It is worth remembering the

two exceptional events on November 4, 1966, when the tide reached 194 cm, and on November 12, 2019, which I personally witnessed, with a record of 187 cm. Both events were devastating for the city. This phenomenon can be considered the combined effect of most of the factors listed earlier, particularly: subsidence (D)(F), natural eustatism (G), altered tidal dynamics (5) and the loss of barene (3).

#### Vicious circles

This analysis clearly shows how the hydrogeomorphological alterations of the Venice Lagoon do not occur as linear and isolated effects, but rather as deeply interdependent phenomena that reinforce one another. This creates vicious circles, where each process contributes to amplifying the others, triggering increasingly rapid and harder-to-reverse degradation dynamics. A few of these feedback loops are highlighted below to underscore the complexity of the phenomenon:

- Deepening of Lagoon's seabed (vertical erosion) (1) → Altered tidal dynamics (5) → Further deepening of Lagoon's seabed (vertical erosion) (1) and Morphological flattening and horizontal erosion of canals (2) → Altered tidal dynamics (5)

In other words, the deepening of Lagoon floors leads to faster currents, which in turn cause greater erosion of both seabeds and canal banks, processes that further accelerate current speeds.

Heavy ship traffic **(B)**  $\rightarrow$  Barene loss **(3)**  $\rightarrow$  Morphological flattening and horizontal erosion of canals **(2)**  $\rightarrow$  Barene loss **(3)** 

Here, the wave action caused by large ships leads to the loss of salt marshes, which reduces protection against wave energy. This increases horizontal erosion of submerged morphologies, which in turn causes even more loss of barene.

The trajectory of degradation that emerges from these interwoven and mutually reinforcing processes points toward a new lagoon morphology, deeper, flatter, more homogeneous, and lacking in ecologically structuring elements. The risk is that the Venice Lagoon could eventually be transformed into an open stretch of sea.

#### Abandonment and sell-off of the public asset of the islands

The islands of the Venetian Lagoon once formed an important and multifunctional archipelago, a network of religious, military, productive, and healthcare roles explored in Chapter 3, functions that were vital both to Venice and to the Lagoon as a whole.

Today, however, the progressive detachment of both communities and institutions from the Lagoon territory has led to a broader process of abandonment and disinvestment in the public assets represented by its islands: ownership has become distant, stewardship rare and abandonment has become the norm.

The disuse and sell-off of public island heritage is the clearest symptom of this shift and it's what will be explored in this section.

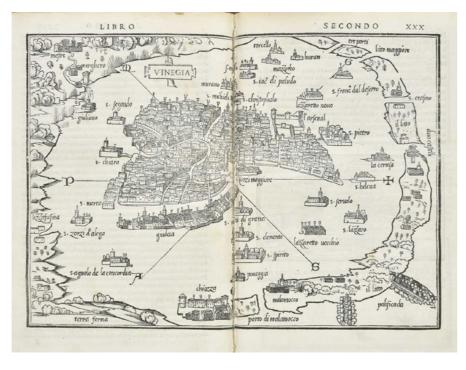
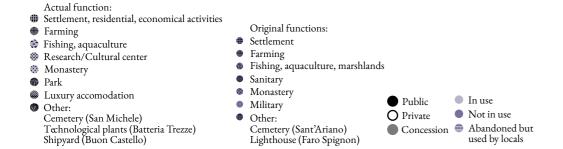
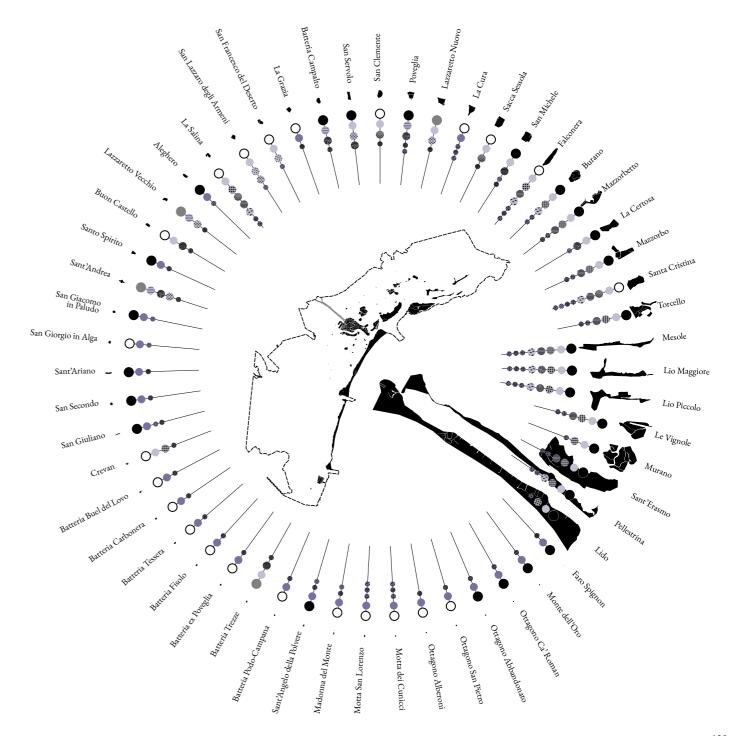


fig. 07/03 BENEDETTO BORDONE, ISOLARIO, 1528





## From multifunctional archipelago to marginal fragment

The once-living archipelago of the Venice Lagoon, home to a rich array of functions, began its trajectory toward today's isolation and abandonment in 1797, with the fall of the Republic of Venice. During the Napoleonic and Austrian occupations, the islands were progressively decommissioned and stripped of their original uses. Following the Napoleonic edict of 1810, which ordered the suppression of religious orders and congregations, most of the monastic institutions on the islands were converted for military purposes. Barracks, military hospitals, warehouses, and powder magazines were installed and remained active through both World Wars, only to be definitively decommissioned in the 1970s when the Italian State decided to dismantle the remaining military infrastructure (Cipriani, 2017). Meanwhile, several islands had also been transformed into healthcare facilities, which too were dismantled during the second half of the 20th century. This progressive dismission produced not only physical ruins, but also a symbolic rupture: islands that were once essential to the functioning of the Lagoon were increasingly perceived as burdens, remote, obsolete, and stripped of purpose.

The archipelago of the Venetian Lagoon today consists of 55 islands, dispersed between the southern and northern parts of the Lagoon, with a notable concentration in the central and northern basins. These islands can be categorized into 12 major islands, permanently inhabited (Lido, Pellestrina, Murano, Burano, Torcello, Mazzorbo, Mazzorbetto, Sant'Erasmo, Le Vignole, Lio Piccolo, Lio Maggiore, Mesole) and 43 minor islands, each with distinct characteristics. These are the islands that historically hosted monasteries, military outposts, hospitals and other public functions.

To understand the contemporary trajectories of these islands, the adjacent diagram classifies them according to four dimensions:

- Ownership (public, private, or under concession).
- Current use (in use, not in use, or abandoned but informally used by locals).
- Original function (settlement, farming, fishing-aquaculture-marshlands, sanitary, monastery, military, cemetery, lighthouse).
- Current function (settlement-residential-economic activities, farming, fishing-aquaculture, research-cultural center, monastery, park, luxury accommodation, cemetery, technological plants, shipyard).

As reference figures, out of the 55 islands 25 are currently not in use and 4 are formally abandoned but still informally used by citizens or associations in

various ways (Poveglia, Batteria Campalto, Lazzaretto Vecchio, and Sant'Andrea). Still out of the 55, 22 islands are privately owned, often, paradoxically, coinciding with the most degraded or abandoned cases, as highlighted in the previous chapter, while 4 islands are under concession or involved in some form of public-private partnership.

Focusing on the 43 minor islands, this typological analysis reveals a fragmented landscape in which the absence of a coherent and coordinated policy has led to diverging outcomes: a few islands have been successfully reactivated through civic stewardship or public-private partnerships, others have been sold or granted to private actors for exclusive use, and many remain abandoned. The following section presents a series of representative cases, grouped according to their dynamics.

#### Abandonment and degradation

This group includes the majority of the minor islands, 25 in total. These islands are in a complete state of abandonment: mostly publicly owned, though there are also cases of private owners who have acquired them and left them unused. They lack maintenance, security and any vision for reuse, despite their significant architectural and historical value. A report by Giorgio and Maurizio Crovato (1978) listed numerous islands at risk of collapse or irreversible degradation: Madonna del Mon-

te, once a convent and then a military powder keg; Sant'Ariano, formerly an ossuary; La Cura, whose 18th-century farmhouse has collapsed; San Secondo, where the Austro-Hungarian fort is crumbling; and Santo Spirito, whose buildings are vanishing into ruin. Their current condition reflects a structural disconnection between institutions and

the Lagoon territory, a broader crisis of

stewardship with neglect becoming a

#### Privatization and exclusive access

mode of governance.

A parallel trend in the recent history of the Lagoon islands is their transfer to private ownership or long-term leases, often with the intent to convert them into exclusive hospitality destinations. This is the case for two southern islands, Sacca Sessola and San Clemente, now entirely inaccessible unless one is a guest of their respective five-star hotels. Similarly, Santo Spirito and La Grazia have been privatized for similar purposes: the former for high-end tourist apartments, the latter for another luxury accommodation facility. However, in both cases, redevelopment has stalled and the islands remain in a state of abandonment (Cavallo & Visentin, 2021).

Stewardship and active public-private reuse

Unfortunately, this group includes only a few examples (La Certosa, San Michele, Lazzaretto Nuovo, San Servolo, San

#### Abandonment and degradation



#### Privatization and exclusive access



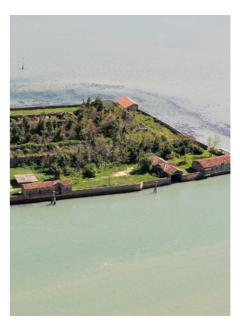






fig. 07/06-07 SAN CLEMENTE AND SACCA SESSOLA by Riccardo Roiter Rigoni

#### Stewardship and active public-private reuse





fig. 07/08-09-10-11 SAN SERVOLO AND LAZZARETTO NUOVO by Riccardo Roiter Rigoni

#### Partial concessions and contested reuse









fig. 07/12-13-14-15 POVEGLIA AND CAMPALTO: DESIRE: (Sources: povegliapertutti.org & restovenezia.it) AND REALITY by Riccardo Roiter Rigoni

Francesco del Deserto, San Lazzaro degli Armeni and Batteria Trezze), yet they represent valuable alternatives to abandonment and privatization (Cavallo & Visentin, 2021). Among them, San Servolo, once a major psychiatric hospital, is now owned by the Province of Venice and has been transformed into a congress and higher education center, a university campus and hospitality venue. It also preserves the memory of its institutional past through a permanent exhibition and historical archive. Lazzaretto Nuovo, granted in concession by the State Property Agency to the nonprofit associations Ekos Club and Archeoclub Venezia, has been revitalized through decades of grassroots efforts and now hosts a museum and a heritage and nature trail. Lastly, La Certosa, thanks to the work of the nautical society Vento and a public-private partnership, has over the past decade been redeveloped into a public park equipped to welcome recreational boats. It now houses a traditional Venetian boatyard, boat maintenance facilities, training and water sports promotion activities, a nautical school, and a hospitality structure with a bar and restaurant, ensuring public accessibility to its large green spaces.

Partial concessions and contested reuse Some islands in the Venetian Lagoon occupy an ambiguous position between abandonment and potential regeneration. These are places where public ownership persists or where concessions have already been granted, but reactivation efforts have encountered obstacles, interruptions, or tensions between institutions, private actors and civic groups. The result is often a partial or contested reuse, where the island remains suspended between potential and neglect. Four examples illustrate this situation: Poveglia, Batteria Campalto, Lazzaretto Vecchio, and Sant'Andrea, with Poveglia being the most significant and evocative case. In March 2014, when the State Property Agency included the island in a public auction with a 99-year lease, effectively a sell-off, Poveglia per Tutti, a civic group formed in response, mobilized to prevent the island from meeting the same fate as others turned into luxury hotels in the central Lagoon. The group raised €400 000 to place a counter-offer and aimed to make the island publicly accessible. While they succeeded in blocking the sale, the island remains in limbo to this day (Cavallo & Visentin, 2021).

In light of these dynamics, the most alarming trends are abandonment and the progressive sell-off of public assets, which increasingly appears to be the only alternative to abandonment itself due to the chronic institutional inability to maintain or reactivate these spaces. Cavallo and Visentin (2021) describe this phenomenon as a form of "island grabbing", not driven by extractive in-

dustry but rather by the appropriation of public heritage. What emerges is not merely a shift in function but a paradigm change: the Lagoon islands are no longer perceived as part of a living public ecosystem, embedded in shared memory and collective responsibility, but rather as marginal lands to be consumed. In this context, abandonment begins to appear not only as a consequence of public failure but as the materialization of a deeper disconnection, a loss of meaning that contributes to the socio-cultural erosion outlined in the research framework.

## Narratives - process

Relationships of will

Present
VI - The Venetian my interdisciplinary effort

A while before future
VII - Relationships of will, and action

AND DESCRIPTION OF REAL PROPERTY.

#### THE VENETIAN MY INTERDISCIPLINARY EFFORT

#### Relationships of will

chapters have explored the shift from the relationships of need that once defined the Lagoon's use, to the no relationships that mark the present. This widespread detachment, for many, the absence of any relationship, is a defining trait of modern and contemporary transformations: no need, no presence, no care. Yet, this is not the whole story. Among the many who remain indifferent, a few continue to engage with the Lagoon in meaningful ways, through resistance, organization and action. Their connection is not driven by institutional obligations or economic necessity, but rather by their will, by a sense of responsibility, cultural belonging, ecological awareness or creative practice. The expression *relationships of will* is used here to describe these intentional. voluntary forms of interaction. They are limited in number, but rich in potential.

This chapter focuses on these few. Through portraits, interviews, and participatory action, it traces the presence

In the current condition of the Vene- of these relationships in the present tian Lagoon, most people live alongside and, looking at that while before future, it, but no longer with it. The previous it asks: can these relationships of will pave the way toward a new form of protection for the Venice Lagoon? By situating these practices between the present and the a while before future, this chapter marks a transition:

> from analysis to project through process from crisis to possibility through resistance from observation to participation through organization from voices to visions through action



fig. 08/01 THE LAGOON IS OUR HOME GRAFFITI - Source: I Graffiti di Venezia, Facebook, May 29th, 2025

# Abitare in laguna è un atto di resistenza

Venezia

La città è scesa a 51mila abitanti e continua a perderne più di mille ogni anno

chi passi da Rialto, c'è un contare di associazioni e collettivi. La denuncia dell'ipersfruttatore che dal 2008 misura un Uno di questi è Ocio, l'Osserva-mento della città è trasversale dato in costante calo: il numero torio civico sulla casa e sulla alle associazioni che si attivano di abitanti di Venezia. Se nel residenza fondato nel 2019 da sul campo, tra iniziative, as-1960 erano 145 mila le persone un gruppo di cittadini per consemblee e appelli. che abitavano i sei sestieri della tinuare il lavoro dell'Osservacittà storica, nel 2008 crollava- torio Casa del comune, chiuso pressoché vuota durante i peno a 60mila. Nel 2021 sono sce-nel 2014. Il collettivo raccoglie riodi di lockdown ha reso anco si sotto i 51mila abitanti. La cit- e analizza i dati per proporre ra più evidente quanto fosse tà perde oltre mille abitanti soluzioni allo spopolamento.

Parte dello spopolamento è Politiche fallimentari dovuto a ragioni demografi- Le cause della crisi, secondo ricercatrice di Weare here Veni che: il 31,5 per cento dei resi- Ocio, sono tre. Ci sono decenni ce , un'associazione dedicata denti ha più di 65 anni e i deces- di disinvestimento nell'edilizia alla conservazione e alla valosi superano sia le nascite sia gli residenziale pubblica, che in rizzazione della città. "Senza arrivi di nuovi abitanti. Ma c'è altre città assorbe oltre il 20 per piani lungimiranti per il futuro, un altro fattore importante: mi- cento della richiesta locativa. che non abbiano come obiettigliaia di veneziani ogni anno C'è il fallimento di buona parte vo principale quello di massi-

Nel 2008, secondo il Con- zionata degli ultimi vent'anni. ristico, il rischio - in gran parte sorzio per la ricerca e la forma- E poi c'è l'immensa conversio- già realtà - è di ritornare alla sizione tra il comune e la provin- ne a uso turistico degli alloggi tuazione precedente alla pancia di Venezia, il 67 per cento di residenziali sotto la pressione demia". quelli che sono andati via avrebbe voluto tornare a vivere nella Venezia insulare. L'81 per cento degli intervistati diceva di essersene andato per via di sono aumentati del un mercato immobiliare im- 93,3 per cento possibile, confermando quanto la crisi abitativa abbia un peso di piattaforme come Airbnb. mente un più alto numero di importante sul destino della Secondo il rapporto Abitare la residenti avrebbe più pesopoli-

19 novembre anche il prefetto letto a uso turistico sono au- po, "il fatto di decidere di abitadi Venezia Vittorio Zappalorto mentati del 93,3 per cento. Ne requi", nonostante i costi esorparlando al Corriere della Sera. sono comparsi 15.688 in più so-bitanti, i disagie lo spettro della "Venezia è una sede disagiata. lo tra il 2017 e il 2019". Qui in pochi rimangono, dopo "Con le piattaforme politi- laguna, "è anche un atto di resi qualche mese si rendono con- che, improvvisamente la casa, stenza: ècosì che si può contra to della situazione e scappano: oltre a essere il terreno su cui si stare la visione rassegnata, se pagano un affitto che assorbe misurava la possibilità di rima-condo cui la città ormai non è buona parte dello stipendio", nere a Venezia, è diventata uno più vivibile". ●

racconta. Questo nonostante le aspirazioni dell'attuale sin-con il settore turistico", spiega daco Luigi Brugnaro, eletto in Francesco Penzo, ricercatore d una coalizione di centrodestra, Ocio. "Questo conflitto trasfo che nel 2015 prometteva l'arri- ma il tessuto commerciale, ma vo di 30mila nuovi residenti a porta anche a depotenziare Venezia.

A immaginare una città di- lazione stabile". versa dalla Disneyland che vie-

abbandonano la città. dei progetti di edilizia conven- mizzare i profitti del settore tu-

## In cinque anni i posti letto a uso turistico

città, "negli ultimi cinque anni tico per avanzare richieste" Al problema ha accennato il nella Venezia insulare i posti dice la ricercatrice. Nel frattem

servizi e al declino di una popo

"Il fatto che Venezia fosse riempita fino a quel momento ti", afferma Eleonora Sovrani.

Tornata a vivere a Venezia dopo anni a Berlino, Sovrani crede che l'arrivo di nuovi abitanti farebbe rifiorire la città. "Le attività slegate dal turismo e la volontà di investire sulla città aumenterebbero, Sicuracrisi climatica che aleggia sulla

#### Positioning: within and towards the Lagoon

The Venetian Lagoon is a territory where disciplinary boundaries blur. It is studied by biologists, artists, engineers, ecologists, urbanists, historians, activists and fishermen alike, each offering partial yet indispensable understandings. In recent years in fact Venice has become the site of a growing constellation of interdisciplinary practices, a network of collaborations between universities, artists, associations, scientists and cultural workers. These actors contribute to what Cristina Baldacci (2023), as part of the environmental humanities program NICHE at Ca' Foscari University, around which many of these efforts have converged, calls an "archipelago of ecological care", where contemporary art, activism and research intertwine to reimagine relationships of responsibility between humans and the Lagoon. This is precisely what I have defined as relationships of will. This ecosystem of care and action does not only inform

its method. It is within this landscape of experimentation and commitment that my thesis is situated, where multiplicity is not seen as a challenge to be overcome, but rather as a fertile ground in which to position myself and from which contribute to a different approach, one that, for me, is essential. Moreover, I strongly believe that only through this multiplicity is it possible to grasp and interpret Venice's layered complexity. For this reason, when I decided to work with and within this context, I felt the responsibility to not only observe or document it, but to position myself inside it, as a young urbanist, a researcher and a citizen of my city, and to try to take part in its ongoing transformations. . I did not only have questions and concerns, but also a desire to act. I wanted to understand how I could actively contribute to the production of knowledge and of possible futures and, if possible, act towards a change.



# The Venetian my interdisciplinary effort

Fieldwork represented the embodiment of my intent, it is where my interdisciplinary effort took shape through action, intertwining with the Venetian one. The following chapters document how I positioned myself within this living, collaborative landscape through listening, observing, interacting and initiating. They unfold a process structured around three key actions, each with its own outcomes:

- researching, by mapping individuals and groups engaged in relationships of will using ethnographic methods,
- documenting, through interviews and visual records,
- interacting, through the interaction with and co-creation of a participatory process culminating in a collective reflection on the rights of the Lagoon.

This chapter introduces that fieldwork as both a research and action method, not yet by discussing its outcomes, but by presenting the approach and the choices behind it.

fig. 08/03 BALDACCI, C. (2023). AN ARCHIPELAGO OF ECOLOGICAL CARE: VENICE, ITS LAGOON AND CONTEMPORARY ART. LAGOONSCAPES, 2 Source: edizionicafoscari.unive.it

# Method – From observing to acting

The method developed for this thesis, already outlined in Chapter 2, is grounded in the idea that knowledge and experience are not separate realms, but interconnected dimensions of research. In particular, the fieldwork relates to the "experience" side (both prior and to gain) of the diagram I constructed to map out my methods. Yet, even this experiential dimension is inevitably shaped by knowledge. Both knowledge and experience are approached from a personal standpoint, positioning myself at the intersection between what I already know and have experienced, and what I aim to understand and co-produce through this research. This me-knowledge/experience matrix acknowledges the value of prior immersion in the context. Having lived, worked, and studied in Venice, I carry with me not only information, but a deep-rooted awareness of its socio-ecological struggles. This situatedness is what allows me to claim that I conducted ethnographic research, something that would have been difficult to achieve within the limited timeframe of a ten-month thesis project otherwise. At the same time, this position demands responsibility, to engage, to learn from others and to attempt to act. The fieldwork unfolded through three interconnected activities, each contributing to a different layer of understanding and action.

#### Ethnographic research

This component of the work is aimed at identifying and surveying individuals and groups who engage with the Lagoon through artistic, associative, research-based and traditional practices. Drawing from the concept of relationships of will, I developed a hypothesis of actors I intended to engage with: artists, scientists, fishers, activists, researchers, cooks and cultural workers. This framework was not meant to be exhaustive, but rather to reflect the diverse ways in which the Lagoon is inhabited and cared for, to capture the different relationships of will that these few still maintain, in contrast to the no relationships experienced by many others. The individuals and groups identified through this process, those I refer to as the few, became the focus of my ethnographic exploration. The outcome of this method is presented in the following pages: a series of ethnographic portraits of the Venetian Lagoon, a survey of these few through the lenses of art, research, associationism and traditional practices.

#### Documenting

Following the ethnographic survey of individuals and groups engaged with the Lagoon through artistic, associative, research-based or traditional practices, I conducted a series of interviews with a selection of those identified as part of the few. Aimed at listening to and recor-

ding different voices and environments, this phase included photographs, audio recordings and video documentation of the semi-structured interviews carried out with some of the subjects emerging from my "survey of the few." Not all were available or able to participate, but the conversations that did take place offer a meaningful cross-section of relationships of will with the Lagoon. In fact, these interviews serve a dual purpose in this research. On one hand, they delve into those rare yet vital relationships that stand in contrast to the widespread detachment and indifference that characterize the contemporary condition of the Lagoon (no relationships). On the other, they offer a window onto the future through what I have called wishes: the imagined, hoped-for transformations of the Lagoon as seen from the perspective of those who actively care for it today. This serves to form a narrative and conceptual bridge between the present and the design-oriented phase of this thesis, in this timeframe defined as a while before future.

#### Interdisciplinary interaction

In this research, I chose to approach interdisciplinarity not only as a necessary lens to understand the context, but also as a method in itself, a way of looking at the topic of rights of nature from a different perspective, and of operationalizing this alternative approach. The rights of nature are the framework,

explored in more detail later in this thesis, that this research has chosen to adopt as a potential new form of protection for the Venice Lagoon in the near future (a while before future), in contrast with the natural forms of protection of the past and the current absence of any effective protection. I deliberately engaged with voices outside my discipline as a conscious strategy to operate as an urbanist within this new and, at the time I began this thesis, largely unfamiliar and emerging framework, especially within the European context. Given both the novelty and the complexity of applying such a legal and ecological framework to a context like the Venetian Lagoon, I considered it essential to open up my process, both to those already working on the topic locally and to networks and actors involved in similar efforts across Europe. This approach, which initially emerged from a hope to connect with people beyond my field, where such topics are still rarely discussed, soon led me in unexpected directions. It was shaped by the contingencies of when and where certain conversations happened, evolving in ways I could not have foreseen, but for which I am now both grateful and satisfied. Over time, this form of interdisciplinary interaction came to serve two key purposes. First, to understand the current state of the rights of nature discourse and its practices in Europe, identifying its challenges, gaps, and opportunities. Second, to

root this knowledge locally, by engaging with individuals and groups already reflecting on possible legal recognitions for the Lagoon's rights. Both paths yielded valuable insights, which will be displayed in the following pages, and helped structure this work as a whole. In conclusion, this interdisciplinary interaction is positioned as a method for learning, connecting, and co-producing within a multi-actor field, acknowledging the limitations of any single disciplinary lens in addressing systemic socio-ecological issues.

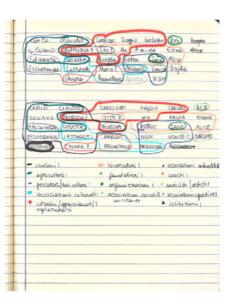
ON THE RIGHT: fig. 08/04 LUCA, DIVING FROM THE VAPORETTO DOCK -CHIESA, SANT'ERASMO, REDENTORE 2023



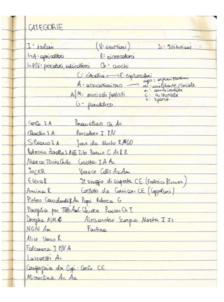
#### **Ethnographic portraits of the Venice Lagoon**

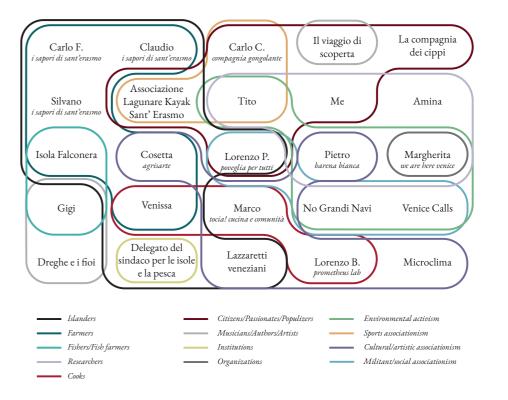
This section presents a series of ethnographic portraits, short narrative fragments that emerge from my encounters with individuals and groups who maintain a meaningful relationship with the Lagoon. As introduced in the previous section, these actors are part of the few who, despite systemic neglect, continue to engage with the Lagoon not out of need, but out of will. These portraits are not meant to be exhaustive; rather, they are partial and situated stories, collected through field visits, conversations, and shared time during my fieldwork or previous experiences across the Lagoon. Together, they form a mosaic of presences, diverse in form and motivation, contributing to keeping the Lagoon as a living, inhabited and contested space. The selection presented here is based on an initial framework I developed to map the Lagoon's relational ecology. This diagram, included below, guided my fieldwork and informed the identification of those I approached: you will find names of individuals (accompanied by the group/association) for the people I personally interviewed and only names of groups or associations for those who are part of the mapping but whom I met indirectly. Not all voices led to interviews, and those that did will be explored in more detail in the next chapter. What follows is a brief dive into the "archipelago of ecological care" that Baldacci (2023) speaks of.











#### Carlo F., Claudio and Silvano (I Sapori di Sant'Erasmo)

#### Categories: islanders, farmers

Carlo, Claudio, and Silvano, two brothers and their father, are the backbone of the farm I Sapori di Sant'Erasmo, where I worked for a season in 2023. Their family-run business is one of the few remaining on the island of Sant'Erasmo, where they cultivate vegetables and fruit, selling their produce both at a small shop on the island and through deliveries by boat twice a week to Venice. They are also active promoters of the Consorzio del Carciofo Violetto di Sant'Erasmo, which brings together agricultural producers from the islands of Sant'Erasmo, Le Vignole, Mazzorbo and Lio Piccolo to protect and celebrate this iconic Lagoon-grown artichoke, which is also a Slow Food Presidium.





fig. 08/07 CASTRAURE (VIOLET ARTICHOKE BUDS) Source: I Sapori di Sant'Erasmo, Facebook, Apr. 20, 2021



08/06 CARLO & CLAUDIO DURING BOAT DELIVERIES IN VENICE by Ulysse Gaudaré



fig. 08/08 DATTERINO TOMATO GREENHOUSES



fig. 08/09 CARLO & CLAUDIO AT WORK

#### Isola Falconera

#### Categories: islanders, farmers, fish farmers

Isola Falconera is a privately-owned island located in the northern part of the Venetian Lagoon, near Cavallino-Treporti. After years of abandonment, it is now managed by a group of young entrepreneurs who have reactivated the site through small-scale farming, regenerative land management, low-impact tourism and educational activities. The project fosters care by combining the cultivation of vegetables and herbs typical of the Lagoon, extensive aquaculture (fish farming), educational and cultural events and limited hospitality.





FARM - Source: isolafalconera.com







fig. 08/14 BEEKEEPING ACTIVITIES ON THE ISLAND Source: isolafalconera.com

#### Cosetta (AgrisArte)

Categories: islanders, farmers, cultural/artistic associationism

Cosetta, deeply connected to the land of the Lagoon islands, was born in a farm in Mesole and, for love, moved to another farm in Sant'Erasmo. She is the founder of Agrisarte, an association dedicated to connecting environment, art and traditional peasant practices, with a particular focus on those related to the female dimension. Through gardening courses, home economics, traditional cooking recipes, as well as sewing, weaving, knitting and embroidery (even using ancient yarns), the association rediscovers, enhances, preserves and shares the historical and cultural heritage of the Venetian islands territory.





fig. 08/17 TORRE MASSIMILIANA, ASSOCIATION PREMISES - Source: AgrisArte, Facebook, Dec. 6, 2024



fig. 08/16 COSETTA IN SANT'ERASMO



fig. 08/18 COSETTA WORKING ON THE MAKING OF NETTLE YARN - Source: AgrisArte, Facebook, Dec. 6, 2024

#### Gigi

Categories: fishers, musicians/authors/artists

Gigi is a former sea captain, passionate fisher and long-time connoisseur of the Venetian Lagoon. Although not a professional fisherman, he began fishing at the age of seven, driven by a personal passion that has grown over the decades into deep expertise. He is a great expert in the world of fishing, navigation and the Lagoon. Over the years, he has gathered his knowledge into several illustrated books on traditional fishing and maritime practices in the northern Adriatic, combining historical research with his own watercolor illustrations. Among his publications are «Quattro risi». Piatti e storie di vecchia cucina veneziana (Divari, 2020), Tra il mare e Rialto. Pesci e pesche venete in epoca moderna e recente (Divari, 2022) and A detta dei nostri pescatori. I prodotti della pesca, i naturalisti e i pescatori della laguna dei secoli scorsi (Divari, 2016).



. 08/19 GIGI WITH HIS BOAT IN THE CANALS OF SANT'ERASMO



fig. 08/21 «QUATTRO RISI». PIATTI E STORIE DI VECCHIA CUCINA VENEZIANA by Luigi Divari



VENETE IN EPOCA MODERNA E RECENTE by Luigi Divari



fig. 08/20 A WATERCOLOR ILLUSTRATION BY GIO



#### Associazione Lagunare Kayak Sant'Erasmo

Categories: islanders, citizens/passionates/populizers, sports associationism

Patrizia, a lifelong resident of Sant'Erasmo, has become a promoter of kayaking activities through a local sports association, the Associazione Lagunare Kayak Sant'Erasmo, offering the island's children the chance to explore the Lagoon during the summer. The activities take place with two departure points: at Torre Massimiliana and Punta Vela. As a passionate Lagoon enthusiast and explorer herself, Patrizia provides an opportunity for many to experience the Lagoon in a completely unique way, by paddling through the salt marshes at water level. There is no closer way to connect with this environment than by gliding through the barene in a kayak, truly immersing oneself in the landscape.

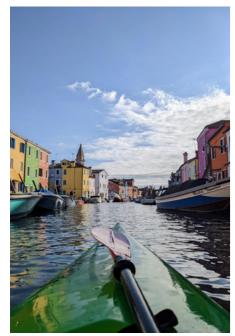


fig. 08/24 PATRIZIA KAYAKING THROUGH THE CANALS OF BURANO - Source: Associazione Lagunare Kayak Sant'Erasmo, Facebook



fig. 08/25 ASSOCIATION LOGO - Source: Associazione Lagunare Kayak Sant'Erasmo, Facebook



fig. 08/24 KAYAKING NEAR S. SPIRITO ISLAND - Source: Associazione Lagunare Kayak Sant'Erasmo, Facebook



fig. 08/25 PUNTA VELA DEPARTURE POINT



fig. 08/26 EXCURSION TO BURANO - Source: Associazione Lagunare Kayak Sant'Erasmo, Facebook

#### Tito

Categories: citizens/passionates/populizers, researchers, sports associationism, environmental activism

Tito is a retired schoolteacher, environmental activist and long-time canoeist with a deep, often critical, relationship with the Lagoon. Born in a riverside mill, he developed an early connection with flowing water, a point of reference against which the stagnant and polluted waters of Campalto, along the lagoon's edge, struck him with disappointment when he moved there as a child. Over the years, however, his perspective transformed into a form of critical care: a combination of ecological awareness, civic frustration and active engagement. In the 1980s, he co-founded the local canoeing association Arcobaleno, initially developed as a youth program in collaboration with the city of Venice. From there, his practice of exploring the Lagoon by kayak became both a form of resistance and a tool for environmental observation.



fig. 08/27 TITO AT THE CONFLUENCE OD EUROPEAN WATER BODIES IN VENICE by Nicolò Mair



fig. 08/29 TITO'S DRWAINGS: CAMPALTO ISLAND



fig. 08/30 TITO'S DRWAINGS: IDROVIA PADOVA-ADRIATICO - Source: academia.edu



Quando mi acciago da userie ni leo da la consenza da la companio del la companio d

155

deposito delle canoe ccie nella settimana che precede un uscita associativa; al vedi e venerdi pomeriggio, previa telefonata in sede per erer sicuri che Tito e Renato possano assisterci nelle anazioni o nelle messe a punto del materiale. Siamo una

Associazione, non un servizio.

Tito...Il fac rotum dell'Associazione che, da quando Tom geologo, malato di amore per i gatti, che era ospitato con la quando Tom geologo, malato di amore per i gatti, che era ospitato con la culotita e tutta la sua 'composina di gatti' nel carriel del deposito, è morto (dicembre 1998) ha trasformato, come in un mangia, il deposito da "accossera e gattile" in un ambient te vivibile e gustabile. E. aquando ha partecipato all'ascotto Venezia, ha copito, guardando la lu vera identifità di Tito quella del Mago Merlina. Eccolo qui in barba cappuccio cichidi e siguardo magico. Nan losciamolo solo per à fare que ste magie. Questo mago dell' Associazione, è un personaggio comodo per le sue "magie", cico finia a che i ci serve) mo potrebbe strancarsi anche Lui. La giola di stare assieme, è repoprizionale alla distribuzione della fatto. Viscire con trata cambie sia quella di mettrati in situazioni piacevoli ma non comode, sembra che voglia stimulare in se stesso e in apella con con como de per la consulta di mettrati in situazioni piacevoli ma con como de, sembra che voglia stimulare in se stesso e in apella con con como de, sembra che voglia stimulare in se stesso e in apella con con como de, sembra che voglia stimulare in se stesso e in apella con con como de, sembra che voglia stimulare in se stesso e in apella con con como con concescere tutti. Commelo 1

fig. 08/28 MAGAZINE OF THE CANOEING ASSOCIATION



fig. 08/31 TITO'S DRWAINGS: CIRCONVALLAZIONE LAGUNARE

#### Delegato del sindaco per le isole e la pesca

#### Categories: islanders, institutions

Alessandro Scarpa Marta, the city councilor appointed by the mayor to oversee relations with the islands and the fishing industry, hails from Pellestrina, an island in the Venice Lagoon. He is the key institutional figure dedicated to fostering the connection between the Lagoon, its islands and the municipality of Venice. Alessandro works closely with numerous associations and committees that promote the island territory and raise awareness of the Venice Lagoon. He also contributes personally through his blog (Scarpa Marta, 2025), where he documents and narrates the stories of the Lagoon's islands and keeps the readers updated on different initiatives taking place in the archipelago.



fig. 08/32 ALESSANDRO AT PELLESTRINA BEACH WORKS
- Source: Alessandro Scarpa Marta, Facebook, May 27, 2025



fig. 08/33 ALESSANDRO AT THE "SAGRA DEL CARCIOFO" IN SANT'ERASMO - Source: Consorzio del Carciofo Violetto di Sant'Erasmo, Facebook, May 15, 2025



fig. o8/34 ALESSANDRO WITH THE LACE MAKERS FROM THE ISLANDS - Source: Alessandro Scarpa Marta, Facebook, Aug. 23, 2024

#### La Compagnia dei Cippi

#### Categories: citizens/passionates/populizers

La Compagnia dei Cippi is an informal community of citizens dedicated to rediscovering and protecting the historic boundary stones (cippi di conterminazione lagunare) of the Venetian Lagoon. Founded in 2020 by Carlo Augenti, the group emerged from a personal journey: a bicycle trip around the Lagoon to locate and document the cippi, the boundary markers installed in 1791 by the Republic of Venice to define the legal perimeter within which the Lagoon was to remain free from land reclamation and permanent construction. What began as a solitary exploration evolved into a growing public initiative. Through the Facebook group Compagnia dei Cippi (2020), citizens share photographs, stories and historical informations and many have formally "adopted" one or more cippi through the Adotta un Cippo campaign.



fig. 08/35 COMPAGNIA DEI CIPPI - Source: Compagnia dei Cippi, Facebook



fig. o8/36 CYCLING TOUR TO THE CIPPI OF CAVALLINO Source: Compagnia dei Cippi, Facebook, May 28, 2023



fig. 08/37 SURVEY MAP OF THE CIPPI - Source: Compagnia dei Cippi, Facebook, May 17, 2023

#### Il viaggio di scoperta

#### Categories: citizens/passionates/populizers, musicians/authors/artists

Il Viaggio di Scoperta is a digital storytelling project that explores the cultural, historical and emotional landscape of Venice through video, narrative and social media. Created by Federico Blumer, who is also an author that published books about the history of Venice, what began as a personal exploration has become a full-time occupation producing engaging content through social media that blends history, popular appeal and civic reflection. Blumer's videos offer a different perspective on Venice and on its Lagoon, touching on everything from ancient trade routes to daily rituals and culinary traditions. His declared goal is to give voice to a disappearing city, to speak with and for the few remaining residents and to propose a new kind of belonging.



fig. 08/38 NIZIOLETTI VENEZIANI by Federico Blumer



fig. 08/39 IL VIAGGIO DI SCOPERTA INSTAGRAM PAGE Source: Il Viaggio di Scoperta, Facebook



fig. 08/40 IL VIAGGIO DI SCOPERTA LOGO - Source: Il Viaggio di Scoperta, Facebook

#### Me

#### Categories: citizens/passionates/populizers, researchers

I'm a student of Urbanism, and my first encounter with the Venice Lagoon occurred when I moved to Venice for my bachelor's degree. What began as a fascination soon evolved into a deeper exploration: I started discovering the Lagoon for pleasure while also studying some of its aspects through courses and workshops at the university. Over time, my desire to understand this environment more profoundly led me to make a radical choice: I moved to the island of Sant'Erasmo and began working on a farm there, fully immersing myself in the rhythms of the land and the local community. Now, as I develop my thesis, I continue to intertwine my research with the ethnographic stories presented here, aiming to bring a more grounded and concrete perspective to my work.



fig. 08/41 KAYAKING IN THE NORTHEN LAGOON



fig. 08/42 AT WORK IN THE ARTICHOKE FIELDS OF "I SAPORI DI SANT'ERASMO" FARM



fig. 08/43 WORKSHOP ON EDIBLE HALOPHYTE PLANTS IN SANTER ASMO

#### Lorenzo P. (Poveglia per Tutti)

Categories: islanders, citizens/passionates/populizers, militant/social associtionism

Lorenzo is one of the founders and he has been president of Poveglia per Tutti. Poveglia per Tutti is a civic committee created in 2014 to prevent the privatization of the island of Poveglia and to reclaim it as a public and collective space. Born in response to a state auction, the group mobilized thousands of citizens and raised over 400,000 euros through grassroots crowdfunding. Although the attempt to acquire the island was unsuccessful, the campaign sparked a broader debate on public heritage, commons and civic rights in the Lagoon. Since then, the committee has continued to promote the idea of Poveglia as a shared space, organizing clean-up actions, public events and cultural initiatives.



fig. 08/44 ISLAND CLEANUP AND MAINTENANCE DAY Source: Poveglia Per Tutti, Facebook, Feb. 9, 2025



fig. 08/46 ASSOCIATION LOGO - Source: Poveglia Per Tutti, Facebook



fig. 08/45 POVEGLIA ISLAND - Source: Poveglia Per Tutti, Facebook, Mar. 29, 2018



fig. o8/47 POVEGLIA CANAL AND BRIDGE - Source: Poveglia Per Tutti, Facebook, July 15, 2021



fig. 08/48 ASSEMBLY ON THE ISLAND - Source: Povegha Po Tutti, Facebook, Oct. 5, 2015

#### Lazzaretti veneziani

Categories: islanders, cultural/artistic associationism

The Lazzaretti Veneziani project is dedicated to the preservation and revitalization of the Venetian quarantine islands, particularly the Lazzaretto Vecchio and Lazzaretto Nuovo. To date, only Lazzaretto Nuovo has been restored. Through a long-term voluntary effort focused on cleaning, restoring and maintaining the island's architectural and environmental heritage, it now hosts archaeological campaigns, educational programs, exhibitions and collaborative events. These activities connect the site's history to contemporary themes such as ecology, resilience and collective memory.



fig. 08/40 LAZZARETTO NUOVO ISLAND - Source: lazzarettiveneziani.it



fig. 08/51 ARCHAEOLOGICAL EXCAVATIONS ON THE SITE Source: Lazzaretti Veneziani, Facebook, Sept. 6, 2024



fig. 08/52 "THE PATH IN THE BARENE" Source: lazzarettiveneziani.it



fig. 08/50 LAZZARETTO INTERIORS Source: lazzarettiveneziani.it



fig. 08/53 LAZZARETTI VENEZIANI LOGO Source: lazzarettiveneziani.it

#### Dreghe e i Fioi

#### Categories: musicians/authors/artists

Dreghe e i Fioi is the artistic project of Andrea, known as Dreghe, a Venetian singer and musician. The group, representing the Venetian reggae scene, conveys socially engaged messages, particularly with their latest album *Venexian Fora Casa*, which focuses on the issues and challenges facing Venice and its Lagoon. Notable examples are the songs *Gran Signori*:

"Sì, perché Venexia no la val più gnente, solo i schei ghe interessa alla zente e i dise che no ghe xe mai, anca se i gira e i xe sempre girai, gavemo vendù tuto, compresa la cultura [...] tuto vietà, neanca un puteo in campiéo, tutti quanti i scampa e i tacà a viver a Mestre, Airbnb per i turisti ricchi, affitti esplosivi, tutti quanti scampa, semo sempre de manco."

("Yes, because Venice isn't worth anything anymore, only money matters to people, and they say there's never enough, even though it's always there and has always been. We've sold everything, including culture... Everything's forbidden, not even a kid in the square, everyone's running away and moving to Mestre, Airbnb for rich tourists, skyrocketing rents, everyone's running away, we're always less.")

#### And Venexian Fora Casa:

"Venexia mal ciapada, ghe xe chi ghe protesta, ma ti te o sa quante navi in bacin passa, ma te par giusto, te par inteligente, e di sti problemi se ripassa poco niente."

("Venice, badly hit, there are those who protest, but do you know how many ships pass through the basin? But you think it's right, you think it're smart, and these problems are barely discussed.")



fig. 08/54 DREGHE & I FIOI - RAGGAE DA VENEZIA Source: Dreghe & i I Fioi, Facebook, Apr. 16, 2024



fig. 08/55 VENEXIAN FORA CASA MUSIC VIDEO Source: Dreghe e I Fioi, YouTube, Sept. 27, 2024

#### Marco (TOCIA! Cucina e comunità)

#### Categories: cooks, cultural/artistic associationism

Tòcia! Cucina e comunità is a collective based in Venice that explores cooking as a cultural and political tool for community-making and transformation. Founded by Marco, a cook-researcher, Tòcia! acts as a horizontal and interdisciplinary platform where food becomes a language for investigating the Lagoon's landscapes and the human and more-than-human relationships that inhabit them. Their work blends conviviality, research and activism, with a focus on zero-waste practices and the creative use of food scraps as central elements of experimentation. The name Tòcia! comes from tocio, the Venetian word for sauce, a mix of flavors and identities. It evokes the act of tociare, dipping bread into the sauce: a simple, shared and slightly irreverent gesture. For the collective, it symbolizes community as mixture, resistance and participation, a way to transform places through convivial and political acts of cooking. Through public events, meals and workshops the group fosters reflections on ecology and care, proposing cooking as both a gesture of resistance and a space for imagining alternative futures.



g, 08/56 MARCO IN SANT'ERASMO. COOKING FOR THE 'CONVIVIAL TABLES' PROGRAM ON FOOD AND ECOLOGY



fig. 08/58 FOOD BY MARCO AT SPIAZZI, VENICE



fig. 08/59 KITCHEN OF CONVIVI ACQUATICI AT CINEMA GALLEGGIANTE FESTIVAL - Source: Microclima, Facebook



fig. 08/57 TOCIA CONVIVIAL TABLE IN SPIAZZI, VENIC



fig. 08/60 TOCIA'S LOGO - Source: Tocia! Cucina e comunita Facebook, Feb. 10, 2020

161

#### Venissa

#### Categories: islanders, farmers, cooks

Venissa is a wine estate and hospitality project based on the island of Mazzorbo, where viticulture, culinary experimentation and landscape care intertwine. Founded in the early 2000s by Gianluca Bisol, the project began with the recovery of Dorona, an almost extinct native grape variety once cultivated throughout the Lagoon, that was re-established within the walled garden of a former monastery. Beyond wine production, Venissa includes a Michelin-starred restaurant led by chefs Chiara Pavan and Francesco Brutto, whose cucina ambientale (environmental cusine) draws on the Lagoon's unique ecosystem, using local herbs, vegetables and underutilized/alien fish species. Their approach highlights sustainability and innovation, earning recognition such as the Green Michelin Star.





fig. 08/63 PAVAN & BRUTTO'S "CUCINA AMBIENTALE"





fig. 08/64 DORONA WINE, NATIVE TO THE VENETIAN LAGOON - Source: venissa.it



fig. 08/65 CUCINA AMBIENTALE WITH INVASIVE SPECIES (BLUE CRAB) - Source: Venissa, Facebook, Apr.l 27, 2025

#### Lorenzo B. (Prometheus Lab)

#### Categories: cooks, cultural/artistic associationism

Lorenzo, a designer and trained chef, is the founder of Prometheus Open Food Lab, a research platform that bridges gastronomy and landscape. After studying visual arts, gastronomy and completing a Master's in Eco-Social Design, he launched the project between the Dolomites and London, before relocating it to the Venetian Lagoon in 2020. Here, he focuses on barene, salt marshes, seen as marginal yet essential environments. His work explores the edible potential of local halophytic plants, often excluded from mainstream food culture. Through Prometheus Lab, Lorenzo proposes a new paradigm for landscape stewardship, grounded in traditional knowledge, culinary practices and territorial engagement. His activities include workshops, field explorations, consultancy, chef residencies and the pilot project Tidal Garden, which seeks to reconcile ecological care with human use of the Lagoon's marshlands.





Source: thetidalgarden.earth



fig. 08/69 SALICORNIA, EDIBLE HALOPHYTIC PLANT Source: thetidalgarden.earth





fig. 08/70 PROMETHEUS OPEN FOOD LAB LOGO Source: prometheusofl.com

163

#### No Grandi Navi

Categories: environmental activism, militant/social associationism

The Comitato No Grandi Navi – Laguna Bene Comune is a civic movement advocating for the complete removal of cruise ships from the Venetian Lagoon, framing the issue as one of ecological justice and collective responsibility. Originally formed as a coordination platform for various associations engaged in Lagoon-scale environmental activism, the committee has since expanded its mission into a broader struggle for the protection and restoration of the Lagoon as a whole. It recognizes the Lagoon not just as a landscape, but as a common good and vital ecological infrastructure essential to Venice's survival. The committee unites citizens, activistscand researchers through demonstrations, legal actions and public protests, calling for the cessation of cruise traffic to enable the Lagoon's hydrodynamic and morphological recovery.

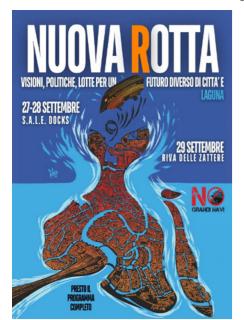


fig. 08/71 Source: NoGrandiNavi, Facebook, Sept. 3, 2024



fig. 08/73 ASSOCIATION LOGO ON A BALCONY IN VENICE



fig. 08/72 NO GRANDI NAVI PROTEST IN THE GIUDECCA CANAL - Source: Comitato NoGrandiNavi, Facebook, 2016



fig. 08/74 ARTWORK BY COMIC AUTHOR ZEROCALCAR



ng. 08/75 PUBLIC ASSEMBLY Source: Comitato NoGrandiNavi, Facebook, Oct. 7, 2023

#### Pietro (Barena Bianca)

Categories: researchers, environmental associationism, cultural/artistic associationism

Barena Bianca is an artistic and ecological collective founded in 2018 by Pietro and Fabio, operating at the intersection of activism, art and environmental education to foster new forms of connection between humans and the Lagoon ecosystem. The collective adopts the barena, the Venetian salt marsh, as both symbol and subject: essential to the Lagoon's ecological balance, the barena becomes a metaphor for resilience and visibility in a landscape increasingly threatened by neglect and commodification. The project brings together ecology, art and community building by organizing workshops, installations and participatory events in public space, encouraging emotional and embodied relationships with the Lagoon.



fig. 08/76 PIETRO DURING A WALK ON THE MURAZZI IN LIDO ISLAND - Source; @barenabianca. Instagram, Nov. 20, 202



fig. 08/78 "SGUAZZIAMO!", RIVER ECOLOGY WORKSHOP Source: barenabianca.earth



fig. 08/79 DIET FOR RESISTANCE AT OCEAN SPACE VENICE - Source: barenabianca.earth



fig. 08/77 "PANTAGRUÉL" IN THE VALLI IN LIO PICCOLO Source: barenabianca.earth



fig. 08/80 BARENA BIANCA LOGO - Source: barenabianca.earth

#### Carlo C. (Compagnia Gongolante)

#### Categories: citizens/passionates/populizers, sports associationism

Carlo Cappellari is a lawyer and passionate rower who transformed his relationship with Mestre and the Lagoon into a longterm civic and cultural exploration. His story begins with voga alla veneta (venetian rowing) practiced in the rivers of Padova, and continues with the foundation of the Compagnia Gongolante, a rowing group blending conviviality and critical observation of the territory. Once moved to Mestre, he discovered the fragmented, often inaccessible state of local waterways, a realization that pushed him toward the Lagoon, and later into the discovery of the cippi di conterminazione. That's how he began a multi-year journey retracing the perimeter of the Lagoon and documenting the landscapes, infrastructures and contradictions surrounding each cippo. His reflections, shared with the Compagnia Gongolante through ironic and poetic email dispatches titled Les mervelles du mond, are a mix historical research, civic critique and environmental awareness.



fig. 08/81 CARLO WITH A CIPPO - Source: Carlo C., Facebook, May 26, 2023

fig. 08/82 LES MERVEILLES DU MONDE Nº381 - Source:



fig. 08/83 COMPAGNIA GONGOLANTE LOGO

#### **Amina**

#### Categories: researchers

Amina is a landscape architect and PhD candidate in Urban Planning at the IUAV University of Venice. Since 2019, she has been deeply engaged with the Lagoon, not only as an object of study but as a space she inhabits daily, having moved to Venice to pursue her research. Her doctoral project addresses the hydromorphological challenges of the Lagoon, proposing a strategy grounded in building with nature principles through a research by design approach. Amina actively collaborates with various local organizations committed to the protection and regeneration of the Lagoon. Her work seeks to foreground the community dimension of water, promoting an ecological and social vision of the Lagoon as a living space and a shared responsibility.

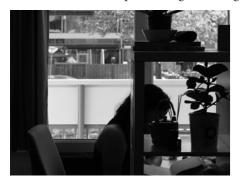
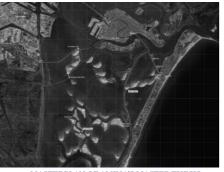


fig. 08/83 AMINA AT WORK - Source: tudelft.nl



PROJECT "THE OPERATING VENETIAN LAGOON: THE AGENCY OF BARENE" by Amina Chouairi, 2020



fig. 08/85 SUMMER SCHOOL IN THE VENICE LAGOON ORGANIZED BY AMINA - Source: @towardsanatlas, Instagran

#### Margherita (We Are Here Venice)

Categories: researchers, organizations, environmental activism

Margherita is a researcher at We Are Here Venice, a third-sector organization that bridges research and activism to promote the conservation of Venice and its Lagoon as a living system. The organization operates as both a research collective and activist platform, strengthening connections between scientific data, local communities, policymakers and cultural institutions. Among its key initiatives is the ecological restoration of artificial salt marshes (barene) in the central Lagoon, using a nature-based solutions approach to restore the complexity that makes these environments vital: pioneer vegetation, micro-channels, open water areas and biodiversity. The organization's work is grounded in a paradigm shift, viewing the Lagoon not merely as an economic or infrastructural asset, but as a fragile ecosystem. We Are Here Venice promotes a way of inhabiting the Lagoon that embraces awareness and responsibility toward both the city and its broader environmental system.





fig. 08/88 "GIANTS OF THE LAGOON" SCHOOL PROGRAMME Source: We Are Here Venice, Facebook, September 3, 2024



fig. 08/89 COLLECTION OF SAMPLES IN THE BARENT Source: We Are Here Venice, Facebook, March 11, 2025



Source: We Are Here Venice, Facebook, August 1, 2024



fig. 08/90 ASSOCIATION LOGO - Source: weareherevenice.org

#### **Venice Calls**

Categories: environmental activism, militant/social associationism

Venice Calls, founded in April 2019, is a social promotion association established by a group of young Venetians committed to confronting the city's growing social, environmental and economic challenges. Its mission is to address these issues by promoting sustainability and innovation through grassroots volunteer action. The organization brings together citizens, institutions and local groups to co-create projects aimed at building a more resilient and livable Venice. At the core of its work is a belief in inclusivity, collaboration and active civic participation. Among its activities are workshops and public forums, clean-up actions across various parts of the Lagoon and awareness-raising campaigns that foster a culture of care and civic engagement.



fig. 08/91 CLEAN UP EVENT - Source: Venice Calls, Facebook, March 31, 2025



 ${\it fig.}~08/93~ASSOCIATION~LOGO-Source: venice calls.com$ 



fig. 08/92 KAYAKING NEAR S. SPIRITO ISLAND - Source: Venice Calls, Facebook, May 18, 2023



fig. 08/94 CHIOSTRO SS. COSMA E DAMIANO, GIUDECCA ISLAND, ASSOCIATION'S PREMISES - Source: Venice Calls, Facebook, July 26, 2022



fig. 09/95 LAGUNA CAMP ON VIGNOLE ISLAND Source: venicecalls.com

#### Microclima

Categories: environmental activism, cultural/artistic associationism

Microclima is a cultural and curatorial project based in Venice, founded in 2011 by Paolo Rosso at the Serra dei Giardini. With a strong focus on the relationship between art, nature and the public sphere, Microclima develops research-driven programs that combine experimental formats and interdisciplinary collaborations. Among its most emblematic initiatives is Cinema Galleggiante – Acque Sconosciute, an annual floating cinema held in the waters behind Giudecca, defined as "an amphibious settlement that stages experimental artistic forms in the Venetian Lagoon." and whose motto is "Rethinking the city starting from the Lagoon." (Microclima, 2025). Microclima is currently applying for the concession of Forte Sant'Andrea, where it already organizes cultural events such as concerts, performances and site-specific installations. The initiative aims to bring new life to the island by connecting artistic practices with the natural and historical landscape of the Lagoon.



fig. 08/96 CINEMA GALLEGGIANTE - ACQUE SCONOSCIUTE, BEHIND GIUDECCA ISLAND - Source: microclima.net



fig. 08/98 LIVE MUSIC EVENTS AT FORSTE SANT ANDREA Source: Microclima, Facebook, June 1, 2024



fig. 08/99 CORTEO LAGUNARE - FESTIVAL TRANSEUROPA Source: Microclima, Facebook, November 19, 2024



fig. 08/97 POSTER YEAR 2022 - Source: microclima.ne



fig. 08/100 ANNOTAZIONI SUPERFICIALI AT FORTE SANT' ANDREA - Source: Microclima, Facebook, November 15, 2023



#### Towards a collective effort: tracing my interdisciplinary journey through the rights of nature discourse

The interdisciplinary approach I embraced, as both lens and method, soon turned into a concrete process of engagement. What began as a desire to step outside the conventional boundaries of urbanism and explore the rights of nature through active interaction took shape through a series of encounters, exchanges and collaborations that became foundational to this thesis. My engagement with the idea of rights on nature and of rights for the Venice Lagoon gradually evolved into a personal and situated process of interaction with those already working on the topic, both locally and internationally. In fact, I found myself moving between two intertwined scales: the local context of the Venice Lagoon, within the community of people already thinking about how to translate the idea of Lagoon rights into tangible action, and the broader European network of waters exploring similar questions, through the network of the Confluence of European Water Bodies. The interactions I began to cultivate in the early months of my thesis journey, initially informal and driven by curiosity, slowly solidified into collaborative intentions.

This section retraces the steps of my personal engagement with the theme of the rights of nature, at both scales.

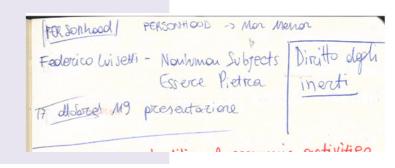
**EUROPEAN SCALE** LOCAL SCALE UROPEAN WATER BODIES 3 - 6 OCTOBER 2024 Venice Italy

Verso una Carta dei Diritti della Laguna

fig. 08/102 CONFLUENCE OF EUROPEAN WATER BODIES fig. 08/103 TOWARDS A CHARTER OF RIGHTS FOR THE LAGOON EVENT Apr. 7, 2025 - Source: unive.it

13 | 09

2024



During my first meeting with my mentor Elena Longhin, she introduced me to the idea of legal personhood for ecosystems, a concept entirely new to me. It immediately resonated: this was a turning point that sparked my interest in the topic.

A few weeks after, while in Venice. I happened to attend a session of the second edition of the Confluence of European Water Bodies, the yearly conference of a network connecting activists, artists and researchers working on legal recognition and representation of water bodies. It was my first exposure to the European discourse on these themes, and, although I could attend only one session, it marked the beginning of a journey.

3-6|10

2024

06 | 12

Chiarchierate can Pietro Linta... É Moto Muninante per granto riguerola il discorro sui rights of noture in Lopuna, visto cha Pietro al centro di queto abbattito che sta honcendo Abiano Potto discorry un po povered sue temo per pa colora in quertiani più specificle di qual é la realtà a veneria, quali le aprioni ande la stinguica dell'associazionismo locale. Alla fine pli ho ducha esporto la mia volontà di provore a partecipore divanno a queto dibolito e tealmento che si rivorato a fore. Potrebbe essero un interessoute initio per una phone collaboratione

2024

In Venice, I had my first meeting with Pietro Consolandi, a pivotal figure in both the local and European contexts: activist, researcher and one of the co-organizer of the October event. Our conversation covered the international landscape (GARN- Global Alliance for the Rights of Nature, Earth Law Center, International Rights of Nature Tribunal and Conflence of European Water Bodies) and the emerging local efforts. He confirmed that a first informal meeting about rights for the Lagoon had already taken place in Venice, involving local groups like Poveglia per Tutti. I expressed my willingness to contribute in any way and he welcomed my involvement.

2024-2025 - Source: water-bodies.eu

I joined my first online assembly of the Confluence, a monthly meeting for updates, strategy and coordination across different "waters." The basic structure is always the same: a welcome round and introductions for newcomers. updates from different water bodies, discussion of shared goals (including the next Confluence in September 2025 that will take place in the Netherlands) and a final open call for proposals.

23|01

2025



#### MONTHLY ONLINE WATER BODIES MEETING

fig. 08/105 Source: water-bodies.eu

30|01

I took part in an

in-person Con-

blishing.

2025



I participated in the "Whose Ocean?" Assembly in The Hague, organized by Utrecht University, Embassy of the North Sea and others, a public event that brought together academics, artists and activists to challenge how the ocean is represented in law. It was the first time I encountered the rights of nature through an artistic lens.

fig. 08/106 WHOSE OCEAN ASSEMBLY BROCHURE - Source: uu.ni

31|01

2025



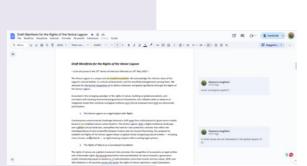
I continued my participation in the monthly Confluence of European Water Bodies online meetings.



19|02

2025

03



2025

Meanwhile, on the Lagoon side. things were evolving. Pietro informed me about and shared a first draft of a Charter of the Rights of the Venice Lagoon, written by Silvia Bagni, a legal scholar at the University of Bologna, expert in ecological constitutionalism and rights of nature. This document became the catalyst for a participatory process aimed at collectively shaping and formalizing the rights of the Lagoon.

I participated in the public assembly organized by Pietro Consolandi and Amanda Rossi, part of IDRA (Iniziativa per i Diritti delle Reti Idriche) and other collaborators at Ca' Bottacin (NICHE, Ca' Foscari) to discuss the draft of the Charter with many local associations that joined, contributing edits, comments and proposals to the draft. I acted as note-taker and I helped

to structure the feedback.

07|04

2025



16|04

2025



During the monthly Confluence meeting, we shared updates on the Manifesto process. Five working groups were launched: 5-year plan, art & programming, legal, communication and fundraising.

A collaborative revision phase followed the April 7th assembly, involving a core working group composed by Silvia Bagni (University of Bologna), Amilcare D'Andrea (University of Bologna), Pietro Consolandi (NICHE - Ca' Foscari, TBA21-Academy, IDRA, Barena Bianca), Luca Cosentino (wetlands), Mattia Favaretto (Poveglia Per Tutti), Alex Putzer (IUCN World Commission on Environmental Law), Amalia Rossi (IDRA, Nuova Accademia di Belle Arti), Katja Schechtner (MIT, Senseable City Lab & LCAU) and myself. The group finalized the revised version of the draft Manifesto for the Rights of the Venice Lagoon during an online drafting session in view of its public presentation.

2025 14 | 05

30|04



of the Venice Lated at the Venice nale in a panel event with researchers, designers, legal experts and representatives of the Lagoon itself

2025

The draft "Manifesto for the Rights goon" was presen-Architecture Bienas subject.

26 | 06

Online public assembly to discuss the most recent draft of the Manifesto with the participationg Lagoon associations and single citizens.

2025

31st Tawoty 2025
Confluence of the European Water Radior Annassy of the North Sea
Assembly Tempel, Amsterdam
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This process, evolving from personal positioning, to interdisciplinary interaction, to collective activation, illustrates how the rights of nature framework became not only a theoretical lens, but also a concrete method of engagement.

The participatory pathway I followed, which is still ongoing and will continue also after my graduation and the conclusion of this project, helped structure the final outputs of this thesis. While the content and implications of the draft Charter, as well as a possible pathway towards the recognition of a legal entity for the Lagoon, will be explored in the next chapter, here I want to emphasize the methodological shift that this journey represents.

#### **RELATIONSHIPS OF WILL, AND ACTION**

This chapter gathers the voices of eleven among the *few* among the *many*, those who continue to relate to the Lagoon through a relationship of will, and action. Building upon the exploration conducted in the previous chapter through the ethnographic portraits, here these connections are deepened and made tangible through eleven semi-structured interviews conducted during two fieldwork sessions in Venice, in December 2024 and April 2025.

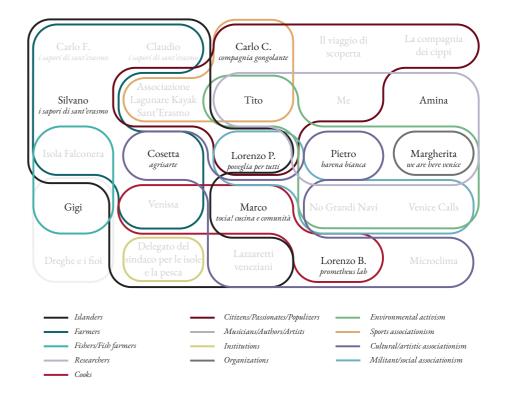
The interviewees were selected among the figures encountered during fieldwork and already featured in the ethnographic portraits, and are higlighted on the diagram aside. Some were individuals I had come to know over time through shared experiences in the Lagoon, others were known only indirectly. As outlined in the methodological framework, this proximity, rooted in prior experiences and knowledge, enabled more fluid, open exchanges and enriched the collaborative nature of the fieldwork. These conversations mark a shift: if the portraits introduced the relational potential of each figure, the interviews seek to uncover their motivations, imaginaries and concrete gestures of resistance, organizing and action. Each interview traces a different path of engagement, as the relationship of will takes on different forms for each person, rooted at times in their work, at others in personal passions, activism or long-standing commitments. Yet all share an orientation: to live with the Lagoon, not merely alongside it.

While grounded in the present, these relationships and the actions they generate already move toward a future horizon. They mark an entry into what this research defines as a while before future, a temporal space where imagination and action begin to shape alternative trajectories, including the possibility of a new form of protection for the Lagoon.

In addition to documenting present relationships, each interview closes with a wish: a hope for the Lagoon's future. These wishes offer a glimpse into what a different future might look like if shaped by those who already act for the Lagoon today. They will be revisited in the final chapter as guiding intuitions for a new legal and design framework, one that recognizes the Lagoon as a subject of rights. Each entry includes the interviewee's categories, a spatial mapping of their places of connection with the Lagoon, a photo, their relationship of will and their wish for the future. Since the To make these interviews more accessible and interactive, they were recorded in both video and audio format and, togheter with the printed version you can find in this thesis, they compose a multimedia archive, an output of the *process* of this research.

The interviews are collected in audio and video format and mapped in an online archive accessible via the QR code.





#### Silvano

Categories: islander, farmer

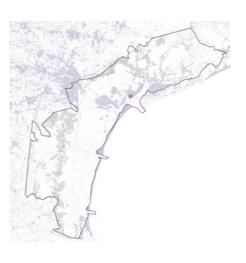
#### Relationship of will:

"My name is Silvano, I've lived in Sant'Erasmo since birth, I was born in 1951 in a rather unlikely way. Usually in those years people gave birth at home, but unfortunately in my case it didn't happen because the birth was problematic in those days and they took my mother to the hospital in a four-oared sandolo and that's how I was born, in a rather difficult way. They told me this and anyway, since I was born, I have lived here in Sant'Erasmo, I have lived here with my family... for 4 generations... I'm happy here."

#### Wish for the future:

"The future... in my opinion the only perspective for the future of Sant'E-rasmo can be to combine agriculture with tourism, because now there is also a hunger for green tourism. To be able to combine tourism with the green, with cultivation, but we also need structures here, because when tourists

come to Sant'Erasmo, they should also find a suitable structure, even for sleeping, sleeping in a tent is a bit difficult, you can't... For example, in Sant'Erasmo, if there was an agricamping, those who have caravans or campers can't come to Sant'Erasmo because there is no ferry connection, so if there was, maybe it could be a possibility, because now there is a hunger for green, there is a hunger for... they say the "green", I was born in the middle of the "green", I am still in the "green", but I don't know, in short, a balance is needed."







WISH: sustainable tourism

#### **Amina**

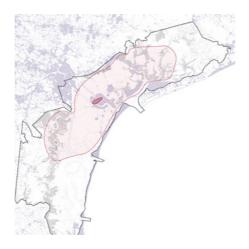
Categories: researcher

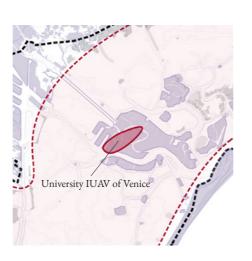
#### Relationship of will:

"I am a landscape architect and a PhD student in urbanism at the IUAV University of Venice, and I have been working on the Lagoon since 2019. I have been living the Lagoon on a daily basis for three years, since I started my PhD, because it was a big dream of mine not only to be able to do my PhD in Venice, but also to move to Venice itself and live the Lagoon. So, with the excuse and thanks to my thesis, I continue to experience places, dimensions and landscapes that I would never have been able to experience otherwise."

#### Wish for the future:

"What I hope for the future of the Lagoon is that it finally finds a deserved space in its character of transition and its character of instability, of continuous transformation, and that this may determine the way it is experienced, is designed, is narrated, and not the desire to stop it in a time in a space that is unable to tell its true continuous dynamism."







WISH: adaptive design for continuous transformation

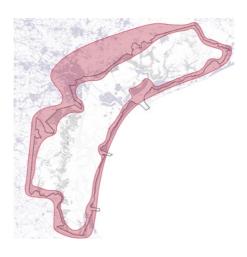
#### Carlo C.

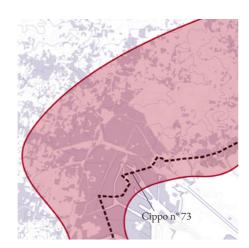
**Categories**: citizen-passionate-populizer, sports associationism

#### Relationship of will:

"I am a lawyer and I lived in a beautiful part of Padova where all my friends came, but while the wives had something to talk about, we had nothing to talk about. We looked for something to talk about and discovered that we had all had an experience of rowing "alla Veneta". Having had this experience, in 2006 we founded an association called "Torneremo a vogare" (Let's row again), and we did it in the canals of Padova, in the rivers and canals of Padova, and for 10 years we had fun going up and down the canals and rivers of Padova. Then the events of life brought me, well they brought my wife back to Mestre and I followed my wife to Mestre and when I got to Mestre, I went in search of the rivers of Mestre. Then what happened, my friends said to me, but are you going to stay in Mestre, the ugliest city in the world? Well, since my wife says that Mestre is the most beautiful city in the world,

I told them, look, I'll show you that Mestre is the most beautiful city in the world, and I started writing them a weekly e-mail, telling them about Les Mervelles du Mond, the wonders of the world, which is the original title of Marco Polo's Il Milione, thus reversing the figure of Marco Polo, who goes to Asia, and I, a new Marco Polo, go to Venice and tell everyone about the wonders of Venice. Obviously, the first three years were a coming and going on the Marzenego river, the Sile river, the inland, the Bottenigo and all the inland areas of the mainland, and then I discovered the "Cippi" of the Lagoon, the conterminating stones of the Lagoon of 1791. I fell in love with these cippi and I adopted one of them, one of the most problematic and damaged ones, poor thing, because it was in via Paganello at the Porto Marghera station and it was stuck in a reinforced concrete fence that supported the railway embankment. Luckily, thanks to the "Compagnia dei Cippi" and its initiative "Adottiamo i Cippi" (Let's adopt the Cippi), the cippo was protected from the works on the embankment





and was first removed to prevent it from being destroyed and then replaced last December and now it stands alone and we hope that when the line opens it will be there to be seen in all its beauty. And so now, starting from Cippo 73 backwards, that is 72 71 70, I'm going all over the lagoon, telling about Cippi and related things, that is, everything around Cippi and everything that happens. Now for four years, starting from 73 and going backwards, I have arrived at Cippo 29, which is the last one in Sant'Erasmo. Now, in January, I'll start from number 28, which is no longer there, and I'll go to Lido, Alberoni, Pellestrina, Ca Roman, Chioggia, Romea and then back to Mestre and then I'll see."

#### Wish for the future:

"Well, if we save what is there, we will have done a great thing, a great miracle. Of course, to save what is there is to save something that is completely unnatural, because let's not get the idea

that the Lagoon is a natural entity, etc., it's completely man-made, but let's say that, even now, nature can recognise itself in nature. We have the passage of birds, we have areas where they stop, where they winter, we have the possibility of coming into the Lagoon and breathing... I don't know if this is possible, because I don't know if the politicians on the other side, the centre-left, if they come back to power in the Lagoon, will have the right mentality to remember that, for example, the airport shouldn't have a third runway, to remember these things, and that if we want to preserve the Lagoon, if we want to enjoy it, it has to have a more proportionate and responsible tourism and, above all, we have to deal with the problem of the waves. Either the waves in the Lagoon are stopped, or the Lagoon is not usable, it is not enjoyable, in other words, when will I be able to go rowing in the Lagoon, poor as I am, if the waves are not stopped? I'll only be able to walk."



Source: Carlo C., Facebook, May 26, 2023

WISH: preservation

#### **Pietro**

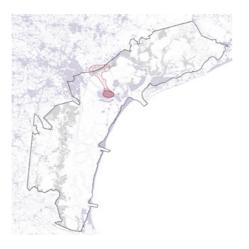
**Categories**: researcher, environmental associationism, cultural/artistic associationism

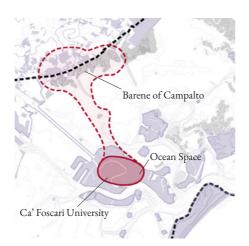
#### Relationship of will:

"I founded Barena Bianca in 2018, together with Fabio Cavallari, after a journey that started from political theory and developed into visual arts. I founded Barena Bianca, which is an association of ecology, art, community building and play, after getting to know the Lagoon through kayaking trips with an activist from Campalto called Tito Pamio, and after seeing the Lagoon through the eyes of a person who has coexisted with the ecosystem all his life. Barena Bianca is therefore born from an awareness of the link between man and the ecosystem and, through art and ecology workshops, aims to develop a sentimental link between the inhabitants of the Lagoon and the Lagoon itself."

#### Wish for the future:

"For the future, I hope that this period of popularity for the Lagoon will continue and that this spontaneous interest will become more and more profound, out of the awareness that we need new tools to protect and regenerate the Lagoon, seen as a subject to work with and not as an object to govern and damage."







WISH: protection and regeneration; subjectivity

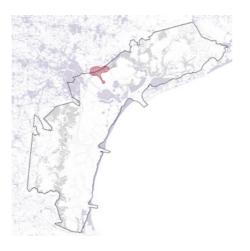
**Categories**: researcher, sports associationism, citizen-passionate-populizer

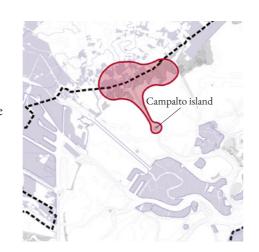
#### Relationship of will:

"I'm from a river, I was born... look at Mulino Teodori on the Internet, I was born in a mill, my father was a miller and then with the crisis of '29, Wall Street, he went bankrupt, 13 children and he decided to go and work for Breda, which is now Fincantieri... see Mulino Teodori? That's where I was born, I grew up by a river and, to be honest, when I arrived in Campalto, this famous Lagoon that enchants the world was horrible, it was disgusting... the black water, the terrible smell, the layers of blue clay, the layers of ochre clay that they worked with... where is the fresh, flowing water of my mill that delighted me so much? However, we have tried to make this Lagoon look a little less disgusting than it really was... I was an elementary school teacher, and my wife and I had the adventure of starting a kayaking activity because an educator from the Municipality of Venice, back when the city was governed

by the left, came to me looking for an idea to entertain teenagers in their free time in the new neighborhood of Villaggio Laguna, which at the time was called CEP, Public Housing Center. Since some friends I had met through church had made their own kayaks, I said, why don't we do kayaks? And so we started making about 15 kayaks together with the kids.

When the kids reached their teenage years, they didn't want to spend their Sundays doing hard work anymore; they preferred other activities. So those kayaks ended up unused. In the meantime, with our Scout children we have seven—we started using the kayaks, and all the Scouts wanted to go kayaking. So we asked the Municipality, why don't you give them to us? They told us, if you form an association, we'll give you the kayaks that were left behind in the community center. So, in 1986, we formed an association, and since then, people haven't stopped asking us to go canoeing to enjoy what little good remains in our Lagoon environment here in Campalto. We explored the lagoons of the Triveneto





area, the rivers, and the coastline, far and wide, and later even the Adriatic and Greece. But our excursions mostly stayed within the Triveneto region and the surrounding foreign areas. Now I'm retired. I've put down the oars, and I've even stopped going to Campalto Island, which we cared for over many years to make the Lagoon more beautiful. But now I hope that others will continue."

#### Wish for the future:

[talking about rain problems] "Sometimes I mention it, whether it's about my own vegetable patch here, which is eaten by snails, or so that people understand that the MOSE system solves part of Venice's problems, if it works, but it doesn't solve the problems related to port activity, to the economy - which is the most important thing - or to the movement of goods, to rainfall or flooding. They won't be solved... So why do people still think that Venice is its Lagoon and the Lagoon is Venice?

Why is that? Because we're environmentalists and everything has to stay the way it is. But it was never the way it is - it has always changed. That was also Rinaldo's idea, the one that won the Nobel Prize. He said: "But what Lagoon are we talking about? There is no single, original Lagoon on which to base these theories, and yet here we are. It involves the whole Triveneto region, the economy, the geology, the hydraulics, the sea and Venice, which is the last to arrive... Twenty years ago, there was often talk of an area called PaTreVe as a single economic centre for Triveneto. For me, the link with water - whether it's the Sile river or the water that comes from the Padova area, which is often flooded - is crucial. For me, the Idrovia waterway would be helpful, even if at IUAV they say no."



TITO by Adriano Voinich

WISH: infrastructural innovation

Categories: fisher, author & artist

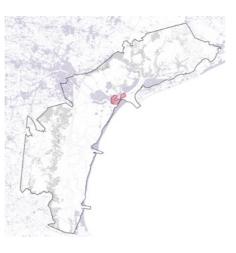
#### Relationship of will:

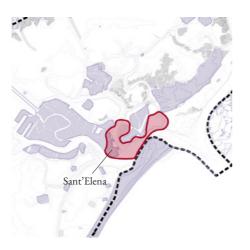
"My name is Luigi Divari, I practised fishing from the age of seven until a few days ago, but above all I have always been interested in historical research, a little bit scientific about fish and marine things, a little bit historical about Venice, the Lagoon, boats and navigli, the whole watery world of the Alto Adriatico has always interested me."

#### Wish for the future:

"I can't see it in the future... if we consider that the water rises a few millimetres a year, some say 3, some say 7-8, then if we do the maths, in 50 years or so I don't even know what Venice will be like, because the ground you can walk on now is what you see, but if the water rises 60 centimetres there are areas where you can't walk, and you can't always raise the entrance doors, otherwise what do you do it? do you cut them? So everybody thinks about Venice in the future, but in the

future... the future is in a few decades. It will be like it was 10,000 years ago, with much higher water, we will see islands that will be much smaller and only the upper part, the higher banks, many houses will be flooded, like if you go to the Po Delta, you see farmhouses that have been flooded... and so I don't know, nobody is talking about these problems here, it seems that the MOSE has solved everything, but the MOSE will not be needed in 20 years, either you close it forever or the water will always be on the banks. So to build the MOSE it took them 30 years of discussions, let's do it this way, let's do it that way, no it costs too much, so to do a work to replace the MOSE, or any modifications to it, they should start talking about it now, because in 30-40 years we will have water at our ankles, but no one talks about it, it seems that the MOSE has solved everything, but it has solved nothing."







WISH: none

#### Lorenzo P.

**Categories**: islander, citizens/passionates/populizers, militant/social associtionism

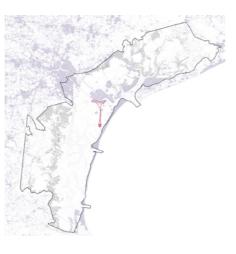
#### Relationship of will:

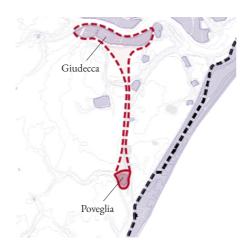
"My name is Lorenzo Pesola and I am an architect. I have been living in Venice since the early 1990s, particularly on the Giudecca, a rather close-knit community that has certainly influenced my being here, which, however, has been interrupted several times by periods of work abroad. I am a member of the association Poveglia per Tutti and also a former president of this association, I believe the second or third since its founding in 2014. Above all, thanks to this story, I have long considered the Lagoon from the perspective of its value as public property, as a common good. This has been the lens through which, due to the controversy that led to the creation of the Poveglia association, I have mostly looked at the Lagoon. Poveglia per Tutti, in my view, first and foremost had to do with a group of extraordinary people who live the Constitution, who embody

it. Thanks to the value of this initial group of people, it was possible to create a movement, a great popular mobilization, that these people knew how to protect and strengthen, which was not a given, and they have continued to do so until today, after ten years of intense battles, in a transparent and selfless way."

#### Wish for the future:

"My wish is that we find newer, more contemporary, more coherent languages, so that this awareness, so that these messages, let's call them values [about the Lagoon as a common good] reach the highest number of people possible, because then it is a chain that necessarily has to propagate over time."







WISH: defending the commons through newer, more contemporary forms of expression

#### Cosetta

Category: islander, farmer, cultural/artistic associationism

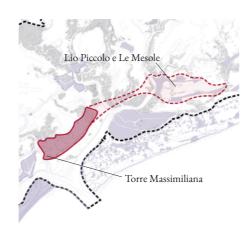
#### Relationship of will:

"I arrived on this island about twenty years ago, but before that I lived in a nearby place, so the customs and traditions were very similar, because before I was in Lio Piccolo, then I moved here to Sant'Erasmo. One of the first people I met here was Elsa. One day, when she wasn't feeling well, she said to me, "Cosetta, you who are a bit outgoing, can you replace me? I have a visit with some children coming here, and you need to explain how a chick hatches from the egg, how a plant grows... Can you take my place?" She sparked my passion for this. She became my teacher and helped me become a guide, she taught me, started me off, introduced me to the people who came to see if there was someone who could lead tours on the island...

With AgriSarte, we carry on what could once be called the domestic economy, because we believe it will be important in the years to come. We

pass on recipes that save what would otherwise be considered waste, recovered in traditional dishes rather than thrown away in the fields as compost. Then, regarding sewing, we teach how to mend, and also a sewing technique that was used after the First World War... so there's a whole tradition of sewing that we don't want to forget. Then there's knitting, because once here there were also sheep. Now we are working with nettle fiber, which we rediscovered ourselves, because once nettle fiber was used instead of cotton. which was unavailable due to the naval blockade after the First World War. We also recover sacks made of natural fiber, it's always a circular economy... So, many things like these, but I believe one of the most important priorities beyond this, to pass on the secrets from this treasure chest of knowledge, is the human contact itself, to give each other words of comfort in sad moments or to laugh together, being together is, in my opinion, what helps us to live better."

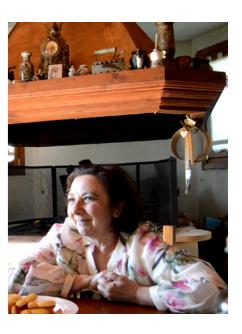




#### Wish for the future:

"For sure the idea that new families might come here and carry on these traditions. We can support and teach what we know, because being in a new different environment like this one can be difficult, right? And then maybe if someone arrives, they might ask themselves: what are the opportunities here? Surely there's potential both in crafts and in horticulture, as we are already doing. To help this develop, it would be wonderful to pass on a kind of "seal of approval", a shared knowledge passed down from our parents, so newcomers don't find themselves alone, maybe like what has already happened... Young people have arrived who didn't know the place, and they ended up watering lettuce with salty ditch water. If you don't know the area, you don't know how to grow things properly. So maybe us women, well, we somehow manage, because we organize our days differently, to carve out those few weekly hours of meeting where we could also pass

this knowledge on to those who come. I believe the first step is to encourage young people to come here and help them realize that a good life is lived close to nature, not locked away in an apartment. Happiness comes from contact with nature and friendship between people, like it can be between you and me, much more than chasing a paycheck you don't enjoy."



WISH: new families, renewed island life, traditions and crafts

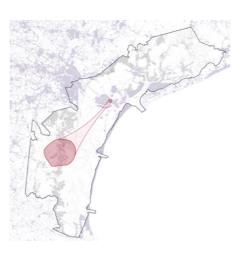
#### Margherita

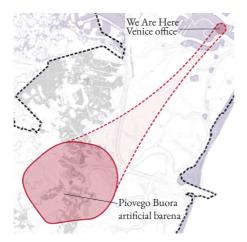
**Category**: researcher, organization, environmental activism

#### Relationship of will:

"Hello, my name is Margherita Scapin, I am a researcher for the organization We Are Here Venice. We Are Here Venice is a non-profit organization based in Venice, founded in 2015, so today it has been active for ten years. Its main mission is to keep Venice a living city. By Venice we don't mean only the city around us, the urban city, but its intrinsic connection with the Lagoon ecosystem, the very system that has supported and enabled the city's continued existence over time. To carry out this mission, we have ecological restoration projects in the Venice Lagoon, specifically in the barene which are the wetland areas of the Lagoon. We focus on the ecological restoration of the artificial barene, which are mostly located in the central Lagoon. They are artificial because they are saltmarshes that have been reconstructed over time, in the last thirty years or so in different

phases by public authorities, in order to maintain the morphology, the hydromorphology, of the Lagoon ecosystem. These morphological reconstructions, however, do not necessarily show a functioning ecological profile in relation to what the habitat of saltmarshes is, meaning coastal wetlands, because in some parts there is a lack of colonization by pioneer as well as perennial vegetation; there is also a lack of morphological features such as channels, ghebi and chiari, which are tidal pools, the internal network systems of the wetlands that allow for flooding and the exchange of nutrients within the system. So our activities are not only research into the reasons or drivers of environmental change, but also involve action, interventions increasingly referred to as nature-based solutions. The idea is not to create a solution for nature or through nature, but rather the possibility of working with nature and allowing it to remain resilient over time and to reactivate those processes that have made saltmarshes a habitat present in this territory for millennia."





#### Wish for the future:

My wish for the future is certainly to see a large-scale restoration of the barene. So, for me and for the organization I represent today, a change of mindset is also important: shifting from seeing the Lagoon primarily as a port and commercial infrastructure, since it has always been a transitional space from the sea to the mainland, and thus where the port was built, to no longer seeing it only as infrastructure but as an ecosystem, which is what it actually is. Without oversimplifying what it means to call something an ecosystem, it's clear that an ecosystem also needs people... So my idea of future is that this place continues to be lived in, both by those who are born here and by those who come from elsewhere, but with a different kind of intentionality and a different awareness. People often say to be lucky to have been born into this family or city, and yes, it is certainly a fortune to live and be here in this context, which, without human

intervention, would be very different, as it has been for centuries. In the same way, regenerating the idea that human intervention, human societies, can act in cooperation, in collaboration and in coherence and synergy with nature would, for me, be a major achievement of our work as an organization, but also as a citizen who lives the Lagoon every day.



WISH: ecological restoration, living and inhabited environment in synergy with nature

#### Lorenzo B.

**Category**: cooks cultural/artistic associationism

#### Relationship of will:

"I studied design and gastronomy, and from that the idea was born to bring the two practices together, a sort of attempt to integrate the various aspects of my research: the search for ingredients, but also the use of food as a cultural tool for interpreting and transforming the landscape. The main hub of my activity is in the Dolomites, home to the Prometheus Open Food Lab. Then in 2020, I moved to Venice, bringing with me that entire set of experiences and tools for critically reading the landscape. I began to observe the Lagoon through that lens, looking for potential ingredients, for edible elements that are not culturally codified as food, especially in the marginal environments of the Lagoon. That's when I began focusing mainly on the barene (salt marshes), on their ecological and ecosystemic role, but also on their historical and cultural value. I

discovered these plants, starting with salicornia, the most well-known, which I had already used in cooking. In what I call the horizon of perception of local plural cultures we tend to see Venice as the cultural center and the rest as background or periphery. But the Lagoon is home to many different cultures, with overlapping histories; it is in fact polycentric. And so I began to see, even through the lens of my practice, these plants as a potential tool for renegotiating our relationship with these environments, and for imagining a new paradigm for managing the landscape, particularly the barene, which I realized are completely disconnected from local cultures and from the broader perception of the environment and the role they play. These plants don't grow only in the areas we now consider natural and that are under protection, but also in agricultural zones, land that once was farmland, or still is, but is increasingly affected by saltwater intrusion, the so-called cuneo salino. This salinization puts pressure on conventional crops, and this opens up a dual opportunity: on the one hand, the chance to





introduce into these areas plants that otherwise we wouldn't be able to bring into the gastronomic culture, thereby ensuring a supply; and on the other, to convert these lands, offering a new agricultural perspective with crops that are either already adapted or naturally better suited to climate change and the altered conditions of the soil. Right now, we have a nursery in Cavallino Treporti with plants we've collected in the wild, aiming to select and preserve local genetic biodiversity. It's serving as a base to eventually bring these species into the fields and give new purpose to abandoned or underproductive land. We also have a small experimental plot in Sant'Erasmo, where we'll be planting in the coming weeks..."

#### Wish for the future:

To try imagining new uses, new structures, including legal ones, in order to understand what role [the barene and halophytic plants] might play in the future, also as tools for climate change adaptation and as activators of a new or different relationship... different simply because we've forgotten it, or because we haven't looked at other contexts, contexts we often dismiss due to our western cultural and economic mindset. But there are alternative models, and there's also the possibility that a renewed or different interaction with these spaces could generate new tools for landscape design and projection, tools that are more resilient in the face of the changes we are currently witnessing.



WISH: new uses, different paradigm for landscape management

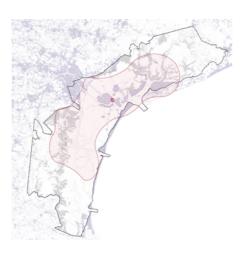
#### Marco

Category: fisher, author & artists

#### Relationship of will:

"My name is Marco Bravetti, I'm a cook and for the past five years I've been developing a project called Tocia! cucina e comunità (Tocia, cuisine and community). I was born and raised in Venice, and although I spent some time away from the city during my culinary journey, the moment I returned was also the moment I embraced an emotional and affective connection to this place. It was then that I became aware of the reasons behind my choice to pursue this work, something I'm passionate about, and how it could find a deeper, more specific meaning here rather than elsewhere. At the heart of this need to build a relationship with this place lies the origin of what is still today an ongoing experimental formulation of what Tocia! is as a project. It's a project I founded and initiated through my own practice as a cook and researcher, but which also needed to grow through the contribution and relationship with a community of people

living in Venice and the surrounding landscape. This is because my own lens of inquiry and practice has never felt a sense of self-sufficiency in the community in fully interpreting and shaping this relationship. For this reason, Tocia has always positioned itself as a space of hybridization of languages, of research, where culinary practice functions as a language in dialogue with other languages and practices. The goal is to build a broader community, a broader platform that can reflect this research through a more layered and complex form of expression than cooking itself. This intention found its natural place here in Venice because, if we consider cooking as a lens that reveals the many critical relationships between humans and their environment, then Venice becomes an extraordinary display of the extreme complexity of those relationships. It is suspended between the natural and the artificial, it presents a unique, peculiar idea of city and urban space, and it is immersed in a very particular natural landscape, one that is often overlooked by the city's own inhabitants. And yet this landscape





truly surrounds and has profoundly shaped Venice throughout its history. The feeling of disconnection from these relationships, and the possibility of reconstructing them through new perspectives, was certainly one of the key drivers behind the desire to solidify and carry forward Tocia! as a project."

#### Wish for the Future:

"In my view, the Lagoon is also, in a way, an utopian space, a space where there's an ongoing tension between a human desire to govern the transformation of the landscape, which unfolds as a consequence of human choices, strategies and interventions, and the reality that not everything is under human control. The desire, which we try to nurture through our kind of practices and research, by suggesting new imaginaries, is for a deeper alignment with the need to listen and to relate to needs that are not solely human or rooted in an extractive gaze on the landscape. It's about trying to understand how the issue of conservation and preservation

also holds a value that goes beyond our own human needs. So I would say that my main wish is that, within the community inhabiting this place, there can be a growing and deepening capacity to listen to those other kinds of needs.."



WISH: a community capable of listening to the needs of the Lagoon



#### **VENICE LAGOON: A WATER BODY**

#### Framing: the Lagoon as a subject of rights

This chapter introduces the main lens through which the design phase of this thesis will take shape: the recognition of the Venice Lagoon as a subject of rights. In contrast to traditional forms of environmental protection, that often result fragmented, technocratic and insufficient, a framework based on the concept of rights of nature offers a radically different perspective that challenges human-centered legal and spatial paradigms. Rather than seeing the Lagoon merely as an object to be managed, restored or protected, this chapter explores what it could mean to recognize it as a legal subject, acknowledging its ecological and cultural relevance. Framing the Lagoon as a subject of rights allows us to move beyond the idea of nature as a resource to be managed and introduces a relational perspective, in which human and more-than-human components are understood as co-constitutive parts of a shared living system. This shift in perspective should not only be conceptual or legal, but also spatial and symbolic and it should have profound implications for the way we imagine, plan and inhabit territories.

The chapter is divided into three parts. First, it outlines the philosophical and legal foundations of the Rights of nature idea, tracing key moments and ideas that have shaped this emerging field. Second, it explains why this approach was chosen for the Venice Lagoon, not as a product of analysis, but as a principled departure from conventional planning logics. Finally, it clarifies how the thesis engages with this framework through two experimental outputs, a process and a project, that together test how rights might manifest in space.

#### Rights of nature

From objects to subjects: a philosophical reframing

As outlined in Marco Belpoliti's introduction to Federico Luisetti's essay Nonhuman Subjects: An Ecology of Earth-Beings (2023), Italo Calvino, in his short story Essere Pietra (1981), gives voice to a stone. "I am a stone," it declares, asserting a presence that resists human comprehension as it reflects on its own identity, its origins and its form. This imaginative exercise reveals the ontological abyss that separates the human from the non-human, an abyss that is not just linguistic, but also epistemological and juridical. The modern Western worldview has long maintained this division, assigning nature to the realm of the inert, the passive, the object. This ontological separation has underpinned centuries of extractivism, commodification and environmental destruction. In his essay, Luisetti (2023) aims precisely to challenge the hegemony of the living human being as the core of Western thought, arguing that to truly engage with ecological reality we must reconsider even the mineral as

a possible subject. Extending personhood to rivers, rocks and ecosystems means disrupting the human monopoly on rights, and this is possible because legal subjectivity is not an ontological truth, but a historical and cultural construction. In this light, the rights of nature become a conceptual and legal tool for rethinking Western ontology, opening it to a relational and interspecies vision of the world.

# A legal and political history of the rights of nature

The theoretical foundation of the rights of nature was laid by legal scholar Christopher Stone in his seminal essay *Should Trees Have Standing?* (1972). He proposed that natural entities like rivers and forests should be granted legal standing, with guardians appointed to represent their interests. Stone's proposal paved the way for the development of ecological jurisprudence. Building on Stone's ideas, philosophers and sociologists such as Bruno Latour further expanded the concept. With his notion of the Parliament of Things (1991),

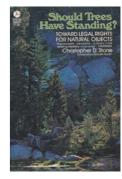


fig. 10/01 STONE, C. D. (1972). SHOULD TREES HAVE STANDING?: TOWARD LEGAL RIGHTS FOR NATURAL OR LECTS



fig. 10/02 LUISETTI, F. (2023). NONHUMAN SUBJECTS: AN ECOLOGY OF EARTH-BEINGS [ITALIAN VERSION ESSE-RE PIETRA ECOLOGIA DI UN MONDO MINERALE EDITED BY WETLANDS]



fig. 10/03 DE TOLEDO, C. (2021). LE FLEUVE QUI VOULAIT ÉCRIRE: LES AUDITIONS DU PARLEMENT DE LOIRE

Latour envisioned a radical reform of political representation in which both human and non-human actors share agency. This vision inspired real-world experiments, such as the Parlement de la Loire (de Toledo, 2021), where artists, scientists and citizens collaboratively imagined the river speaking in the first person. These initiatives challenge existing governance frameworks and offer new models for representing ecological voices

This shift also marks a critical turn away from traditional environmental law. As articulated in the Seed of Siena document (Global Alliance for the Rights of Nature, 2022), current legal systems fail to protect biodiversity because they treat nature as property. The privatization, commodification and financialization of ecosystems only deepen environmental degradation. Rights of nature, by contrast, propose a transition from anthropocentric environmental law to ecocentric ecological law, from control to care.

## Legal personhood in practice: global precedents

Over the past two decades, the theory of the rights of nature has increasingly translated into concrete legal action across multiple parts of the world, especially in relation to rivers, lagoons and other water bodies.

In 2008, Ecuador became the first country to enshrine the rights of nature (de-

#### **Rights of Nature:**

**Recognition** that the **Earth** and all **her** ecosystems are living beings with **inalienable rights**: **to exist**, **to live free of cruel treatment**, **to maintain vital processes** necessary for the harmonious balance that supports all life.

#### **Legal entity:**

A **lawful** or **legally standing** association, corporation, partnership, proprietorship, trust, or individual. Has legal capacity to (1) **enter into agreements or contracts**, (2) **assume obligations**, (3) incur and pay debts, (4) **sue and be sued in its own right**, and (5) **be accountable for illegal activities** 

## Legal personhood:

An **entity** given the **legal rights** and **duties** of a **juristic person.** 

Global Alliance for the Rights of Nature (GARN)

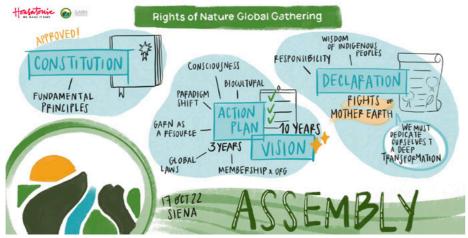


fig. 10/04 GLOBAL ALLIANCE FOR THE RIGHTS OF NATURE (GARN) GLOBAL GATHERING - LA CERTOSA DI PONTIGNA-NO, SIENA, ITALY OCTOBER 15-17, 2022

rechos de la naturaleza) in its constitution, recognizing Pacha Mama's right to the integral respect of her existence and to the regeneration of her vital cycles. This constitutional innovation laid the groundwork for the Universal Declaration of the Rights of Mother Earth, proclaimed at the 2010 World People's Conference on Climate Change in Cochabamba and promoted by the Global Alliance for the Rights of Nature (GARN) as a foundation for an ecocentric international legal framework.

A landmark case came in 2017, when New Zealand recognized the Whanganui River as a legal person, the first river in the world to be granted legal personality, with the now-iconic statement: "I am the River and the River is me." This recognition, the result of long-standing Māori advocacy, established a precedent of co-governance between state authorities and indigenous guardians. Similar developments occurred in Colombia in 2016, when the Atrato River was granted legal personhood by the Constitutional Court. The decision introduced the concept of biocultural rights, establishing mixed representation structures that included both state institutions and local communities. In India, in 2017, courts recognized the legal personality of the Ganges and Yamuna rivers, though the decision was later suspended, highlighting the legal and political complexities of implementation (Burgers & den Outer, 2021).

In Europe, the case of the Mar Menor lagoon in Spain marks a turning point. After decades of ecological decline, citizens mobilized to grant the lagoon legal status. Ley 19/2022 officially recognized the Mar Menor as a legal subject, citing the need to "expand our responsibilities toward the natural environment" and to grant "rights to natural entities" as a response to 21st-century ecological crises. This recognition was not merely symbolic: it emerged from a participatory process, culminating in a legally binding Charter of Rights, a key model for the project developed in this thesis. These examples demonstrate that legal

These examples demonstrate that legal personhood for nature is not only possible and politically transformative, but can also be achieved in a relatively short time frame, integrating ecological, cultural, and affective dimensions of place.

# RIGHTS OF NATURE AND DESCRIPTION OF THE PROPERTY OF THE PROPE

 $_{\rm fig.\ 10/05}$  Burgers, L., & Den Outer, J. (2021). Compen DIUM RIGHTS OF NATURE—CASE STUDIES FROM SIX CONTINENTS

#### CHAPTER SEVEN Rights of nature

Article 71. Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes.

All persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature. To enforce and interpret these rights, the principles set forth in the Constitution shall be observed, as succeeding.

The State shall give incentives to natural persons and legal entities and to communities to protect nature and to promote respect for all the elements comprising an ecosystem.

Article 72. Nature has the right to be restored. This restoration shall be apart from the obligation of the State and natural persons or legal entities to compensate individuals and communities that depend on affected natural extense.

fig. 10/06 ECUADOR'S 2008 CONSTITUTION (ENGLISH TRANSLATION) - Source: insideclimatenews.org



fig. 10/07 ATRATO RIVER - Source: garn.org



g. 10/08 WHANGANUI RIVER - Source: doc.govt.nz



fig. 10/09 MAR MENOR (SENTINEL-2) - Source: datadista.com

#### Why this approach: a principled departure from conventional planning

The decision to use the rights of nature as the framework for this thesis was not the result of a linear design process. It did not emerge from the analytical phase as the most rational or feasible conclusion. Rather, it was a conscious choice made at the outset, a framework I decided to work within, a deliberate positioning, not a product. The first part of this research, that offers a historically grounded, interpretative reading of the Lagoon, tracing its morphologies, uses and systems of care and degradation, serves as a foundational lens through which a rights of nature framework for the future can be interpreted and contextualized in a gradual and logic progression in time (practices of care – natural form of protection > practices of degradation - no resistance - no protection > Venice Lagoon as a legal entity - new form of protection), but its purpose was never to determine the most appropriate or rational new form of protection for the Lagoon. The guiding question from the outset was not what is the best form of protection for the Lagoon?, but rather how could the recognition of legal personhood help protect it?

This choice reflects my personal values on one side, but also a dissatisfaction with the limits of conventional urban planning tools, which often feel too rigid and disconnected from the complexity of the places they aim to serve, especially those environments like the Venice Lagoon. In fact, this dimension is clearly tangible in the context of the Lagoon, where the local and supralocal governance landscape seems highly fragmented and ineffective. At the water body scale, territorial and sectoral plans certainly exist. As explored in Chapter 4, they range from international protection statuses such as UNESCO World Heritage and Ramsar wetlands, to regional and local schemes, yet these instruments tend to fail to address the systemic vulnerabilities of the Lagoon: they often overlap, conflict or remain ineffective due to lack of political coherence, under-resourced governance or bureaucratic inertia. This fragmentation results in a state of semi-permanent neglect: while formally protected, the Lagoon is functionally exposed to extractive pressures, infrastructural overreach and socio-cultural erosion.

It is in this context that I turned to the idea of the Lagoon as a legal entity, as a new hypothesis for a form of protection for the Venice Lagoon, and hopefully a new, finally effective, legal, spatial, cultural and symbolic ground for aligning functions and values. Framing the Lagoon as a subject of rights looks also like a way to re-politicize the question of environmental protection not by delegating it to technocratic management or external authorities, but by rooting it in civic intentionality (Anscombe, 1957), territorial agency (Ostrom, 1990) and

Current laws and policies cannot stop the loss of biodiversity or the poisoning of soils, lands, waters and air, because they are grounded in the fiction of the natural world as property or 'resources' for human desires. The privatization. commodification and legalized enslavement of Nature as human and corporate property, the phantom economy based on speculation rather than actual production and the financialization of Nature, further expedite the destruction of ecosystems and lives.

Seed of Siena Declaration - Global Alliance for the Rights of Nature (GARN) collective responsibility (Leopold, 1949). This is what led me to articulate the main research questions of this thesis:

How can the institution of a legal entity as a new form of protection for the Venice Lagoon safeguard it from environmental degradation and socio-cultural erosion by enabling new-old social and productive functions aligned with the rights of nature framework?

and two extra ones:

What could be the key steps needed to implement a legal entity for the Venice Lagoon?

What new-old social and productive functions, aligned with the new rights of nature framework, can be (re)introduced into the islands and Lagoon fabric to restore its value and ensure longterm socio-ecological sustainability?

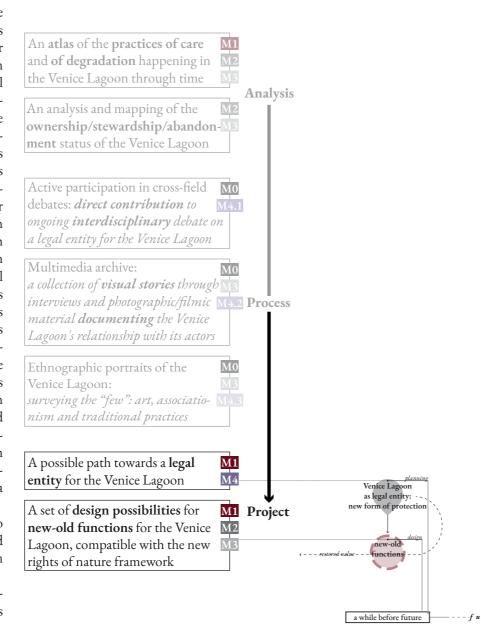
that this chapter will try to answer.

#### How the thesis works with this approach

This chapter marks the beginning of the project phase of the thesis, a space experimentation situated in what has been called a while before future: a near horizon in which the Venice Lagoon could be recognized as a subject of legal rights, or at least a time horizon in which something should change, a change that is needed as soon as possible. Rather than framing this recognition as a distant utopia, this work approaches it as a plausible and actionable outcome, especially when compared to other types of solutions, such as urban design or infrastructural interventions, which often appear entirely unfeasible within a timeframe in which they could still be effective. The urgency of the issues arising from the extractive dynamics to which the Lagoon is subjected, as described throughout this project, makes it essential to bring this timeframe as close as possible. Precedents such as the case of the Mar Menor Lagoon in Spain, which achieved legal personhood in less than a year through a broad participatory process, demonstrate that such a shift, when supported by civic engagement and political will, can become a reality within a short time span.

In this light, the thesis explores two complementary pathways: one rooted in process and participation and one in spatial imagination.

The first unfolds through an exploration of what could be the path towards



recognizing the Venice Lagoon as a legal entity, seeking to understand the key steps, actors, and conditions necessary for its implementation by using the experience carried out, as explained in the previous chapter, during the fieldwork with my "interdisciplinary interaction", so the engagement and collaboration with figures from other fields in the ongoing debate on a legal entity for the Venice Lagoon that is bringing to a draft for a Manifesto for the Rights of the Venice Lagoon. This output, the first of the "project" phase of the thesis answers to the first of the two extra research questions highlighted above.

The second is a design investigation that tests how the recognition of the Lagoon's legal rights might manifest spatially. It does so by experimenting with the reconfiguration of selected functions across the Lagoon in line with a rights of nature framework and addresses the second extra question. Together, these two lines of inquiry form a response to the thesis' central research question, also highlighted before.

To date, most explorations of the rights of nature have remained within legal, artistic and symbolic domains. Yet, if the Lagoon is to be recognised as a subject with rights, it becomes essential to ask how those rights translate into forms, uses and practices in space. This project seeks to fill that gap, offering a first attempt to bridge the language of law and the tools of urbanism, to bring together

sign and word, space and right. It does so by testing how spatial design can support, embody, or even give shape to the rights of the Lagoon as declared in a possible Charter.

This chapter follows the one on relationships of will precisely because there is a logical connection between the two. Relationships of will are interpreted as the vector through which the recognition of legal personhood for the Venice Lagoon can become possible. Specifically, referring to the conceptual framework, they represent the kind of relationship that, when expressed spatially through forms of resistance, organization, and action, can lead to the establishment of this new form of protection. In conclusion, the recognition of the rights of nature should be not only a legal step but also a cultural, symbolic and spatial shift. They could offer a framework to rethink spatial practice, to re-anchor the design of space within a broader ecology of values, rights and interdependencies. To grant rights is to reframe a territory not only in terms of governance, but in terms of meaning and belonging. This perspective weaves together the various layers of this research, the fieldwork, the interdisciplinary engagement, the design, into a cohesive whole. What follows is an attempt to give shape to this ambition, first, by tracing a possible pathway toward legal recognition through collective authorship of a charter of rights, then, through a

spatial experiment testing how legal recognition could manifest and take form through the reimagination of social and productive functions across the Lagoon. Both outputs aim to bridge law and space to contribute an urbanistic lens to a growing global conversation.

# Prototyping the right to exist: an exploration of the possible path of the Venice Lagoon towards legal rights

#### A situated yet transferable path toward legal rights for the Venice Lagoon

What does it mean to prototype a right? In this section, the term prototype is deliberately used to describe a hybrid tool: halfway between the narrative of an ongoing process and the attempt to outline a replicable method, one that is itself shaped by similar experiences. In particular, it refers to a prototype of a pathway toward legal rights for the Venice Lagoon, which both acknowledges what is already happening in the context of the recognition of legal personhood and explores how this experience might be systematized into a shared and adaptable path toward legal recognition. Unlike a rigid protocol, a prototype is iterative, responsive and always in-themaking, emerging from the specific context and evolving over time. The aim is to make a participatory process that is still unfolding more visible, legible and communicable, one that could support other ecological entities seeking to be recognized as legal persons. Beyond this, it also represents the first concrete output of this thesis.

The case of the Venice Lagoon sits within a growing international movement for the rights of nature. Drawing inspiration from precedents such as the Mar Menor in Spain, it shows that legal personhood does not begin with legisla-

tion, but with relationships, desires and collective imagination. This chapter presents the early steps of a co-created pathway that brings together legal scholars, environmental activists, scientists, artists and local associations. It does so in the spirit of contributing to a broader conversation: How can a community prototype the right of a living ecosystem to exist?

# Mapping the actors and building the coalition

The participatory process that led to the drafting of the charter of the rights of the Venice Lagoon was initiated and supported by a constellation of actors spanning legal, academic, artistic and grassroots spheres. This convergence reflects the inherently hybrid nature of the rights of nature framework, which calls for a plural and interdisciplinary approach, as well as the one of the venetian context.

The initiative was catalyzed by Pietro Consolandi, an environmental researcher and activist founder of Barena Bianca Lagoon-based collective and already encountered in this thesis through the relationships of will, both in one of the ethnographic portraits and in the interviews. He is involved in multiple overlapping networks: IDRA (Iniziativa per i Diritti delle Reti Idriche - Initiative for the Rights of Water Networks),

NICHE (Center for Environmental Humanities at Ca' Foscari University), TBA21–Academy, through its Venice-based platform Ocean Space, and the Confluence of European Water Bodies, in which the Venice Lagoon is one of the participating "waters". Through his work across these platforms, Pietro Consolandi initiated contact with local associations, particularly Poveglia per Tutti, a key node in the archipelago of Lagoon-based civic organizations, and laid the groundwork for the first public assembly.

To support the process with a legal foundation, Silvia Bagni, Associate Professor of Comparative Law at the University of Bologna and expert in ecological constitutionalism, was invited to draft a first version of the Charter, collaborating with another legal scholar, Amilcare D'Andrea.

A core working group gradually formed around the document. Among its members was Alex Putzer, a legal researcher at NYU and contributor to both the Eco-Jurisprudence Monitor and the IUCN World Commission on Environmental Law, who had already been independently exploring legal strategies for the recognition of the Venice Lagoon as a subject of rights during his time as a visiting scholar at NICHE. Recognizing the convergence of efforts, he joined the initiative and helped con-

solidate the group. Other key contributors included Amalia Rossi, an anthropologist at Ca' Foscari University and member of IDRA, Katja Schechtner, an urbanist and researcher affiliated with MIT's Senseable City Lab and LCAU, temporarily based at Ca' Foscari, Mattia Favaretto, an activist from Poveglia per Tutti, Luca Cosentino, founder of the

grassroots project Wetlands and myself. Beyond the core group of promoters and organizers, the true strength of the process lies in the involvement of local associations that are actively supporting the initiative, bringing situated knowledge, ecological expertise and long-standing commitments to the defense of the Lagoon. Their role is illustrated in the

mapping alongside. The structure of the coalition reflects similar experiences elsewhere, most notably the Mar Menor campaign, where a diverse alliance of academics, legal experts, civil society organizations and local communities was instrumental in advancing the legal recognition of a body of water as a rights-bearing subject.

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the first of the second	Close your eyes, reconnect with your water
	for the water we fight for
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	-> community pot topether -> Draft of rights of Noture for the Venice
	lopan. The community will pot together in the april for an event
	to then nevise the dreaft and have several marths to work an
	them, to engage, to porticipate.
	-droft by professon from Bologna (Alex Putzen)
	- February: share with the associations
	- option: execut to pet together with the different associations
	30th of journay 2025: The Hapue - "Whose Ocean?" Assembly
	Confluence 2015 - NethorBonds 21st september - 25th september
	Laurie Bungers -> School of Law, University of the North Sea,
	expert in Rights of Nature
	Diplometic Suitcase
	> exibithion, collaborative piece, transming piece. Suitane with artiface
	from each noter body that can be exibithed arrand the world

fig. 10/10 NOTES FROM THE FIRST CONFLUENCE OF EUROPEAN WATER BODIES ONLINE MEETING ABOUT THE VENICE LAGOON PROCESS AND OTHER TOPICS

#### A prototype participatory process for legal recognition

In order to explore how a natural entity like the Venice Lagoon might acquire lewas initiated by the coalition of scholars, activists and local associations outlined

come individui che nelle formazioni sociali in cui si sviluppa la nostra identità

lepubblica di Venezia, di deviazione del corso dei fiumi Plave e Brenta per limitare il deposito di dimenti e proteggere così i canali e le bocche di porto, che rappresentavano il fondami

214

above. This process aimed not only to develop a situated charter of rights, but gal personhood, a participatory process also to test and prototype a pathway that could be adapted and replicated by other ecosystems. What follows is a

brief reconstruction of the steps taken so far, along with those planned for the near future, supported by a summary of objectives, key actors and outcomes for each stage.

#### Introducing the rights of nature concept to local actors

**Objective** Introduce the rights of nature framework and assess local interest and relevance

Actors Pietro Consolandi (IDRA, NICHE, TBA21-Academy), Poveglia per Tutti, Lagoon-based associations

**Output** Shared framing of the issue, interest in co-developing a draft Charter

The process began with a series of informal conversations and exchanges, culminating in an initial assembly with local associations in Novemto rights for the first time.

ber 2024. The aim was to introduce the concept of the rights of nature and explore its potential relevance for the Venice Lagoon. This early encounter laid the groundwork for a broader participatory effort by fostering a shared vocabulary and identifying common interests. The associations present were invited to consider the Lagoon not as a protected object but as a subject entitled

## **Drafting the Manifesto**

Objective Provide a legal and conceptual base for public discussion

Actors Silvia Bagni, Amilcare D'Andrea (University of Bologna), IDRA

**Output** First draft of the Manifesto for the Rights of the Venice Lagoon

Building on this momentum, a first version of the charter was commissioned to Silvia Bagni, Associate Professor of Comparative Law at the University of Bologna and an expert in ecological constitutionalism. Together with her colleague Amilcare D'Andrea, she developed a preliminary draft of a "Manifesto for the rights of the Venice Lagoon". This draft served as the foundational document for the participatory process, designed to be debated, amended and enriched by the local

ALL IMAGES (PHOTOS AND SCREENSHOTS) NOT OTHERWISE

fig. 10/11 POSTER OF THE EVENT - Source: unive.it

#### Verso una Carta dei Diritti della Laguna

7 aprile 2025 Ca' Bottacin, Aula B

Draft Manifesto for the Rights of the Venice Lagoon ★ ② ②
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#### First public assembly and collective feedback

**Objective** Gather reactions, edits and proposals on the draft charter from civil society. as well as listen, learn and engage in dialogue with similar initiatives

**Actors** Local associations and individual citizens from the Lagoon network, organizations from the inland area, Pietro Consolandi, Amanda Rossi and myself

**Output** Documented feedback to inform further development; activation of a broader working group; key takeaways from other experiences

DICHIARAZIONE DEI DIRITTI DEL LAGO DI GARDA

On April 7, 2025, a public assembly was held at Ca' Bottacin (hosted by NICHE, Ca' Foscari University) to collectively review and comment on the initial draft. Moderated by Pietro Consolandi and Amanda Rossi (IDRA), the assembly brought together dozens of associations and activists. and was structured around participatory readings and collective editing sessions. The event also provided an opportunity to hear from invited guests involved in similar processes, most notably the Comitato per i Diritti del Lago di Garda. who shared their experience in drafting the Manifesto dei Diritti del Lago di Garda.



fig. 10/12 FEDERATION FOR THE DECLARATION OF THE RIGHTS OF LAKE GARDA - Souce: https://radiondadurto.org

### Collaborative revision by a core group

**Objective** Integrate public feedback into a refined version of the Charter to be presented at the Biennale (step 5)

**Actors** Core working group: Silvia Bagni, Amilcare D'Andrea, Pietro Consolandi, Alex Putzer, Amalia Rossi, Katja Schechtner, Mattia Favaretto, Luca Cosentino and myself

Output Second version of the Manifesto for the Rights of the Venice Lagoon

Following the April 7 assembly, the core working group outlined above came together to integrate the collected feedback and advance the text. On April 30, an online session convened the group to finalize a revised version of the Manifesto, enriched with new principles and insights, ready for presentation in the next phase.

delle acque scambiate tra mare e laguna e, di conseguenza, la simmetria del trasporto di sedimenti CREDITED IN THIS CHAPTER WERE TAKEN BY THE AUTHOR entrata e in uscita: l'erosione dei fondati: l'abbassamento del suolo. Si tratta di processi ricollegabili

### **Public presentation at the Venice Biennale**

ted charter in a public, international setting and gather perspectives from experts

**Actors** Alex Putzer, Katja Schechtner and Amalia Rossi from the core group Panel members included: Venice Lagoon (Nature), Mitchell Joachim (Terreform ONE), Ren Yee (UNStudio), Francesca Tarroco (Ca' Foscari University, NICHE), Adelita Husni-Bey (TBA21), Elena Longhin (TU Delft, Urban Design), general public

Output Public acknowledgment of the Manifesto, insights and comments to be integrated into its further development

Objective Test and present the upda- On May 14, 2025, the revised draft of the Manifesto was publicly presented at the Venice Architecture Biennale. A panel featuring legal experts, designers and environmental scholars took place, with the Lagoon itself symbolically represented as a subject in the discussion. Organized by Alex Putzer and Katja Schechtner, the event marked a significant milestone in increasing the visibility and legitimacy of the initiative, situating it within a broader international network.





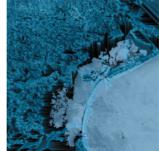






fig. 10/13-14 SOCIAL MEDIA POSTS ABOUT THE EVENT -Souce: Instagram, @nichevenicecf & @urbandesigntudelft

fig. 10/15-16-17 SHOTS OF THE MANIFESTO FOR THE RI-GHTS OF THE VENICE LAGOON EVENT AT THE VENICE ARCHITECTURE BIENNALE by Giovanni Pellegrini

### Steps 6-8 - Planned Next Phases

While the previous phases have already taken place, the next steps remain to be implemented and are considered essential for the full realization of the process. These upcoming steps highlight the "prototype" nature of the initiative: part concrete, part envisioned, they reflect both situated agency and a replicable structure.

### Series of meetings with the public and associations

**Objective** Continue to develop and revise the charter of rights, delving deeper to achieve a solid and widely shared version

**Actors** Core working group, local associations, broader public

**Output** Updated, publicly endorsed feedback and suggestions for the Charter; exploration of potential local governance and co-guardianship structures

### Finalization of the document

**Objective** Integrate collective input and finalize and prepare the charter for institutional engagement

**Actors** Core working group

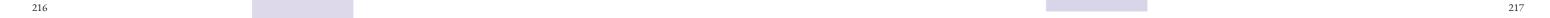
**Output** Final charter of the rights of the Venice Lagoon, ready for submission or formal recognition attempts

### Beginning of the legal process

Objective Initiate legal recognition of the Lagoon's rights, exploring administrative and legislative pathways

**Actors** Legal advocates, public administration, possibly broader citizen campaign

Output First legal steps toward institutionalizing the Lagoon's personhood and rights



### Introducing the Manifesto for the rights of the Venice Lagoon

The (draft) Manifesto for the Rights of the Venice Lagoon represents the first collective attempt to articulate the Lagoon's subjectivity, both legally and affectively, by proposing a new way of relating to and protecting this unique space, trying to provide a new form of effective protection for it. Still in the making, the charter functions as a pre-legal declaration: a living document that expresses, in juridical, ecological and emotional terms, a shared desire for recognition and opens a path toward meaningful institutional change.



fig. 10/18 PANEL AT THE MANIFESTO FOR THE RIGHTS OF THE VENICE LAGOON EVENT AT THE VENICE ARCHITECTURE BIENNALE by Giovanni Pellegrini

The Manifesto is structured in six sections:

- I. A preamble, which affirms the Lagoon's hybrid identity as a co-created socio-ecological system and the need for new legal paradigms to safeguard its existence
- II. The manifesto principles, a declaration of intent calling for recognition of the Lagoon as a subject of rights, grounded in the global movement for the rights of nature
- III. An outline of the Lagoon's multiple meanings, detailing its ecological, cultural and legal complexity, and the limitations of current governance frameworks
- IV. The rights of the Venice Lagoon, the core section which outlines eight proposed rights that reflect the Lagoon's unique condition and needs
- v. A proposal for a dynamic model of guardianship and representation to be able to speak for the Lagoon, inspired by existing examples such as the Mar Menor
- VI. A roadmap for the future steps to implement the rights, including advocacy, legal reform and community engagement

The eight proposed rights

- I. to legal personhood
- II. to ecological and sociocultural integrity
- III. to co-existence, co-evolution and co-creation
- v. to diversity of cohabitation
- v. to healthy water cycles and flows
- VI. to just and sustainable ecosocial economy
- VII. to participatory cogovernance
- VIII. to restoration, reparation and repair

form the heart of the Manifesto.

Just as importantly, the charter is and will be in its final version the outcome of a co-authored and interdisciplinary process, involving all the actors outlined earlier. While it is still in draft form, it already serves as a common ground for coordination, public dialogue and future legal action. Its real power lies not only in the language it proposes, but in the collective will that sustains it.

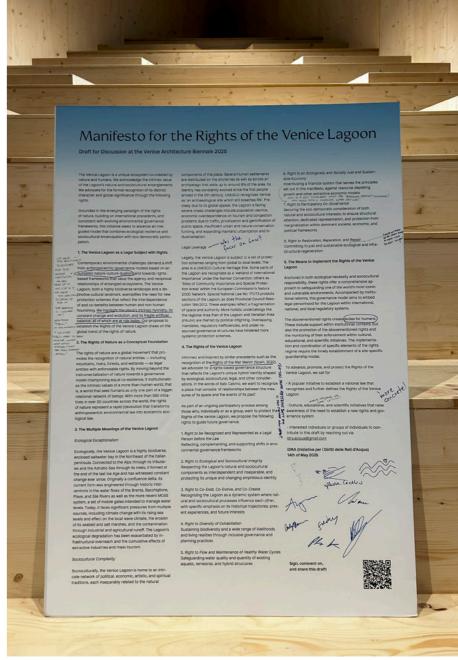


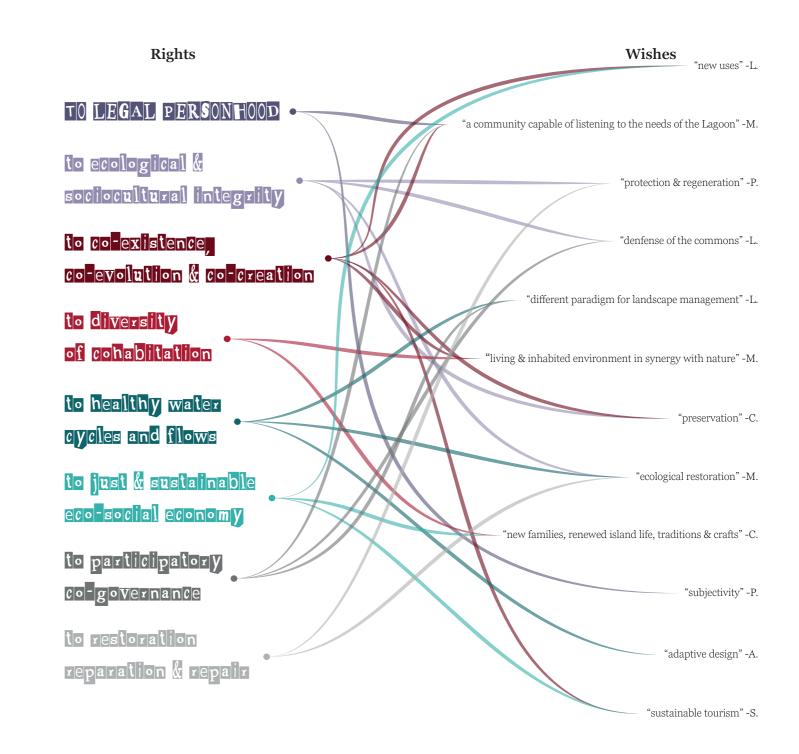
fig.  $_{10/19}$  DRAFT MANIFESTO FOR THE RIGHTS OF THE VENICE LAGOON PRESENTED AT THE VENICE ARCHITECTURE BIENNALE by Giovanni Pellegrini

### From will & wishes to rights

If the recognition of legal personhood for an ecosystem implies a transformation in how communities relate to it, not as an object to be managed, but as a subject to be cared for, then the question becomes: whose voice defines the rights of this subject? This thesis has argued that such recognition must emerge from a terrain of will: the same will shapes the relationships with the Lagoon of the subjects through whose actions it was possible to move toward the search for a new form of protection for the Lagoon in the first place.

The fieldwork conducted in the Venetian Lagoon, as recounted in the previous chapter Relationships of Will, has revealed a constellation of desires and hopes expressed by those who hold a relationship of will with the Lagoon, wishes spawning from forms of situated knowledge that reveal how people imagine the future of the Lagoon. These wishes are not the same as legal principles, but they provide a directional force pointing toward the kinds of futures the Lagoon deserves and its communities envision. From sustainable tourism to ecological restoration, from new families and island life to infrastructural innovation, from the defense of the commons to alternative paradigms of landscape management, they form a living archive of values and could be understood as the affective infrastructure of the charter, providing the kind of ground from which such a document should be constructed.

The participatory process toward the rights of the Lagoon has involved multiple actors, some of whom also appear in this thesis. Yet, this overlap is not what matters most. What matters is that those who engage in such processes, activists, residents, researchers, caretakers, are driven by a relationship of will. And it is precisely this will, not just institutional logic, that can inform the rights of the Lagoon. These connections listed in the scheme aside remain speculative, yet they highlight how juridical imagination can and should be nourished by social and emotional investment. The manifesto may eventually become a formal legal instrument, but it is already, in its current form, a translation of collective will into a language of rights.



### Designing with rights in mind

### An experimental scenario for the Venice Lagoon as a subject of rights

The legal recognition of the Venice Lagoon as a subject of rights opens up an experimental design space. This section in fact explores what it could mean, in practical terms, to design with rights in mind and presents a spatial and design experiment based on this idea. As explained earlier, the goal is to try 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, flourish and regenerate. Therefore, its spatial, ecological and social arrangements must reflect and respect this new status. In this context, the fact that the Venice Lagoon might be granted legal rights is not yet a prediction, although clearly the hope is that this outcome will one day be achieved, but rather a working hypothesis. It is a scenario to engage with in order to take steps toward what could happen in the future. The aim is not to prescribe definitive solutions but to test a method for understanding how such a legal transformation might be translated into design practice. How can the recognition of rights inform spatial decisions?

The Venice Lagoon now holds legal rights. But how does this manifest spatially?

### Methodology

To answer this question, the design experiment begins by mapping the existing functions in the Lagoon today, productive, social, extractive and commercial. Through this mapping, the project asks: are these functions compatible with a rights of nature framework? Can they be maintained, transformed, or should they be replaced? To explore these questions, the experiment then defines and maps the constitutive elements of the Lagoon as an entity with rights: its morphologies, water, flora, fauna and human communities. The Lagoon is not considered a monolithic entity, but a composition of interdependent elements, human and more-than-human. In this framework, the Lagoon's legal personhood is embodied by its parts and recognizing its rights means ensuring that the functions it hosts do not harm its constituent components. For these reasons, these elements are used as the basis for assessing spatial compatibility of functions. In fact, a matrix of compatibility and incompatibility is constructed out of the two sets, to compare each function with the elements of the Lagoon body. This matrix serves as a tool to critically evaluate whether each function supports or undermines the Lagoon's wellbeing, and to what extent it aligns with the rights attributed to it. It becomes a method to evaluate what function can stay, what should change

and what must go, not on the basis of economic return or political pressure, but on the basis of ecological and social compatibility with a living, legal Lagoon.

From this matrix, three functions were selected, one compatible with the Lagoon as a legal subject, one that needs transformation and one that appears incompatible. The design phase unfolds around these three functions and the spaces where they take place, each one addressed through a specific design principle: expand, transform, replace. The design principle and goals will be explained in the next sections.

It is important to say that this method is exploratory. It does not claim completeness or neutrality. The selection of functions for the matrix is not exhaustive, nor final, and the selection of the three functions to work with is arbitrary, based on personal interest and on the base of knowledge built up during the thesis: other combinations could be imagined and tested. What matters the most is the process: developing a framework that enables us to re-evaluate existing practices through a different lens.

This section will aim to answer the following research questions, the main one of the thesis plus a secondary one. How can the institution of a legal entity as a new form of protection for the Venice Lagoon safeguard it from ongoing environmental degradation and socio-cultural erosion by enabling new-old social and productive functions aligned with the rights of nature framework?

What new-old social and productive functions, aligned with the new rights of nature framework, can be (re)introduced into the islands and Lagoon fabric to restore its value and ensure long-term socio-ecological sustainability?

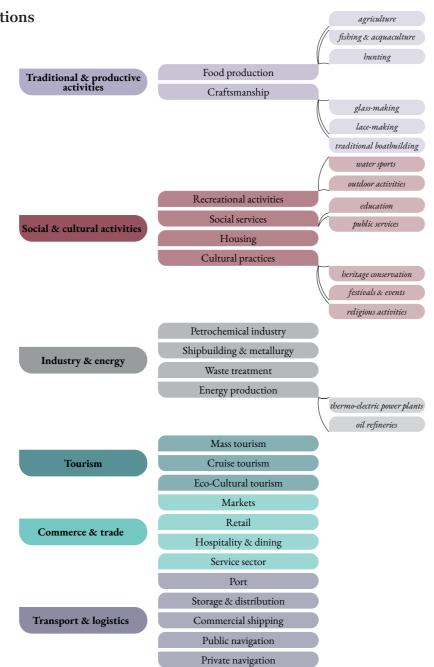


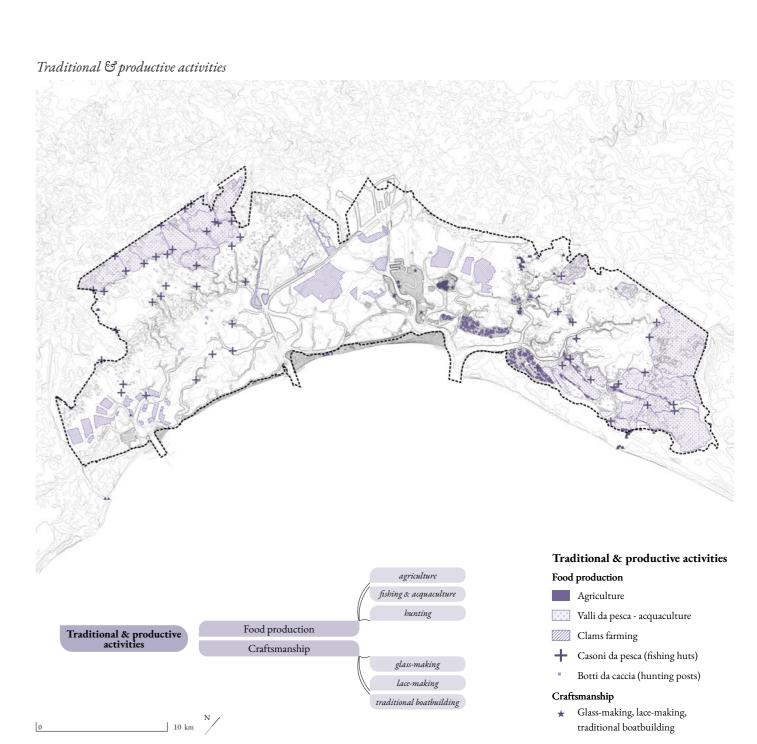
fig. 10/20 THE VENICE LAGOON, LOOKING TOWARD THE LIDO FROM THE BACAN SHORELINE ON SANT'ERASMO - DECEMBER 2024

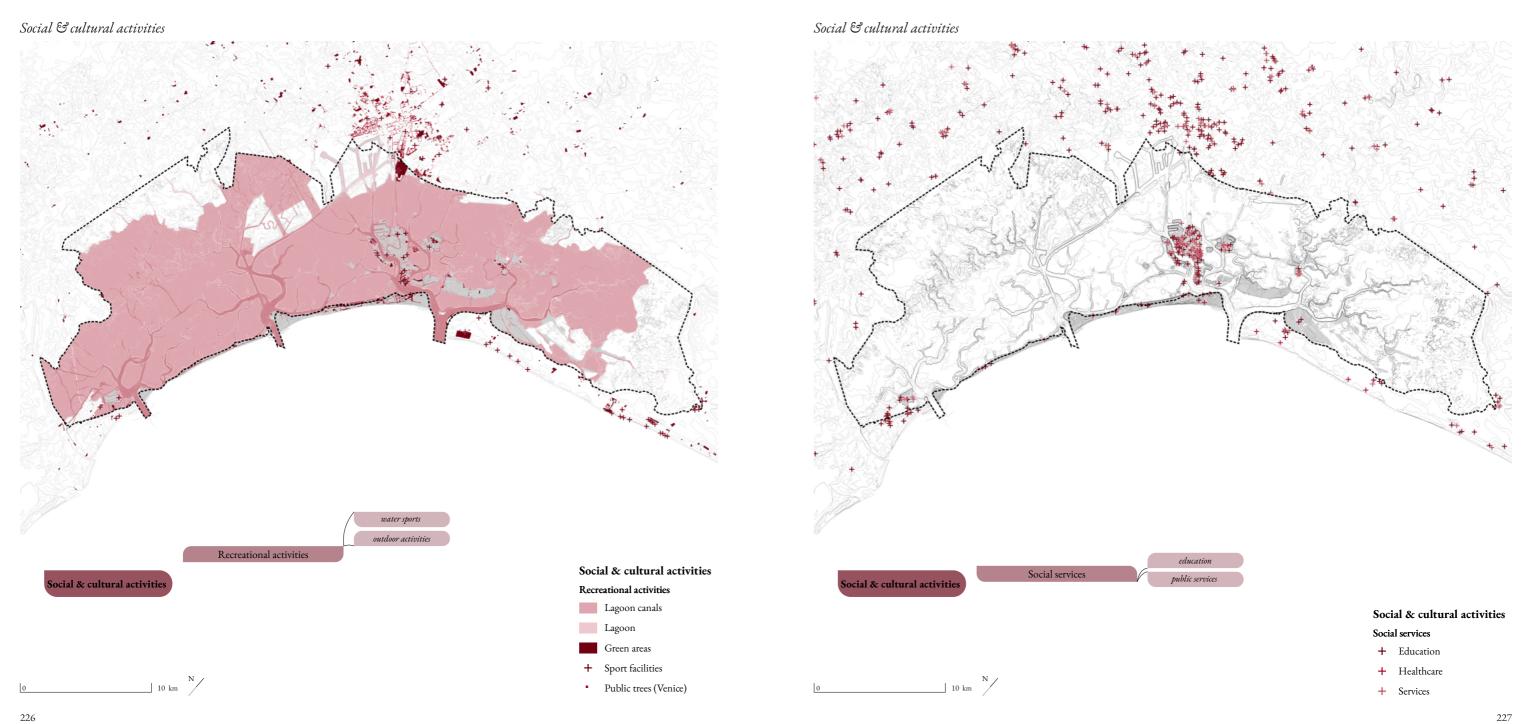
### Identification and mapping of functions

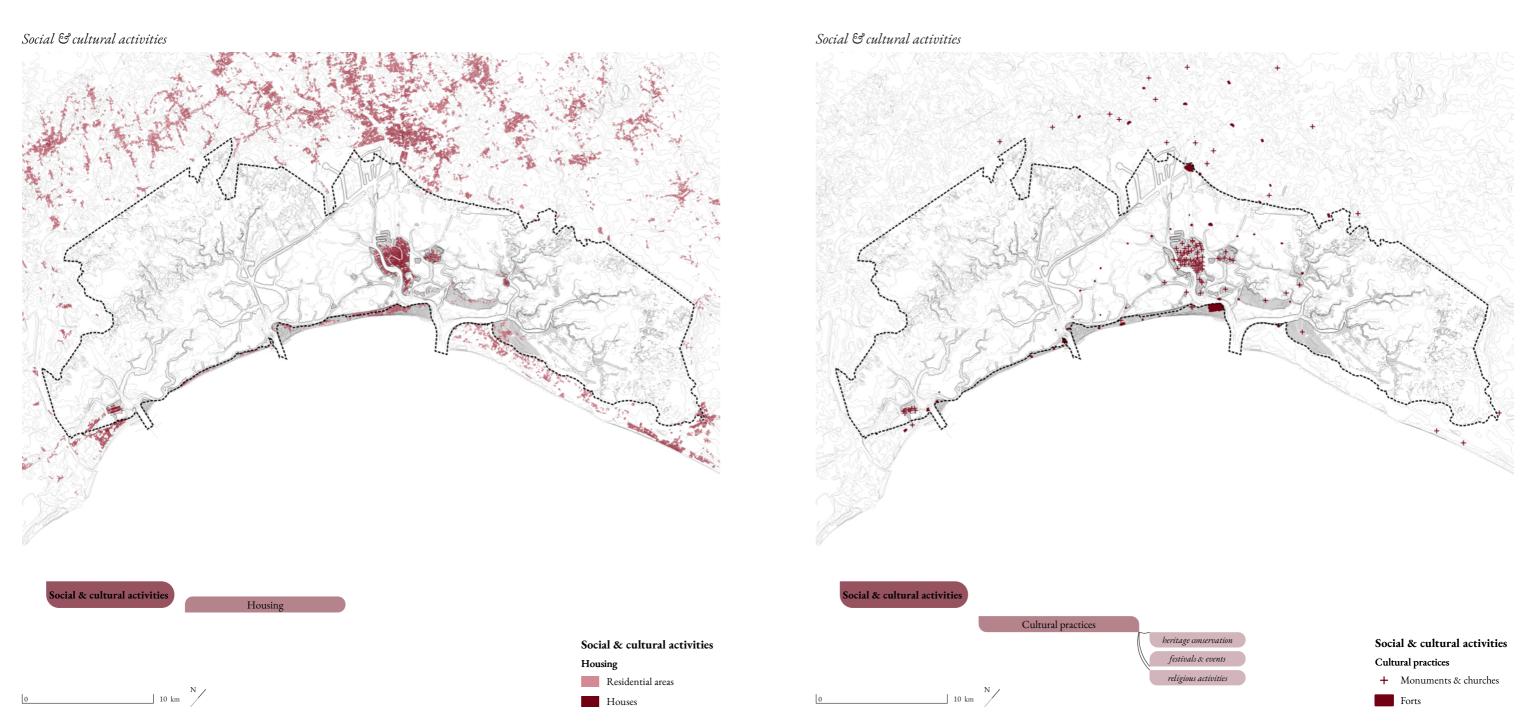
The starting point of this design experiment was the identification of the actual functions currently present in the Venice Lagoon and its islands. They represent what the Lagoon is used for today, how it is inhabited, occupied, traversed and exploited. To facilitate the analysis, these functions have been grouped into six broad domains:

- Traditional & Productive Activities: rooted in local knowledge and history.
- Social & Cultural Activities: esplicitano tutto ciò che gira attorno alla vita dei cittadini
- Industry & Energy: sectors linked to heavy infrastructure and extractive economies, particularly around Porto Marghera.
- Tourism: definitely central when talking about Venice.
- Commerce & Trade: sectors related to economic exchange and service provision.
- Transport & Logistics: related to port infrastructure and flows of goods and people



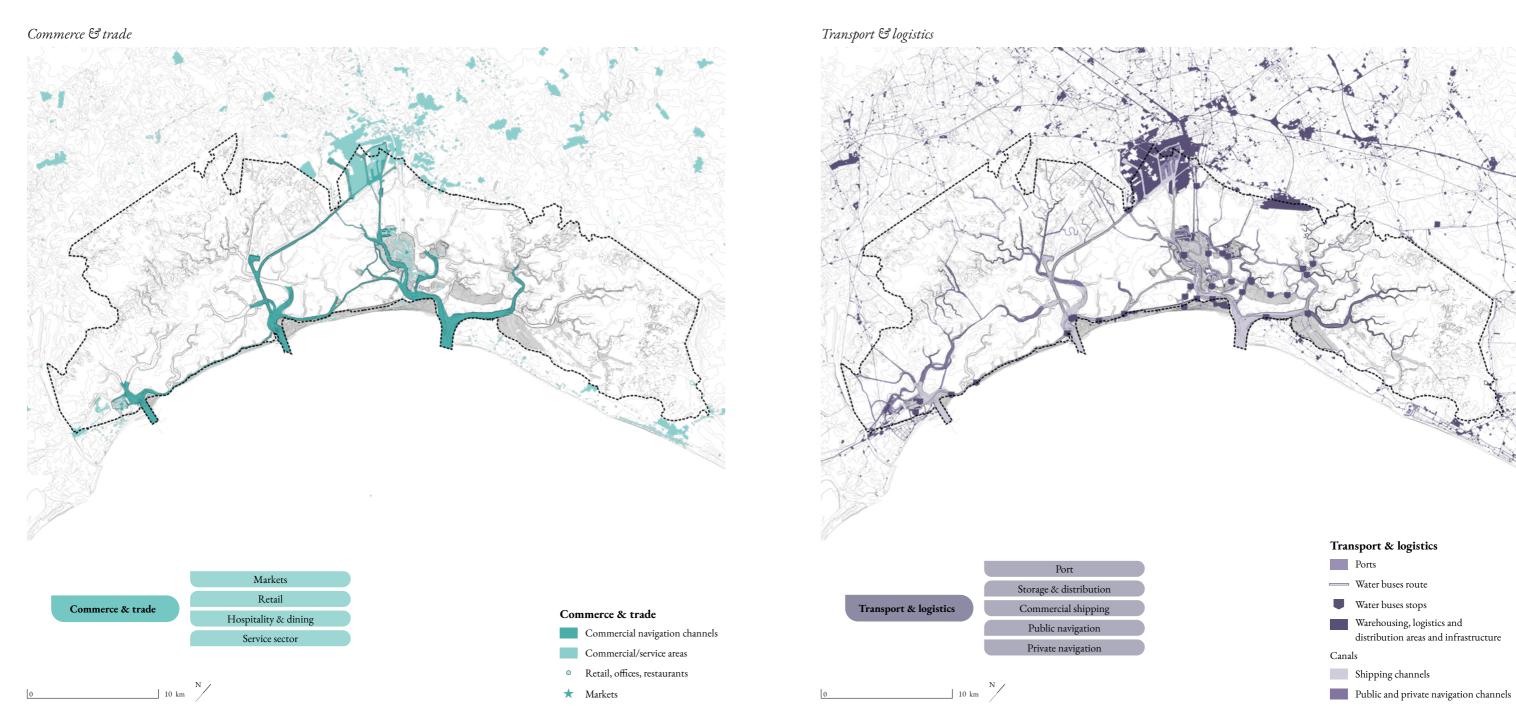










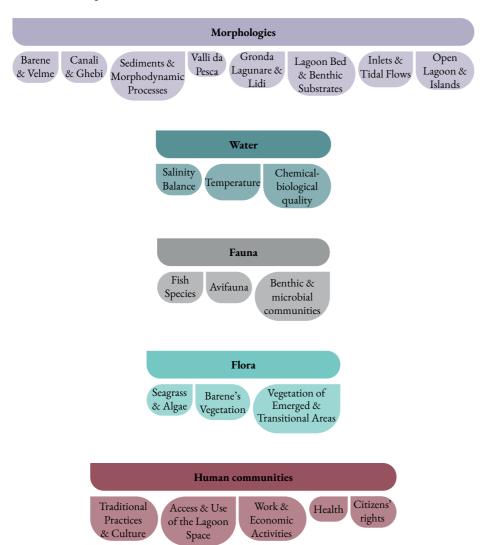


### Identification and mapping of the elements of the Lagoon

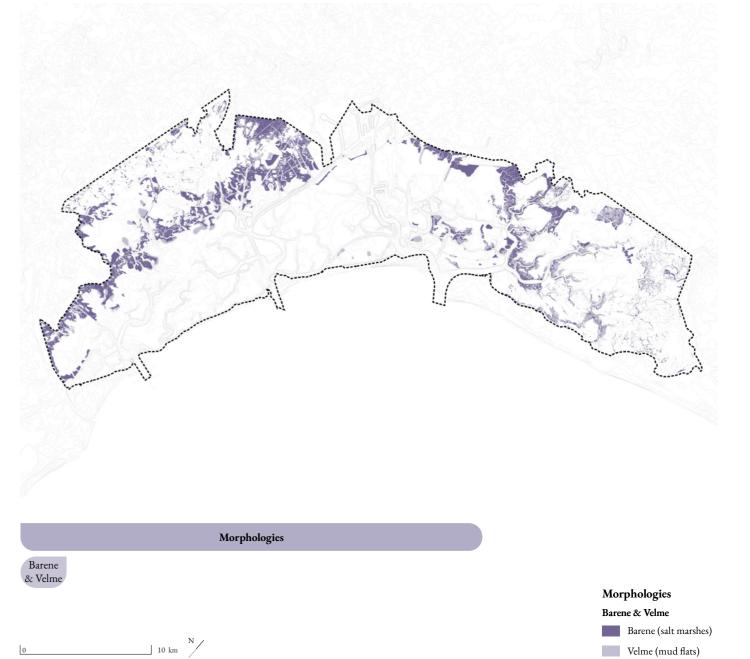
Recognizing the Venice Lagoon as a legal entity implies more than a symbolic gesture: it involves bringing the dimension of law to the Lagoon, acknowledging the Lagoon as a legal personality within the experiment through the redefinition of its identity as a living system composed of interrelated and interdependent elements. In order to assess the compatibility of existing functions with the rights of the Lagoon, it was first necessary to deconstruct and reconfigure what the Lagoon is, or more precisely, what it is made of. This step involved identifying the fundamental elements that constitute the Lagoon as a subject, from both ecological and socio-cultural perspectives. These elements were selected to represent the diversity and complexity of life within the Lagoon and its plural subjectivity is composed of:

- its morphologies, especially the features belonging to its hydrogeological dimension;
- its physical components, represented primarily by its main element, water;
- its non-human lifeforms, flora and fauna;
- its human dimension, with its practices and infrastructures.

Considering them in their multiplicity and relationality is what made possible to frame the Lagoon as a legal subject whose rights derive from the health and integrity of this composite whole: the mapping of these elements is not just a spatial act but a fundamental political and ethical one to determinate what matters in this process.

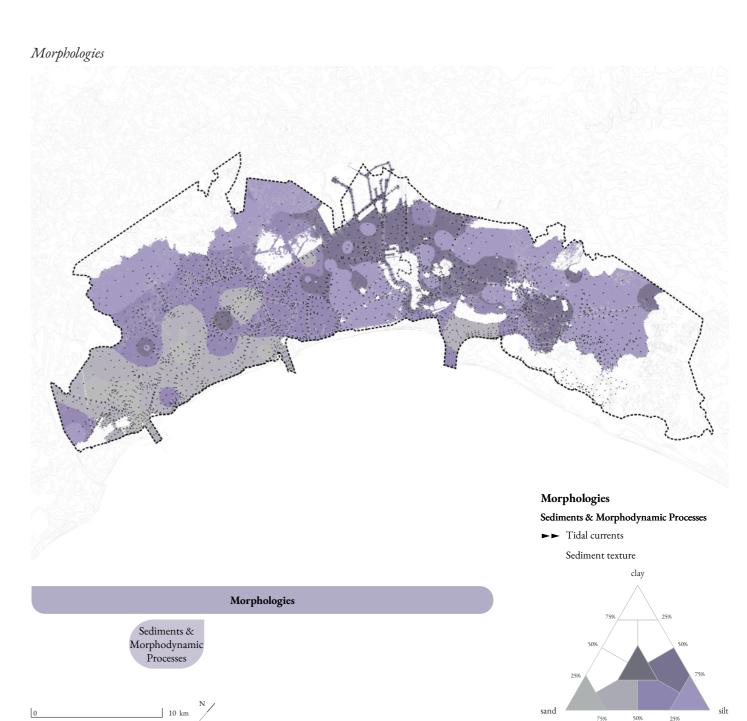






# Morphologies Morphologies Canali & Ghebi Morphologies Canali & Ghebi 10 km N

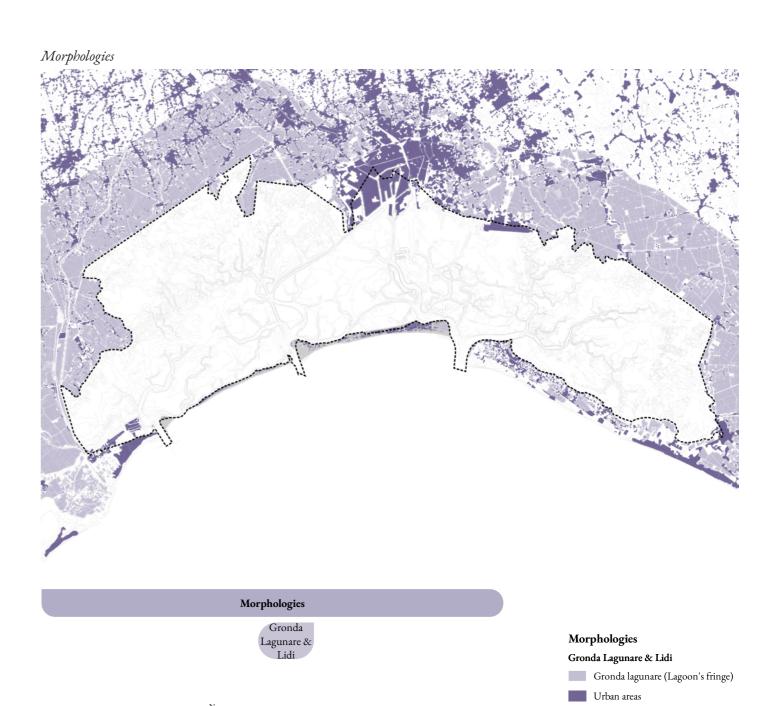
Lagoon canals, ghebi (tidal creeks)











Lidi (coastal strips)

## Morphologies





Lagoon Bed & Benthic Substrates



### Morphologies

### Lagoon bed & Benthic Substrates

Lagoon bed Banthic substrates (ind./mq)

22 - 145

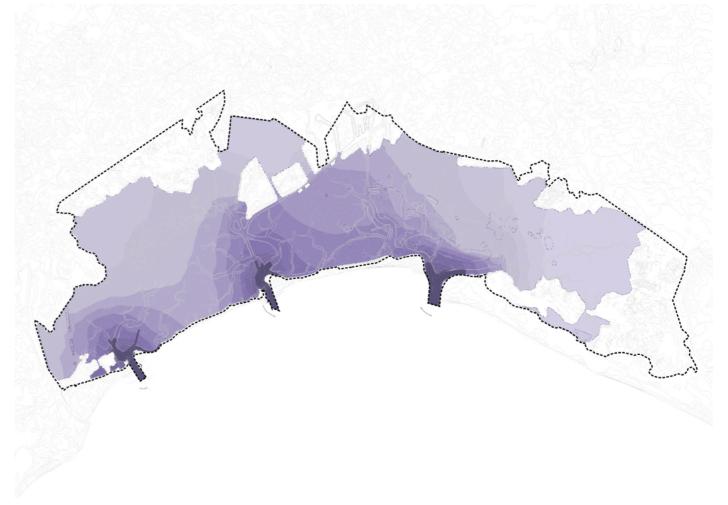
145 - 264

264 - 430

430 - 680

680 - 5013

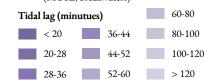
### Morphologies





### Inlets & Tidal Flows



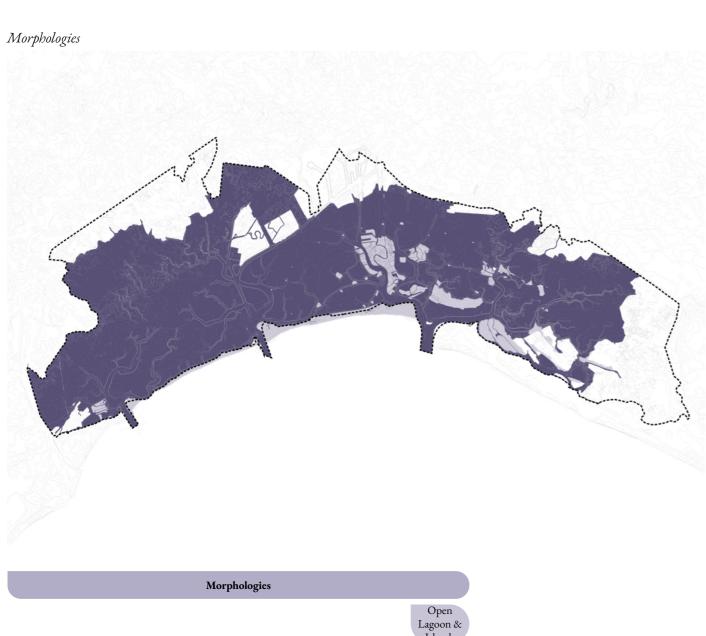


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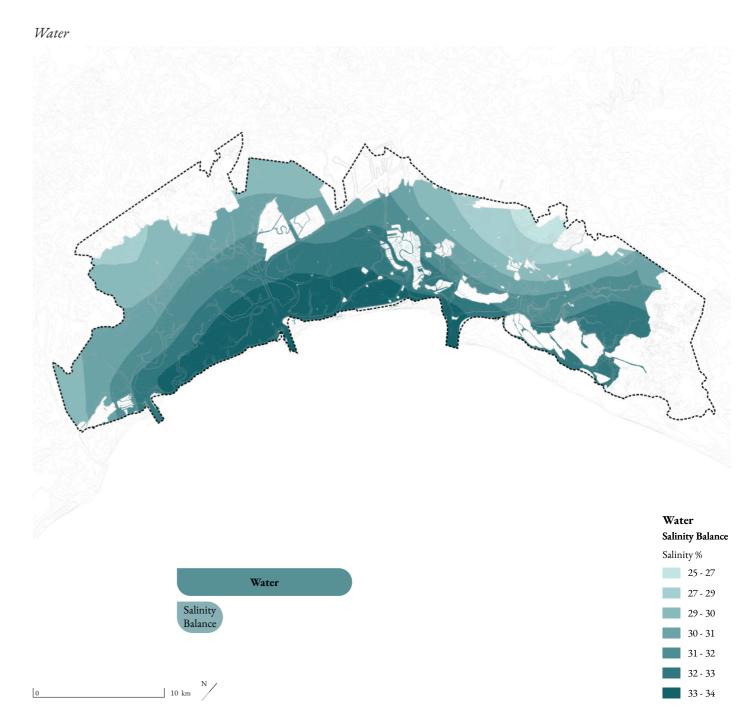
Morphologies

Inlets & Tidal Flows



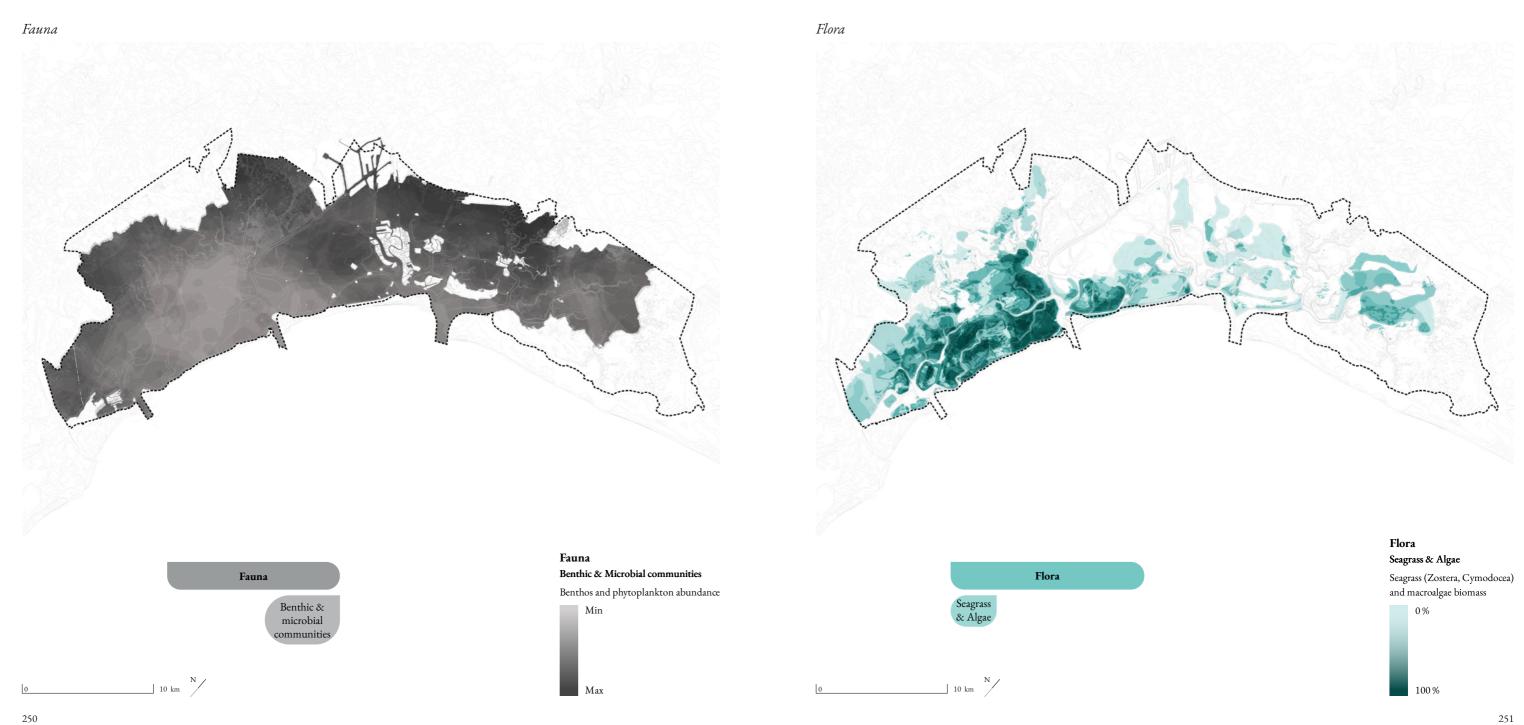


## Open Lagoon & Islands Morphologies Open Lagoon & Islands Open Lagoon 10 km N Islands











### Human communities



### Human communities

Traditional
Practices
& Culture

0 10 km

### Human communities Traditional Practices & Culture

- Agriculture
- Botti da caccia (hunting posts)
- **★** Craftsmanship
- ▲ Bilancioni (fishing lift nets)
- + Casoni da pesca (fishing huts)

Valli da pesca (fish farms)

### Human communities



### Human communities

Access & Use of the Lagoon Space

10 km N

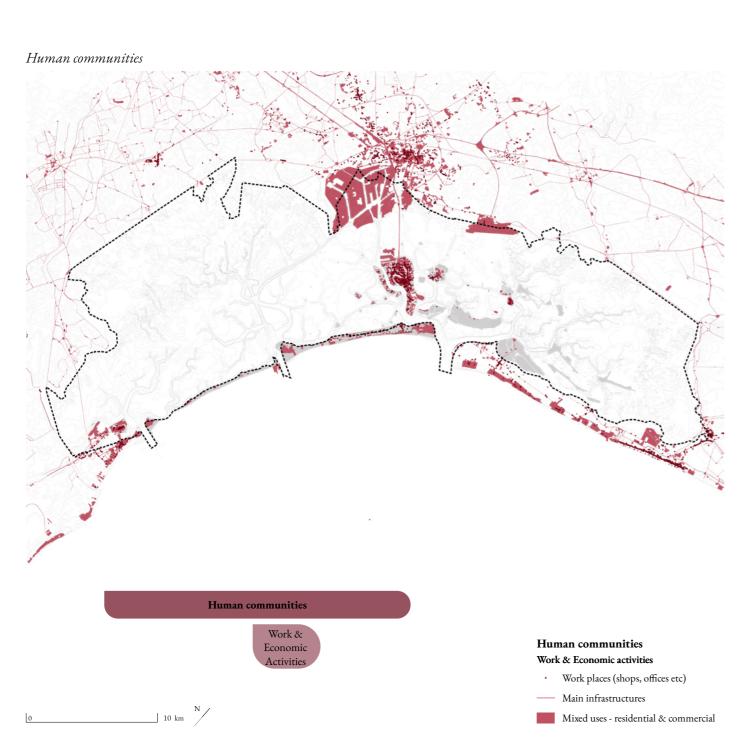
### Human communities Access & use of the Lagoon space

Lagoon canals

--- Water buses route

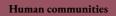
Water buses stops

Swimming areas









Health

### Human communities Health

Emissions (As, CO2, Cd, DCE-1,2, NH3, SOX, Zn, Cu, NOX, NO2, Ci)

0 10 km

### Human communities



### Human communities

Citizens' rights

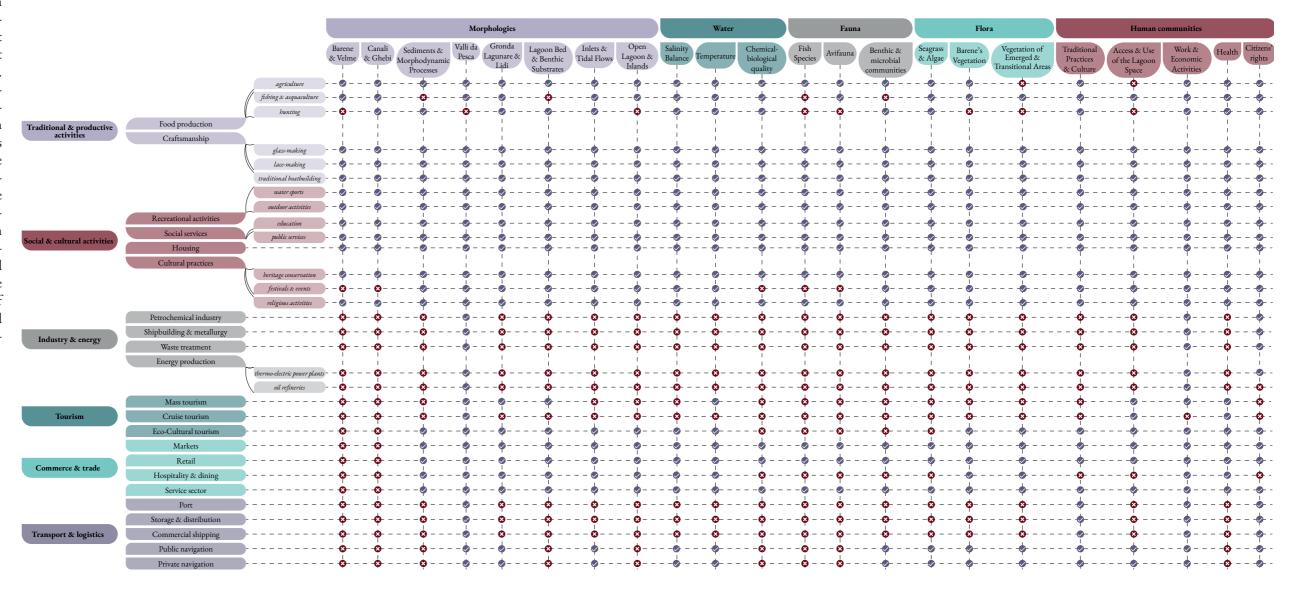
### Human communities Citizens' rights

- Education and public services
- + Healthcare
- Social housing

0 10 km

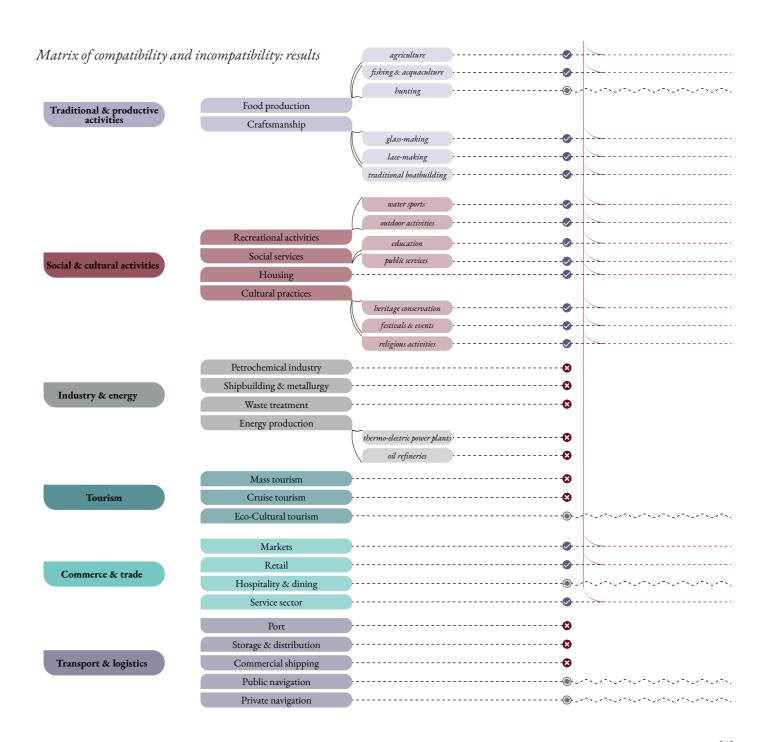
### Matrix of compatibility and incompatibility

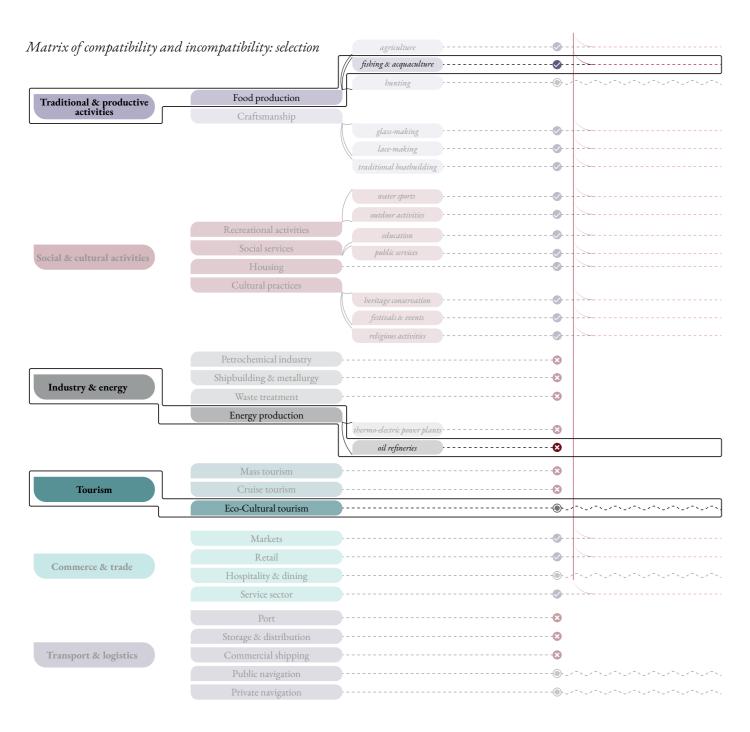
The matrix can be used as a tool to assess the compatibility of the different functions with the Lagoon as a legal entity: each function was evaluated in relation to each element based not on its economic viability, but asking whether it respects and supports the elements that make up the Lagoon's legal personality. This approach operationalizes the rights of nature by treating them as criteria in the evaluation and transformation of uses and activities. This matrix serves as a decision-making tool: based on the number of compatibilities and incompatibilities each function has with the different entities that constitute the Lagoon, it is possible to determine which of them can remain, which need transformation, and which must be phased out. Therefore, each intersection in the matrix reflects a qualitative judgment of compatibility. The evaluation was based on literature, interviews and field observations.



### From compatibility and incompatibility to design principles and goal

To explore how the recognition of the Venice Lagoon as a legal subject can inform spatial transformation, three existing functions from the matrix have been selected: one compatible, one requiring transformation and one incompatible with the rights of nature framework. This selection serves as the basis for the design phase, which will develop around these functions. The functions were chosen solely to test the experiment within the scope of this project. However, the ultimate purpose of the matrix is not to select specific functions to work on, but rather to identify the areas where intervention is needed to move toward a more respectful relationship with the Lagoon as a subject endowed with rights. For the experiment itself, any combination could have been chosen, but the decision primarily fell on functions belonging to the three different categories (compatible, transform, incompatible) to explore how different design principles could be applied. This choice was also influenced by a personal inclination to work on these themes, grounded in the body of knowledge developed throughout this research.





### Design principles

Delving into the design phase, each function becomes the subject of a specific design principle, shaped by an understanding of what the function is and where it could or should take place. These principles will guide the design decisions related to the function itself and the spaces it occupies. The three functions are:

- Fishing & Aquaculture: a practice belonging to the Traditional & productive activities group, identified as compatible. For this function the "what" is known, since the function is considered compatible; the challenge lies in defining "where" it could be expanded in ways that regenerate the Lagoon's ecology and economy, adding up to the places where it already exists today.

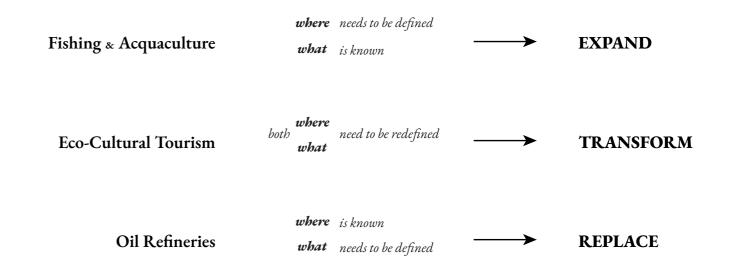
### $\rightarrow$ Expand

- Eco-Cultural Tourism: a function with regenerative potential, yet currently with problematic aspects in → Replace both its form and spatial distribution. Here, both "what" and "where" must be redefined to shift away from extractive models and foster relationships of care.
- → Transform

Oil Refineries: an industrial use clearly incompatible with the Lagoon as a living entity. The "where" is known, the industrial fringe of Porto Marghera, but the "what" must be reimagined entirely, since it will be assumed that this function will be phased out.

The application of these principles is guided by a central design question, a spatial and functional inquiry that will guide in answering the research questions:

HOW CAN THE DESIGN OF THESE FUNCTIONS AND/OR THE SPACES THEY OCCUPY RESTORE VALUE TO THE LAGOON ENVIRONMENT, PROMPTING COMMUNITIES AND INSTITUTIONS TO CARE FOR IT ONCE AGAIN, AND TAKE ACTION TO COUNTER SOCIO-ECOLOGICAL DEGRADATION AND SOCIO-CULTURAL EROSION?



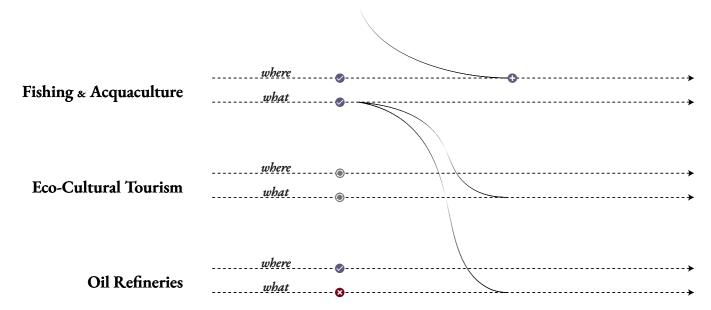
### Design goal

The three selected functions, fishing & aquaculture, eco-cultural tourism and oil refineries are not addressed as isolated cases but as parts of a systemic experiment. This decision is driven by design exploration, that would not be possible to reach by not imagining the possible futures of this three functions as a whole. As seen, each one is treated through a specific design principle, however, their development is not independent. Rather, the first, fishing & aquaculture, acts as a generative core for the others. As the only function already aligned

with the Lagoon's rights-based ontology, it provides a valuable framework of practices, relationships and economies grounded in local knowledge, non-extractive models and ecological reciprocity. This becomes the "what" that guides the transformation of eco-cultural tourism and the replacement of the oil industry. In this way, the experiment tests spatial scenarios and imagines a broader transition, where existing, compatible practices become seeds for systemic change. This systemic coherence is directed toward a shared design goal:

By aligning all interventions to this goal, the project seeks not only spatial feasibility, but long-term socio-ecological sustainability rooted in the rights of nature framework.

INTEGRATING A NEW ECONOMIC MODEL THAT REINVESTS VALUE IN THE VENICE LAGOON BY CREATING EMPLOYMENT OPPORTUNITIES AND FOSTERING INDEPENDENCE, OFFERS A SUSTAINABLE ALTERNATIVE TO EXTRACTIVE ECONOMIES THAT CONFLICT WITH THE IDEA OF THE LAGOON AS AN ENTITY WITH RIGHTS, AND ENSURES THE PROTECTION OF THE LAGOON'S ENVIRONMENT AND SOCIO-CULTURAL DIMENSION.



### Restoring value through design: three strategies for the Venice Lagoon

The following section translates the systemic vision introduced in the previous chapter into a spatial and functional plan. The Strategy Plan map presents the design experiment rooted in the acknowledgment of the Venice Lagoon as a living entity with rights and illustrates the interdependence between the three lines of intervention, fishing & aquaculture, eco-cultural tourism transformed into fishing tourism and the transformation of oil refineries into processing & marketing. Each strategy operates at a different scale and with distinct priorities, but they all stem from the same principle of value reinvestment and they all converge toward the same design goal: to re-establish socio-ecological reciprocity, create local employment opportunities and shift value creation from extractive to regenerative economies. To re-create this value the project deliberately turns its attention to the widespread system of abandonment that characterizes much of the Lagoon today and that has been explored throughout the whole research: forgotten islands, derelict casoni, underutilized fish valleys and neglected sections of

the Lagoon. These voids are not treated as marginal, but as potential platforms for reinvention. The three strategies are woven around a central arc formed by a chain of abandoned islands and military batteries stretching from north to south, Buel del Lovo, Batteria Carbonera, Batteria Tessera, Batteria Campalto, San Giorgio in Alga, Batteria Campana, Batteria ex Poveglia and Batteria Fisolo, now envisioned as a new infrastructural backbone for lagoon regeneration. The design strategies aim to restore ecological, social and symbolic value to these spaces, encouraging new forms of inhabitation and stewardship. What follows is a breakdown of the three strategies, starting from the generative one, fishing & aquaculture, and progressively expanding to its interconnected functions.



fig. 10/22 ABANDONED ISLANDS OF THE VENICE LAGOON

0 5 km

fig. 10/21 STRATEGY PLAN MAP FOR THE VENICE LAGOON

Fishing & Acquaculture Eco-Cultural Tourism -> Fishing tourism Oil Refineries -> Processing & Market Pellestrina

### Fishing & Acquaculture strategy

The first strategy focuses on restoring and expanding fishing and aquaculture, as the primary function already aligned with a rights of nature framework for the Lagoon. Historically embedded in the socio-ecological identity of especially Burano, Pellestrina and Chioggia, this sector now provides a framework for designing reciprocal, low-impact and community-based economies. The goal is not only to increase the ecological viability of fisheries but also to activate the social and spatial infrastructure necessary to support its growth and diversification.

1.1 Spatial foundations & key territories
The strategy begins with three of the
Lagoon historical fishing hubs, Chioggia in the south, Pellestrina in the center and Burano in the north, positioned
as the main anchors of this transition.
From these points, the plan maps the
existing and potential sites of Lagoon
fishing:

- Fixed-net fishing zones, clam farms and nurseries and active fish farms (valliculture)
- Abandoned fish farms, which are targeted for ecological and productive reactivation
- Casoni da pesca (fishing huts) and bilancioni (fishing lift nets), many of which have fallen into disuse due to the sector's recent decline
- Abandoned islands scattered across

the central Lagoon, envisioned as future facilities for fishing and aquaculture infrastructure

### 1.2 The dual regeneration arc

The spatial strategy is structured around a dual-pole regeneration arc that the map outlines across the central part of the Lagoon with two major directional flows originating from Pellestrina for the southern part and Burano for the northern. These flows extend toward the center of the Lagoon, tracing a sequence of abandoned islands and military batteries and intersecting with existing clam farming zones. Along this corridor, the project envisions a movement of fishers from north and south towards the center, converging toward the processing and tourism functions that are here located. Chioggia, while remaining more autonomous due to its strong connection with the Adriatic Sea and its active and already well-established fishing sector, is still included in the general strategy.

### 1.3 Innovating practices, adapting to change

Recognizing the transformation of the Lagoon's natural dynamics, such as the decline in fish biodiversity and the arrival of invasive species, the strategy promotes innovation in practices:

- Cultivation of algae and seagrasses
- Introduction of sustainable harve-

fig. 10/23 FISHING & ACQUACULTURE STRATEGY MAP

Fixed net fishing area 1.1

Clam farming 1.1

Calm nurseries 1.1

Active valli da pesca (acquaculture) 1.1

Abandoned valli da pesca (acquaculture)

Reactivate - 1.1

Bilancioni (fishing lift nets) 1.1

Active casoni da pesca (fishing huts) 1.1

Seaweed farms

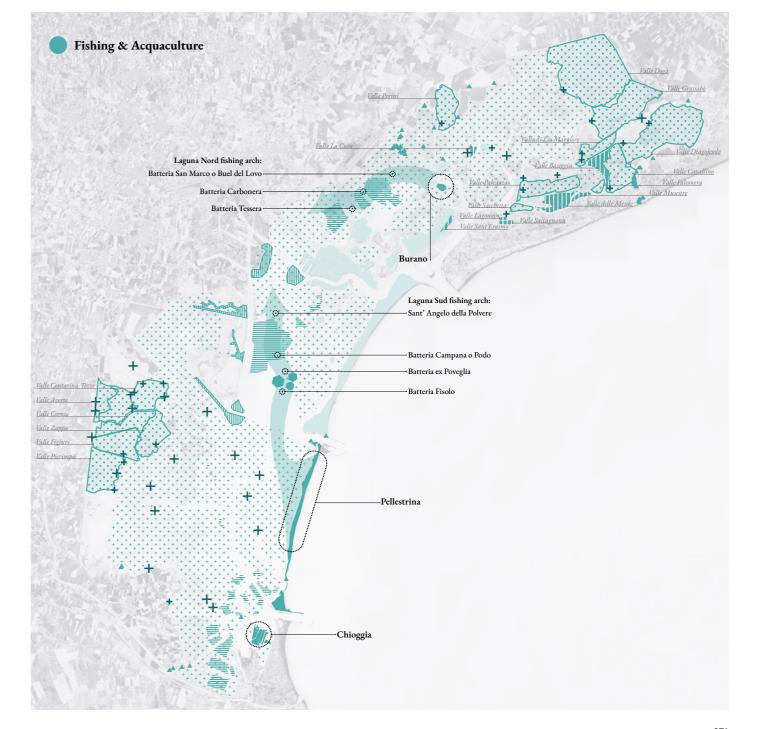
Introduce - 1.3

Abandoned casoni da pesca (fishing huts)

Reactivate - 1.4

Abandoned islands along central Lagoon arc

Facilities for fishing 1.2-1.4



sting for alien species like the blue crab, not only as a response to ecological pressures, but also by adapting them to traditional practices, such as the local moeca (soft-shell crabs) technique, thus embedding innovation within cultural continuity.

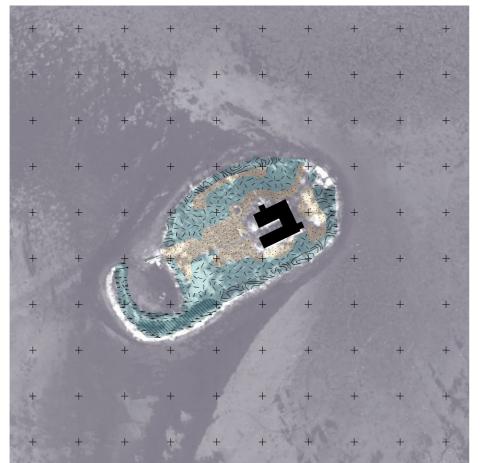
These activities respond not only to ecological challenges but also open new economic pathways by adapting the Lagoon productive capacity to contemporary conditions.

**1.4** Towards new fishing infrastructures
The densification of fishing-related activities calls for a renewed network of physical support. Among the proposed interventions:

- Restoration and reuse of abandoned casoni da pesca (fishing huts) as seasonal or permanent stations
- Recovery of the abandoned islands along the fishing arc to host new facilities for the fishing sector

These islands will be explored in the zoom-in section, with two pilot sites already selected: Batteria Fisolo in the south and Buel del Lovo in the north. They are imagined as nodal infrastructures within the renewed fishing landscape, serving both functional and symbolic roles in the reinvention of the Lagoon economy.

### Buel del Lovo



Abandoned garden and orchard, with regenerating tree-of-heaven and black locust

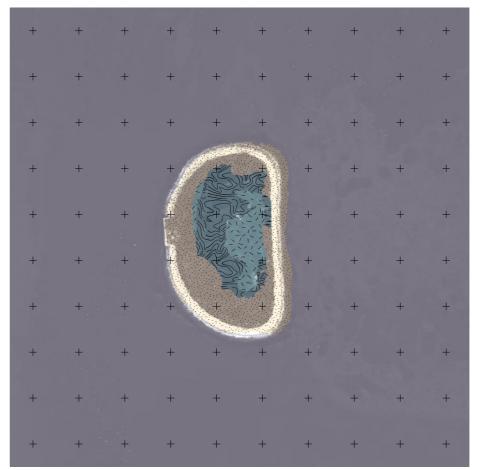
Pines and cypresses

Tameriks

Halophilic vegetation

Herbaceous vegetation and small shrubs, agropyron, artemisia and lolium communities

### Batteria Fisolo



25 m N Shores

Brambles and tamarisks

Halophilic vegetation

Ruderal pioneer herbaceous vegetation

### Zoom-in sites

To ground the fishing strategy spatially, two design experiments are proposed on abandoned military islands within the central Lagoon arc: Buel del Lovo and Batteria Fisolo. These sites are representative of a larger network of former fortifications built between 1796 and 1797 by the Austrian military to defend Venice from seaborne attacks. Originally constructed as wooden forts on piles over shallow waters and saltmarshes, the islands were later reinforced with earthwork ramparts, ammunition depots and barracks. During the 20th century, both islands underwent partial transformations but soon abandoned due to their remote location. Today, the islands feature ruined structures and open ground, colonized by pioneer and ruderal vegetation, herbaceous or shrubby, including halophytes, brambles, tamarisks, pine trees and cypresses. They still retain some traces of military geometry, masonry structures and artificial shoreline protections.

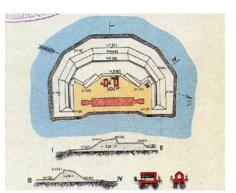
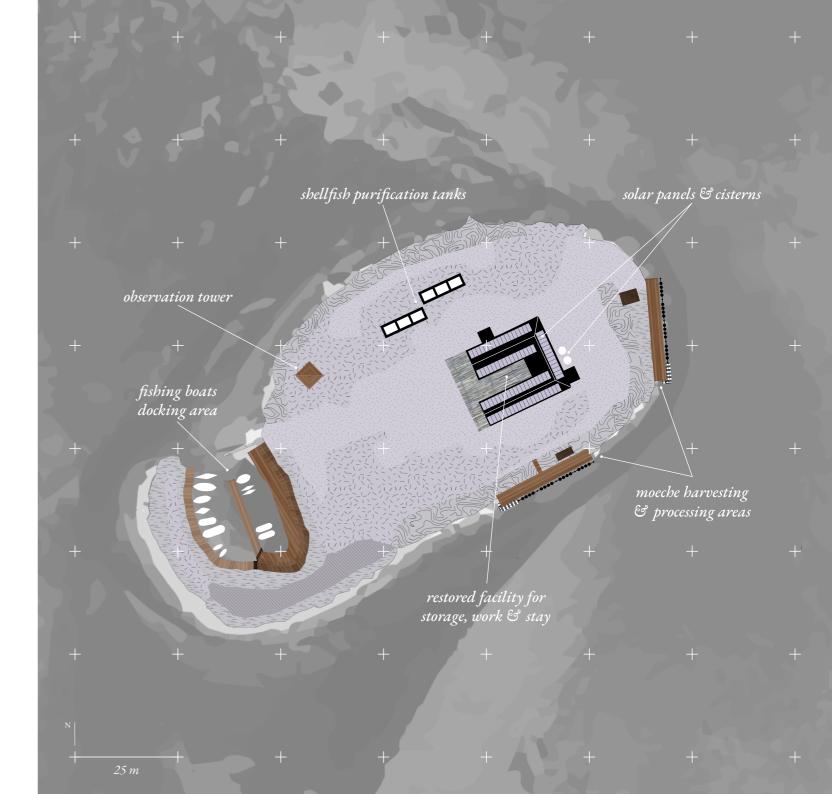


fig. 10/24 BATTERIE LAGUNARI - Source: Fortificazioni Militari & Artiglieria, Facebook, Jun. 19, 2020

### Interventions - Buel del Lovo: fishing base for the northern Lagoon

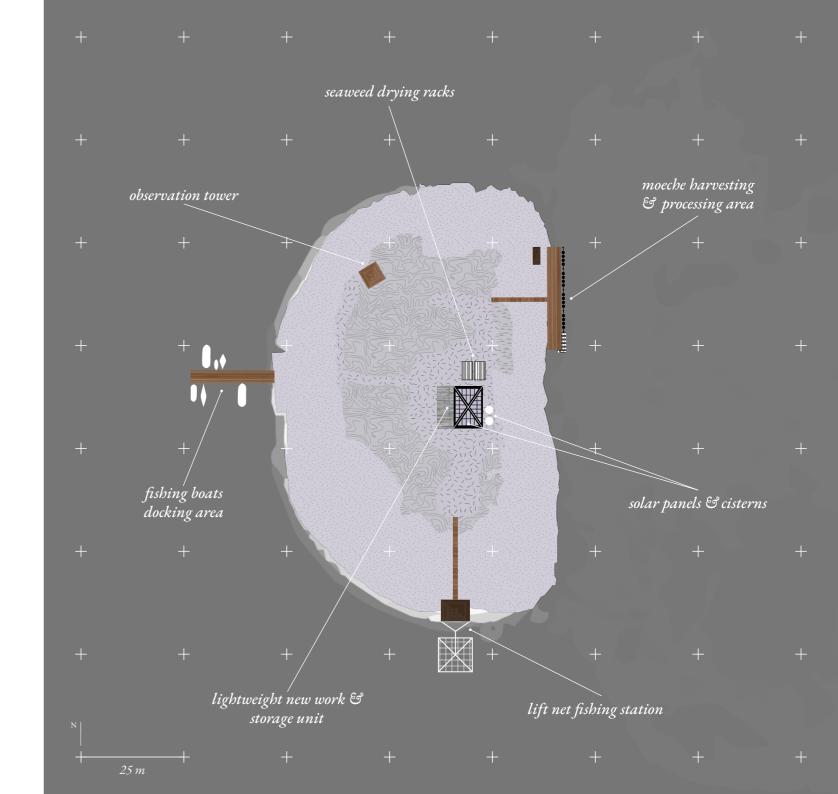
Buel del Lovo is the only battery island where the original powder magazines and part of the Austrian barracks still survive. The proposal builds upon these elements, combining conservation and reuse: the main existing building is restored, made energy-independent using solar panels and rainwater collection systems and provided with outdoor covered space. It serves multiple functions: equipment storage, workspace (for example, net-mending), and seasonal lodging, much like a modern casone. The natural inlet on the island's edge is reimagined as a wooden dock and multi-level landing system, allowing fishers to access the raised terrain. Adjacent to the shoreline, a shellfish purification area with dedicated tanks is introduced to support clam farming activities. On the island's edge, platforms for softshell crab harvesting (moeche), including for alien species like the blue crab, are equipped with traditional traps, tanks and handling equipment. A watchtower provides visibility across the central Lagoon and acts as a symbolic anchor.



### Interventions - Batteria Fisolo: a light fishing & aquaculture hub

Batteria Fisolo retains no architectural remains but preserves the outline of the former battery, visible in its geometry and embankments. Here, the proposal introduces new lightweight infrastructures anchored to the island's edge. A dock and watchtower are built to provide access and orientation. A newly constructed light unit with an extended canopy acts as both shelter and workspace for fishers, equipped with solar energy and rainwater harvesting systems.

Similar to Buel del Lovo, an area dedicated to soft-shell crab farming (moeche) is established with the necessary tools and aquatic equipment. The design also includes new drying racks and handling structures for algae, supporting the development of small-scale seaweed cultivation in connection with nearby aquaculture areas. The design also includes new drying racks and handling structures for algae, supporting the development nearby of a small-scale seaweed farm. Finally, a bilancione, a large-scale traditional fishing lift net, is constructed on the shoreline, giving the island a renewed purpose rooted in the Lagoon's fishing practices.



### Fishing tourism strategy

The second strategy transforms the form of eco-cultural tourism existing now in the Lagoon into a form of eco-cultural experience embedded in the fishing landscape, changing and expanding both the activities (what) and the spaces (where). By reframing this type of tourism as fishing tourism, the project aligns leisure with livelihood, activating a symbiotic relationship between visitors and local fishing communities and driving it away from the hotspots in Venice or on the main islands. This approach not only diversifies income for fishers but also expands public awareness of the Lagoon's ecological fragility and cultural depth.

### 2.1 Intertwining fishing and tourism

The strategy integrates tourism directly with the fishing sector, reinforcing mutual support between the two: where there is one, there could also be options for the other through hospitality, learning and immersive experiences. The goal is not to increase numbers, but to redistribute presence across the Lagoon and to reshape the logic of visitation through smaller-scale, context-sensitive and water-based itineraries. Pellestrina, Burano and Chioggia, the hubs identified in the fishing and aquaculture strategy, serve here as the arrival or/and starting points of these new tour routes, offering local hospitality and gastronomic experiences.

### 2.2 Rethinking access to the Lagoon

Unlike the concentrated tourist flows of

central Venice, the itineraries proposed

in this strategy are designed to decentralize access, creating a network of alternative gateways and routes across the Lagoon. The plan maps a wide range of potential access points, some conventional, others informal or currently underused, including fluvial entries navigable by boat, public water transport routes and land-based embarkation points along the Lagoon's edge. These access systems aim to distribute visitor pressure more evenly, reduce dependency on the Ponte della Libertà corridor, and reframe the Lagoon as a territory of equally distributed ecological and cultural value and interest. A sequence of routes is imagined, moving northward from Batteria Campalto and southward from San Giorgio in Alga, the two designated visitor centers placed at the edges of the fishing arc. These two islands act as portals into the Lagoon, offering orientation, storytelling and direct access to the central chain of islands and fishing zones and will be the zoom-ins of this strategy. As for Chioggia, in this strategy as well, while part of the network, operates more independently due to its direct land access and presence of facilities and infrastructures.

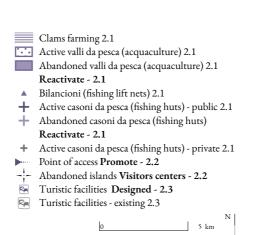
### **2.3** Distributed experiential hubs From the three main nodes, Burano,

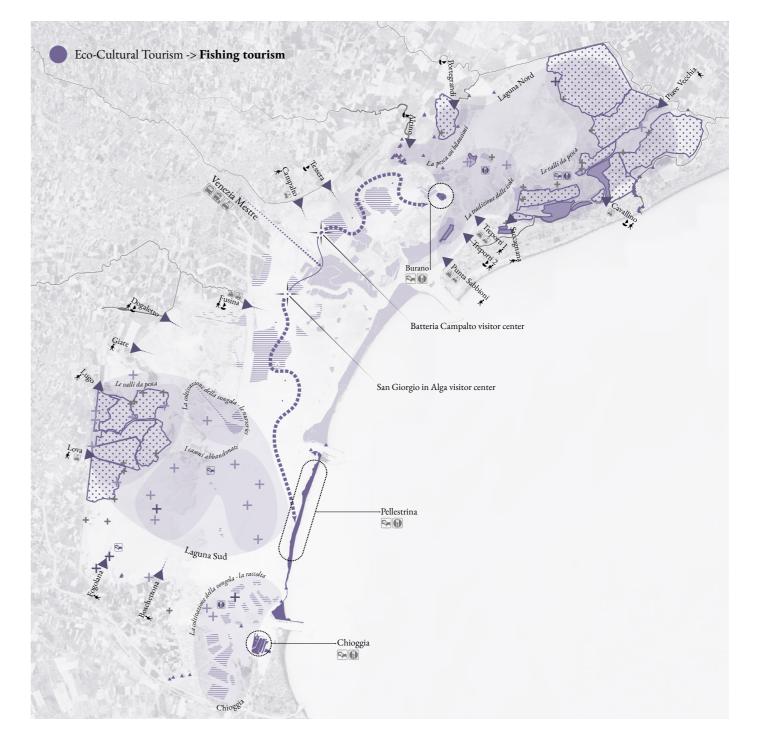
Pellestrina and Chioggia, emerge three sets of experiential hubs, each proposing different kinds of engagement with the Lagoon's fishing culture and environment through specific experiences.

### Laguna Nord (Burano):

1. "Le valli da pesca" | Fish farms – opportunities for immersive stays in reactivated casoni and scattered hospitality models (e.g. alberghi diffusi) and learning about the techniques and activities of the valliculture

2."La pesca coi bilancioni" | Fishing lift nets – slow travel experiences along the inner Lagoon edge between Portegrandi and Altino, accessible via the Dese and Sile rivers, characterized by





the presence of many bilancioni.

3."La tradizione delle isole" | Island traditions – a circuit through the northern islands (Sant'Erasmo, Torcello, Santa Cristina, La Cura, La Salina), where fishing and aquaculture remain embedded in daily life and built form of abandoned landscapes.

### Laguna Sud (Pellestrina):

1."Le valli da pesca" | Fish farms – echoing the northern one

2. "La coltivazione della vongola – le nurseries" | Clam nurseries – hands-on learning and guided observation of the early phases of clams farming

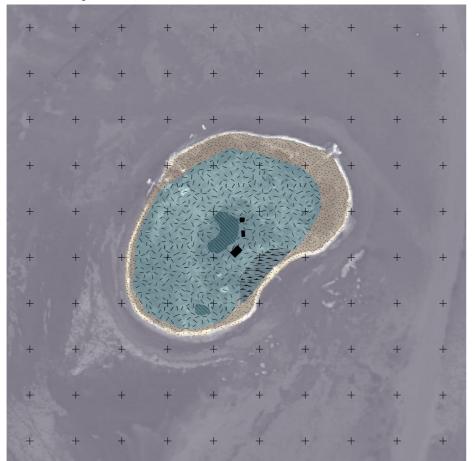
3."I casoni abbandonati" | Fishing huts – reactivation of abandoned casoni as overnight stays

### Chioggia:

1."La coltivazione della vongola – la raccolta" | Clam harvesting – guided experiences through the clam beds for harvesting phase

In addition to the new uses of abandoned casoni proposed throughout the Lagoon, some existing and publicly accessible ones, already in use and in good condition, can also be integrated into the fishing tourism network. These include, for instance, Casone Mille Campi, which could offer overnight stays, and various casoni in the Chioggia Lagoon that could be adapted as local food hubs, following the example of Casone da Sandro, where it is possible to eat local fresh fish.

### Batteria Campalto



50 m

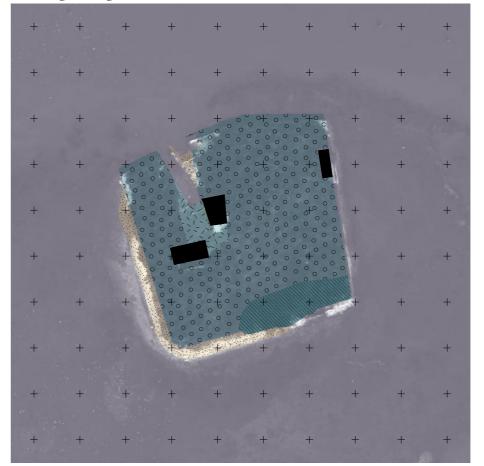
Trees, shrubs and brambles

Shores

Halophilic vegetation

Ruderal herbaceous vegetation

### San Giorgio in Alga



25 m

Small elm grove

Shores

Mature elder thicket, robinia stand

Herbaceous groundcover vegetation on ruins, probable abandoned orchard

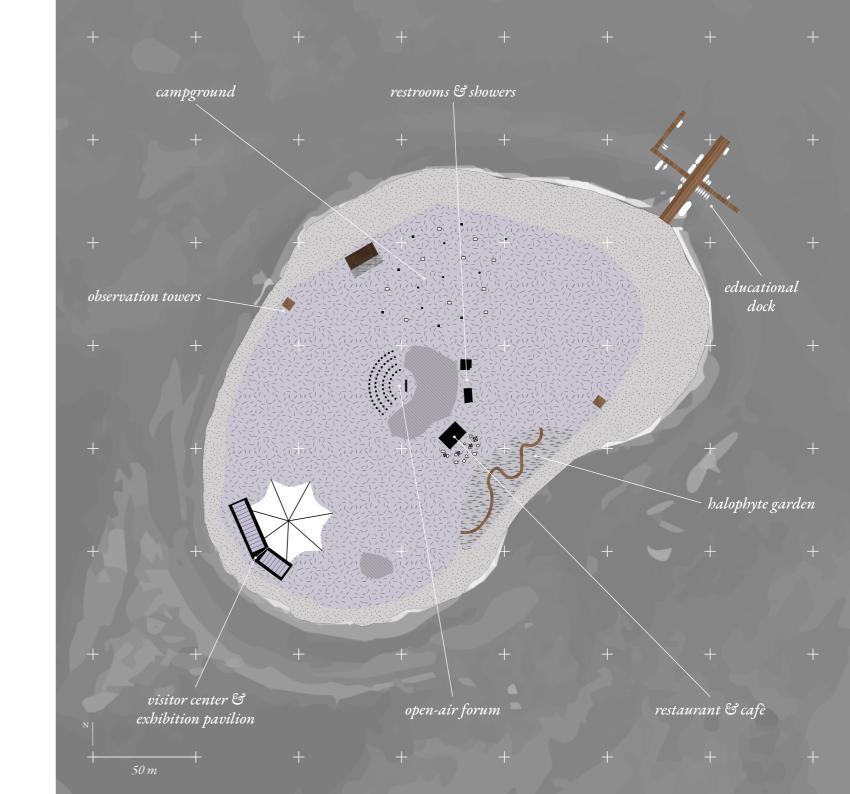
### Zoom-in sites

The second strategy is grounded spatially through two island interventions: Batteria Campalto and San Giorgio in Alga. They are very different in size, condition and past functions, both islands are reimagined as key components of a renewed infrastructure for fishing tourism. Batteria Campalto, located along the northern Lagoon edge near the mainland, was one of the Austrian batteries but was heavily altered during the 20th century due to landfill operations and shoreline reinforcement. The island today presents a flat, open topography with ruderal herbaceous vegetation and patches of larger shrubs and trees. Despite its transformations, the original bean-shaped geometry of the Austrian battery is still partially legible at the core of the island. In recent years, Campalto has been informally appropriated by local citizens, scout groups and kayak associations, who use it spontaneously as a recreational and exploratory site and have expressed interest in its rehabilitation. San Giorgio in Alga, by contrast, is a smaller and more enclosed island, with a dense vegetation and ruined architecture. Once a Benedictine monastery founded in the 11th century, the island was then militarized and bombed during WWII, before being definetly abandoned. Today, it is overgrown with a compact woodland of elm, elder and black locust (Robinia), scattered among ruins of monastic and military origin.

### Interventions - Batteria Campalto: gateway to the northern Lagoon

Batteria Campalto has undergone major transformations over time. Expanded and reshaped through landfill operations, it now features an extensive surface, informally used as a green space by residents. The project envisions the island as a gateway and visitor hub, an active interface between citizens, visitors, and the Lagoon's fishing culture. By formalizing and enhancing its current public use, the proposal aims to establish a dedicated visitor center for fishing tourism in the northern Lagoon. Key interventions include:

- A visitor center with pavilion for permanent and temporary exhibitions, powered by solar energy
- A dock and educational platform, hosting traditional Lagoon boats and fishing demonstrations
- A camping area with BBQ spots and tables, open to both visitors and local residents
- The renovation of existing buildings to host bathrooms, showers and a small restaurant with indoor and outdoor seating
- A halophyte botanical garden in the island's lowest area, enhanced by an elevated wooden boardwalk
- An open-air forum with amphitheater seating for outdoor lessons, screenings and public events
- An observation tower

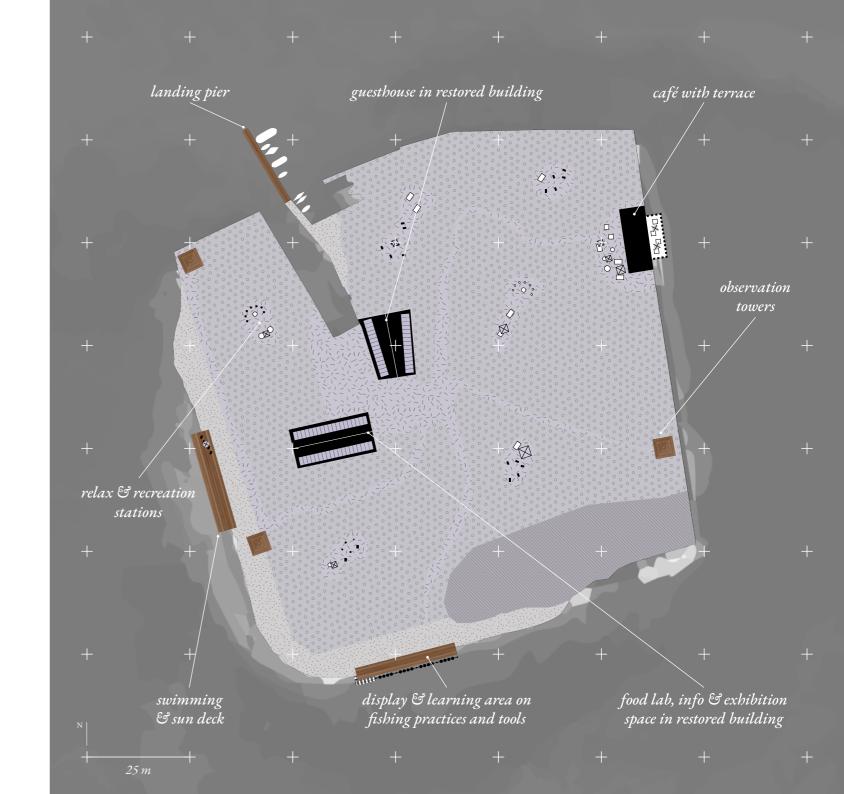


### Interventions - San Giorio in Alga: immersive experience island

In contrast, the intervention on San Giorgio in Alga embraces the island's smaller scale and secluded atmosphere marked by ruins, military remnants and lush vegetation, transforming it into a space for immersive experiences tied to fishing and island culture.

### The project proposes:

- The restoration of key buildings to host a solar-powered guesthouse and food lab, with exhibition and workshop areas for Lagoon-related practices, kitchen and demonstration space for cooking and storytelling
- A café with a terrace facing the Lagoon, created by repurposing the easternmost building along the shoreline
- A dock with a hands-on fishing practice and learning zone, showcasing tools, techniques and local knowledge
- An observation tower
- A swimming and sun dock, offering a point of access to the water
- Small clearings immersed in vegetation, equipped with lounge chairs, fire pits and seating areas for resting, socializing or enjoying moments of solitude



### **Processing & Market strategy**

The third strategy addresses the transformation of one of the most contested and symbolically charged areas of the Lagoon: the industrial zone of Porto Marghera, and more specifically the former Isola dei Petroli. Once a core of fossil-based extractive infrastructure, this area is reimagined as a central platform for processing, transforming and distributing Lagoon-based fish products, acting as a keystone in the systemic revaluation of the fishing sector.

### **3.1** From fossil infrastructure to food infrastructure

The Isola dei Petroli is proposed as a new cooperative fishing hub, where freshly harvested fish and aquaculture products can be processed, stored and distributed, supporting a regional circular economy rooted in the Lagoon. In this scenario, infrastructure once used for oil logistics is retooled to accommodate processing facilities, cold storage and transformation spaces (e.g. for preserves, sauces or smoked fish) and distribution channels that feed local and regional markets. These transformations will be spatially explored in the zoom-in.

### 3.2 Strategic flows and redistribution

The spatial strategy outlines a dual flow system, coming from the fishing arc flows, from the northern and southern fishing hubs:

- One flow, brings fresh catch di-

rectly to the historic fish markets of Venice, Rialto and Tronchetto, preserving the relationship between local fisheries and urban consumption.

- The other directs fish and aquaculture products that require transformation (e.g. blue crabs, algae, clams) toward Isola dei Petroli, where they undergo processing before being redistributed also back to the Venice markets.

### 3.3 Future expansion and flexibility

While the Isola dei Petroli serves as the primary intervention site, the strategy remains scalable. Should the Lagoon-based fishing economy continue to grow, other parts of Porto Marghera, already facing deindustrialization, can be progressively converted into supportive functions. The vision is not just to transform a place, but to transform the economic paradigm it represents towards a more aligned with the rights of nature framework one.

fig. 10/24 PROCESSING & MARKET STRATEGY MAP

Isola dei Petroli **Transforming - 3.1**Optional expansion area in the future (first) 3.3
Optional expansion area in the future (second) 3.3
Railway 3.2
Roads 3.2

2 km

Oil Refineries -> Processing & Market Ex Isola dei petroli Fish Market

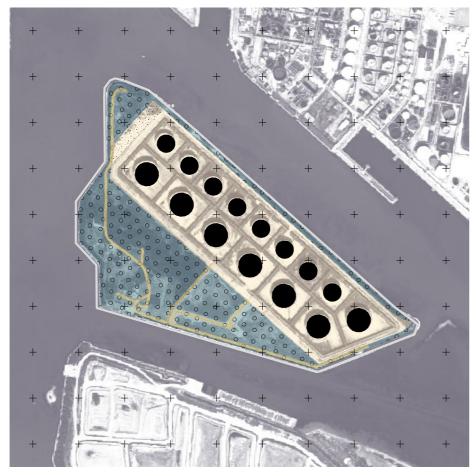
#### Zoom-in site

Known as the Isola dei Petroli or Isola dei Serbatoi (Oil island or Tanks island), this artificial island is part of the complex of Porto Marghera industrial site and was built in the 1930s using excavation materials from the surrounding industrial canals. It was part of a larger system of "mud islands" designated for the storage of dredged sediments.

Positioned in the central Lagoon, between the Canale delle Tresse to the south, the Canale Vittorio Emanuele to the north and the Malamocco-Marghera industrial channel (commonly known precisely as Canale dei Petroli) to the west, it became a strategic node for oil logistics.

The island is divided into two distinct areas: the eastern section facing directly toward the active petrochemical facilities of Porto Marghera, occupied by 15 large oil tanks, many of which are now abandoned or in disuse, and the western zone, bare, unused terrain with spontaneous vegetation, crossed by remnants of pipeline infrastructure. A sub-lagoon pipeline connects the island to the San Leonardo terminal, once used for offloading fuel from supply vessels. Despite this heavily industrial history, the island now offers an interesting opportunity for spatial and ecological reparation.

### Isola dei Petroli



125 m

Concrete-paved surface

Paths and storage yard

Herbaceous groundcover vegetation





fig. 10/25 - 26 ISOLA DEI PETROLI DEVELOPMENT, 1930s - Source: Archivio Ente Zona Industriale – Marghera

### Interventions - Isola dei Petroli

The final zoom-in site, Isola dei Petroli, embodies the most radical spatial and symbolic transformation within the project: from fossil fuel infrastructure to a node of the Lagoon's cooperative fishing economy, envisioning the island as the central platform for processing, transformation and distribution of fish products caught in the Lagoon. To support this shift, the following interventions are proposed:

- Softening the southern edge of the island, where it faces the open Lagoon, to restore a sense of physical and symbolic continuity with the water body. This gesture counters the hardened violence of the industrial shoreline, reintroducing permeability and connection
- Construction of two fishing docks along this softer southern edge, where fishers can arrive and unload their catch directly onto the island.
- Along the northern edge, a new logistical quay is introduced for the loading and redistribution of products, towards both Venice and the mainland, following the industrial canals that goes towards Viale della Libertà.
- A passenger landing pier is included to serve workers and visitors, connected to both Venice and the mainland.
- Adaptive reuse of the oil tanks for various cooperative functions

- Preservation of the open grassy area as a multi-use ecological buffer zone, serving both landscape regeneration and community uses.
  - Integration of resource management infrastructure, including solar panels, batteries, rainwater cisterns, a wastewater treatment unit and a mini eco-center, supporting energy and water self-sufficiency for the site.

# passenger landing pier

## loading & unloading dock -

## repurposed tanks: -

- fish processing unit
- cold storage & packaging
- storage & maintenance
- staff accommodation/changing rooms
- offices & logistics hub
- training & demonstration space

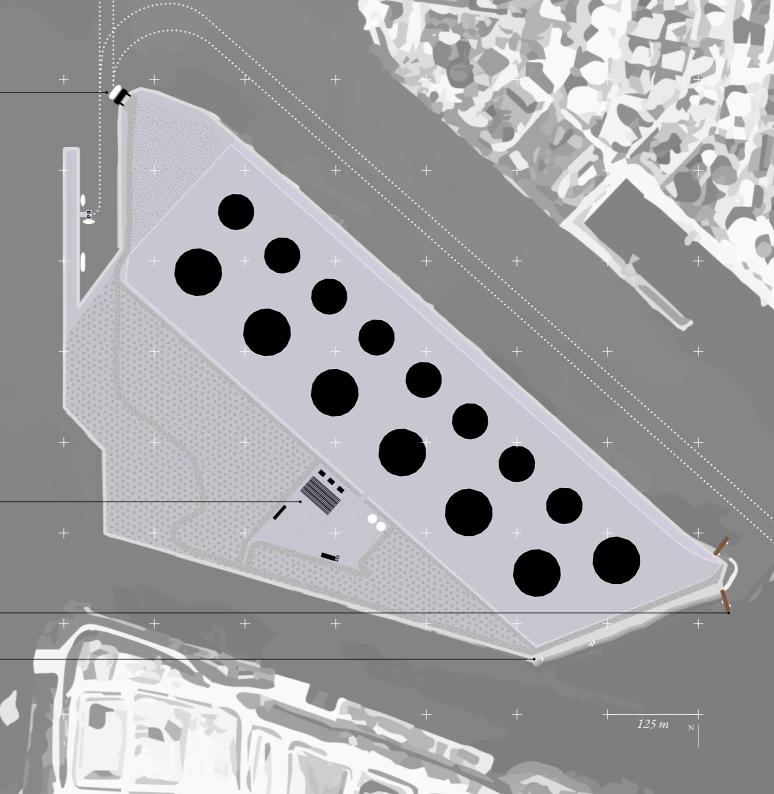
ecological buffer & multi-use open zone —

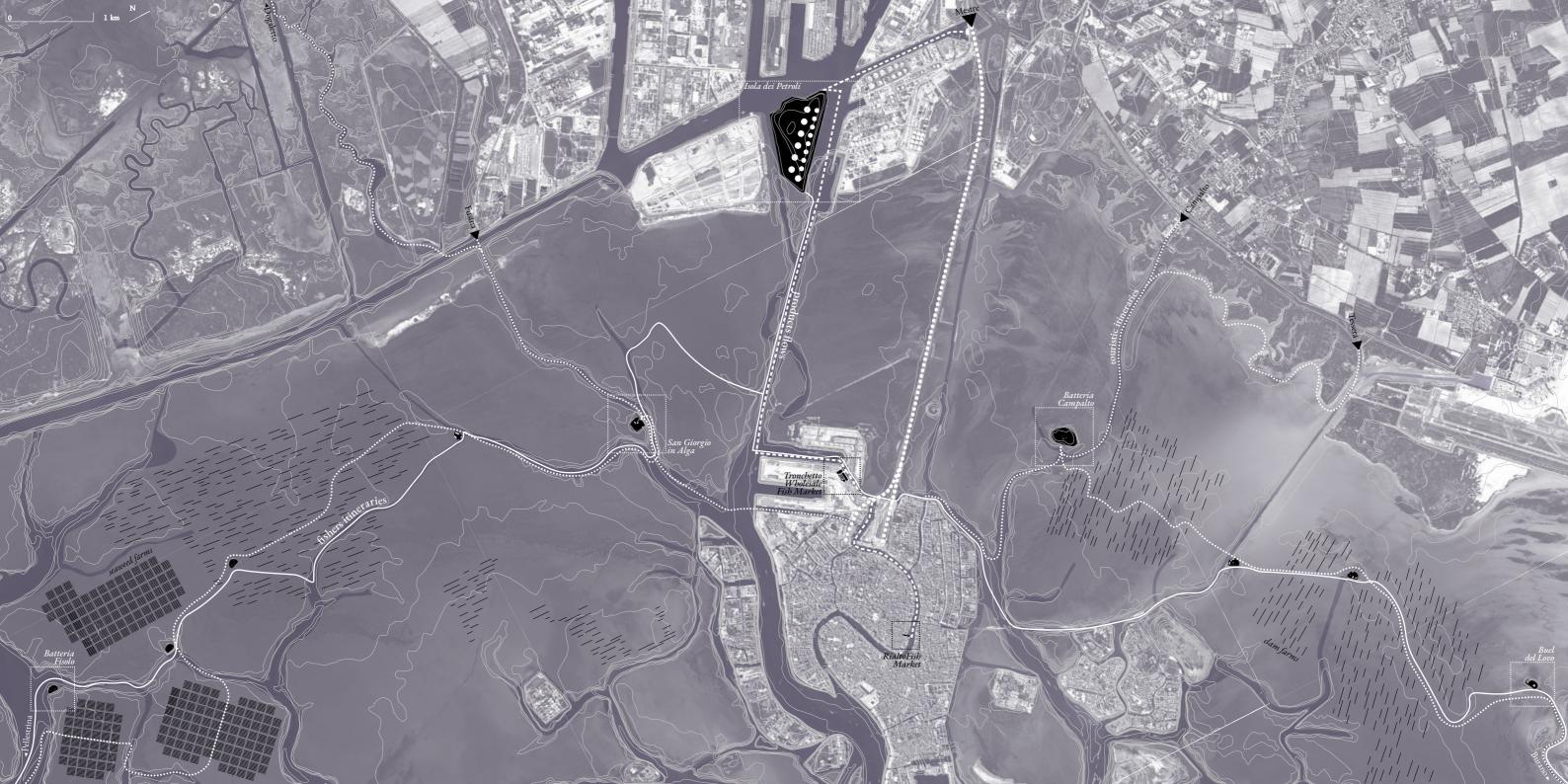
### resource management zone:

- solar panel & battery bank area
- mini ecocenter for waste sorting
- wastewater treatment module
- rainwater cisterns

fishermen's floating docks –

soft shoreline





**Conclusions & reflection** 

# **CONCLUSIONS.** Safeguarding through recognition

This thesis began with a fundamental concern: how to safeguard the Venice Lagoon and its islands from environmental degradation and socio-cultural erosion. In exploring this question, I decided to position the Lagoon not as a passive object of policy or preservation, but as an entity entitled to rights by choosing to work with the concept of rights of nature. Tracing back the research path, the investigation into what environmental degradation and socio-cultural erosion are and where they come from led to a layered analysis combining historical perspectives and spatial and symbolic dimensions of the Lagoon. To make this approach legible, the thesis was structured around five research questions articulated through

a timeline stretching from the past to a possible future. While each chapter addresses a specific question, this final section reflects on their interplay and offers a conclusive response to the main inquiry.

### **Research questions**

The core research question

"How can the institution of a legal entity as a new form of protection for the Venice Lagoon safeguard it from environmental degradation and socio-cultural erosion by enabling new-old social and productive functions aligned with the rights of nature framework?"

is addressed through a normative explo-

ration of a possible trajectory, one that brings together legal, spatial and collective imagination, transformation and work.

This thesis envisions the recognition of the Venice Lagoon as a legal subject as a new form of protection. Rather than offering a definitive solution, it imagines a pathway, suggesting that this recognition can constitute a transformative act of care and governance capable of reshaping how we inhabit and govern this fragile environment.

Such an institution would make the rights of nature a binding legal framework, fundamentally altering how space is used: certain harmful activities would become illegitimate, and previously marginalized or declining fun-

ctions, situated economies and socio-ecological practices, could re-emerge and be supported.

These new-old functions generate value not in extractive terms, but as ecological, cultural and economic presence rooted in care and reciprocity. This presence in turn builds resistance to destructive practices: the more the Lagoon becomes important again for those who inhabit it and depend on it, the more it is collectively protected. Much like in the past, when relationships of need sustained a form of co-existence with the Lagoon, these emerging functions foster a new socio-ecological equilibrium, grounded in mutual dependence and long-term care.

The responses to the other four sub-research questions articulated throughout the thesis, substantiate this hypothesis. What follows is a brief synthesis of each, highlighting their contribution to the overall argument. Full responses are developed in the corresponding chapters, where each question is explored in depth through historical, spatial, legal and design perspectives. A diagram at the end of this section offers a visual sum-

mary of how the questions, chapters and insights are interconnected.

[PAST] How have practices of local communities and authorities linked to the Venice Lagoon historically contributed to its protection and vitality, fostering a socio-ecological equilibrium?

Historically, the Lagoon was protected through situated practices of care and presence. Through these practices, local communities and authorities, bound by relationships of need and dependency, actively maintained a socio-ecological equilibrium that held both environmental and cultural value.

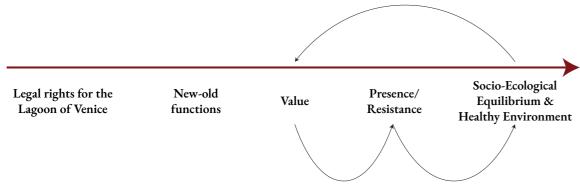
[PRESENT] What are the main factors causing the current direct and indirect exploitation of the Venice Lagoon and its islands, directly resulting from the abandonment that has occurred in the area, and how do these forces contribute to environmental degradation and socio-cultural erosion?

Environmental degradation and socio-cultural erosion stem from a complex interplay of direct and indirect exploitation. Pollution and hydro-geomorphological alterations undermine the Lagoon's physical resilience, while abandonment, commodification and the loss of traditional functions weaken its social and cultural fabric. These dynamics are mutually reinforcing and reflect a broader detachment from the Lagoon as a living environment.

[A WHILE BEFORE FUTURE] What could be the key steps needed to implement a legal entity for the Venice Lagoon?

A prototype participatory process is already underway. It is structured in progressive steps: from the introduction of the rights of nature concept to local communities and the collective drafting of a manifesto, to public assemblies, collective revisions and international presentation. The next stages aim to consolidate the charter of rights and begin exploring legal and institutional pathways for recognition. This process itself is a form of situated legal imagination, both speculative and concrete.

[FUTURE...] What new-old social and productive functions, aligned with the



new rights of nature framework, can be (re)introduced into the islands and Lagoon fabric to restore its value and ensure long-term socio-ecological sustainability? The design experiment conducted as part of this thesis demonstrates that activities such as fishing & aquaculture, fishing tourism and a cooperative fish market & processing can be (re)introduced to restore ecological and social value. Many more functions could emerge if the same framework were applied to other areas and uses explored through the design analysis.

## Contribution to knowledge

The main contribution of this thesis does not lie in the proposed strategies themselves, although they aim to be relevant, grounded and feasible, but rather in the framework that made them possible.

The effort was to bridge word and sign: the right to exist and the spatial form it can take. In this sense, the thesis attempts to insert design and urbanism into a domain, rights of nature, where they are rarely present. It suggests that spatial practice can help to make visible, thinkable and actionable the rights of a non-human entity like the Lagoon, and the desires of its active inhabitants.

The strategies are thus to be read less as conclusive proposals and more as situated tests within an experimental and evolving field. The final illustration included in the thesis connects design

interventions to the rights or wishes they respond to, highlighting the interdependence between spatial functions, rights of nature and civic desires that and this thesis tried to embody.

#### Limitations & further research

This work acknowledges its own limitations. It does not attempt to fully translate the rights of nature into legal action, nor does it exhaust the range of possible design strategies compatible with such a framework. Future research could deepen the legal implications of a Lagoon legal entity, experiment with small-scale governance transformation or the relationship between rights and the spatial boundaries in which they apply, especially in connection with other water bodies in the northern Adriatic Sea system.

Moreover, the potential of urbanism and territorial planning to engage with rights of nature remains largely untapped, particularly in legal geographies like Europe, where these debates are still emerging. More research is needed to understand how planners and designers can become advocates, mediators or translators of ecological personhood.

### Transversal aims

The transversal aims of the thesis were

Safeguard of the Venice Lagoon and islands social, economical and ecological sphere and of their relationship with the city. As soon as possible.

Personal journey: how I define the project and how the project defines

Achieving the first requires long-term alliances and a profound redefinition of value in the culture and mindset of modern local communities and institutions, something that will only follow, not precede, the legal recognition of the Lagoon as a juridical person. The legal entity, the participatory process, and the spatial proposals are all steps in this direction, tools to imagine and begin enacting a different way of living with the Lagoon, more similar to what I have described as "relationships of will" and their wishes.

As for the second aim, this was never a neutral or detached project. I began this project and my interaction with the Lagoon for the first time as researcher and not as a citizen with a set of questions and a desire to contribute. As I moved forward, I still carry many questions, but I now feel much more intertwined with the Lagoon and with the people who live and work in, with and for it. This has certainly been an amazing personal journey. Or better yet: just the beginning of one.



### REFLECTION

# Preliminary Results of the Research and Design

The preliminary results of my research have provided insight into how the concept of the rights of nature can be applied to the Venice Lagoon, a complex context where both environmental and socio-cultural challenges need to be addressed. This exploration has allowed me to gain a deeper understanding of how the Rights of Nature framework operates and to consider potential pathways for introducing these novel ideas in a place as multifaceted as the Lagoon. These insights have contributed to the development of the design project, where the next step was to translate the framework into actionable design measures. The document produced so far reflects this attempt, offering a first set of indications for how design could be harmonized with the rights of nature principles. This includes the identification of design interventions that align with the broader goal of safeguarding the Lagoon's unique ecosystem, while also taking into account its historical, social and economic functions. Thus, the research has not only deepened my

theoretical understanding but has also laid the groundwork for a practical approach, providing a basis for further refinement and testing in the next phases of the project.

### Approach Effectiveness

Reflecting on whether my approach worked, I believe that I've found a balance between theory and practice. In fact, when dealing with the topic of rights of nature, it seems logical to me that I didn't limit myself to a purely theoretical or philosophical perspective. Instead of focusing on the approaches, prevalent in the arts, that explore the rights of nature by attempting to understand how we can communicate with or for nature, I decided, in the early stages of my thesis, to focus mainly on understanding the socio-ecological challenges of the Venice Lagoon, without directly invoking the rights of nature framework. By addressing these issues first, I was able to contextualize the framework as a potential solution and identify a potential vehicle for implementing this change (the relationships of will). The core turning point was identifying the actors involved in this paradigm shift, those who could help translate the rights of nature framework into real-world action. This methodological choice has allowed me to move beyond theoretical discussion into practical exploration, which I think was crucial, and it also changed the method itself into the primary outcome of the project: instead of just theorizing about the rights of nature, the approach I developed tries to operationalize these ideas through participation, action and envisioning a future aligned with this framework. Additionally, my "backwards backcasting" approach was instrumental in reinterpreting the past. By looking at historical practices and relationships between humans and the Lagoon, I could speculate on better models that might inform future actions. This process stems for sure partially from my personal tendency to be more drawn to what has already passed than to what is yet to unfold. However, I strongly believe that the lessons of the past should not be overlooked, as it is the only reference we have to understand that certain actions lead to specific outcomes. For

these reasons, the role of the past in shaping future decisions has been central to my thesis.

#### Mentors' Feedback

The mentoring I received was invaluable. I was guided through open discussions that allowed me to explore my ideas freely while always being reminded of the primary objective: to graduate. One recurring question from my mentors that deeply shaped the direction of my research was: cosa puoi fare tu? (What can you contribute?) And this is what I tried to focus on. It wasn't just about the final product, it was about my growth through the process. The feedback helped me refine the project and reminded me that the project's value lies not only in the product alone, but also in how it shapes me as a researcher. This kind of mentorship helped me stay focused and motivated. At the beginning, I intentionally chose mentors familiar with the context of my thesis, and this decision proved to be highly effective. Their existing knowledge allowed us to dive straight into the core issues wi-

thout needing to rehash foundational explanations. Moreover, their alignment with the values central to my work gave me the confidence to engage deeply, knowing I was understood and supported. This created a comfortable space for open dialogue, which I found crucial for my growth throughout the project. The balance between the freedom I had to explore creatively and the critical, insightful feedback I received proved to be a powerful combination. Often, a single question or comment from my mentors would prompt a shift in my perspective, guiding my research in new and productive directions. This process allowed the key themes of my thesis to emerge naturally, gradually shaping the project into something more refined and meaningful.

### **Learning Process**

This project has been a continuous learning journey. When I started, I had limited knowledge of the rights of nature, but over time, I've learned how deeply this concept aligns with my values. My understanding of the Venice Lagoon,

especially its historical and socio-ecological dynamics, formed a strong foundation for my research. I've learned that dedicating time to explore a single topic over several months reveals unexpected insights, and the care one gives to a project helps it grow in ways that aren't immediately apparent. Furthermore, using my experiences as tools for fieldwork and research has been an essential part of the project since it allowed me to learn how to try to bridge the gap between theory and practice, positioning myself within the context and use my findings to advocate for change, which has provided a reinvigorating sense of purpose throughout the thesis.

# Relation to Master Track and Programme

My graduation project closely aligns with the Urbanism track of the MSc in Architecture, Urbanism & Building Sciences. It examines the fragile relationship between humans and their environment, specifically focusing on the Venice Lagoon's evolving socio-ecological system. The project is also embedded

in broader themes of urban resilience, governance, and sustainable development in vulnerable environments. This connects directly to the core principles of my track, which seeks to explore how urbanism can respond to complex, transitional systems. By proposing the rights of nature as a potential framework for protection, I am engaging with an interdisciplinary approach that transcends traditional urbanism.

# Influence of Research on Design and Vice Versa

My research has significantly influenced my design, and vice versa. The research set the foundation for the design, while the design became a lens through which to revisit and reinterpret the research. From the beginning, the question I posed was already pointing toward a possible conclusion, yet what I offer in the final part of the thesis is not a definitive answer, but the beginning of what could evolve into a much longer and more complex process. The project phase, in fact, is not the most important output. I see it more as an experiment, an attempt to translate a word into a sign, to give a form to the voice of the Venice Lagoon and its claim for rights. The most meaningful outcomes emerged earlier in the process, particularly in the participatory effort to co-write a manifesto for the rights of the Lagoon. This moment, among others, belongs to what I call the

if not more, important than the project itself. If I had to describe my thesis, I would say it tells a story: the story of the Lagoon across time, past, modernity, present and "a while before future." What I've brought to this narrative is an interpretation centered on the shifting notions of value and care, and how these reflect the evolving relationship between Venice and its people. The final design proposal is not so much an end, but a hypothesis for how this story might continue. The analytical part of the thesis is therefore a historically rooted, interpretative reading of the Lagoon, while the design explores the question of what kind of new form of protection we can imagine for the Venice Lagoon. And the answer I explore is the concept of the rights of nature. But this idea did not emerge from the research as the most rational or feasible option in a classic design process. Rather, it was a conscious choice made at the outset, a framework I decided to work within. It reflects my personal values and also a dissatisfaction with the limits of conventional urban planning tools, which often feel too rigid and disconnected from the complexity of the places they aim to serve. So, rather than asking what is the best form of protection for the Lagoon? and arriving at the idea of legal personhood, I asked how can a legal personality help protect the Lagoon?. The research then followed this direction, drawing out

"process" phase, which I consider just as,

the themes of care, value and ecological complexity, domains where rights of nature frameworks have shown relevance, particularly in contexts outside Europe. This inversion of process, starting with a conceptual choice and then shaping the research around it, was deeply influenced by my interdisciplinary approach. As I describe in the chapter "The Venetian my interdisciplinary effort", drawing on diverse methods and fields of knowledge was crucial for grounding this project in the real world. Ultimately, the thesis is also a critique of the current limits of planning and a search for more imaginative, ethical and regenerative tools.

# Transferability and Methodology Assessment

The main takeaway of my project in terms of transferability lies in its attempt to spatially interpret the concept of rights of nature, a legal idea that, although still marginal in Europe, may soon gain traction as a new form of environmental legislation. The core question I engage with, what does it mean for a legal concept to act in space? could be asked in many other places and contexts. My design does not offer a definitive answer to this question, rather it is conceived as a speculative experiment, an almost unrealizable exercise aiming to translate law into form, word into sign. What I believe is transferable, then, is not the specific proposal, but the methodological approach: the attempt to work with the rights of nature from a spatial perspective and to begin discussing how this kind of legal framework could materially affect the territory. Whether in terms of protection, prevention, design or ecological restoration, I see value in opening this dialogue. Especially in a European context, where the rights of nature are still in their infancy, I believe this approach, creating a bridge between law and space, between juridical language and spatial imagination, could provide a valuable model for future exploration. This approach is also part of my methodology, that I assess through both the outcomes achieved and the feedback received from mentors and external collaborators. The research was not done in isolation. It involved input from various stakeholders, including those involved in the creation of the Venice Lagoon's rights of nature manifesto. By integrating their insights into my work, I've ensured that my approach is both grounded in expertise and relevant to the ongoing conversation about the Lagoon's future. The feedback, along with the interdisciplinary nature of my work, has been instrumental in shaping the project's direction.

### Academic and Societal Value

This project sits at the intersection of professional innovation, social urgency and scientific exploration. Professionally, it investigates the role that urbanism,

and spatial design more broadly, can play in relation to the emerging concept of the rights of nature within the European context. By developing a spatial strategy rooted in the legal recognition of the Venetian Lagoon as a rights-bearing entity, the project offers a concrete example of how urban designers might operate within new ethical and legal paradigms. It also highlights the value of interdisciplinary collaboration, integrating insights from environmental humanities and contemporary art to enrich the urbanist approach. Socially, the stakes are exceptionally high: the decline of Venice's population, 72% lost in just over seven decades, signals a deeper erosion of liveability, opportunity and local agency. Without intervention, the ongoing exodus of residents, driven by the disappearance of essential functions, climate change and overtourism, could result in the irreversible transformation of the Lagoon-city into a hollow shell of itself. Scientifically, the project contributes to the relatively unexplored terrain of granting legal rights to a water body like the Venetian Lagoon, Europe's largest and most inhabited Lagoon. Its unique condition, in which human settlements are embedded within the aquatic ecosystem rather than at its margins, poses a compelling case for rethinking governance, ecological protection and cohabitation in socio-ecological systems. By doing so, the project not only expands the theoretical framework around rights of nature

but also tests its practical applicability in one of the world's most iconic and vulnerable urban environments.

#### Personal and Professional Outlook

In my thesis, I identify two main transversal aims, one of which is a personal journey: understanding how I define the project and how the project, in turn, defines me. I want to reflect especially on the latter. Throughout this process, my mentors have encouraged me to think of this work as something meaningful for myself and as a form of investment in the future. I believe I have engaged with the project in this direction, by reaffirming that care for territory, the protection and regeneration of what we already have, rather than the design of something entirely new, is both my starting point and the path I want to keep on following. Moreover, this journey has allowed me to strengthen ties with people, topics and places that are not just part of a thesis but could form the basis of a future career. I now see this project not only as a last moment of free experimentation before entering the professional world, but also as the first concrete step toward a possible future, whether professionally, by continuing to work with the rights of nature and transitional ecosystems, or personally, through activism for their recognition.

### Positioning and Ethical Reflections

Knowing the place deeply, perhaps even too well, has been both a resource and a challenge. On the one hand, it allowed me to save time by building on existing knowledge and relationships. On the other, it forced me to question my role constantly. I felt a strong sense of responsibility toward the people I was working with, and this often raised ethical questions about my position. I have long struggled with the divide between academic life and the more grounded, hands-on experiences I've had, for example, working on a farm in Sant'Erasmo. The academic world often feels painfully detached from reality, and I've tried to act as a bridge between these two dimensions, to help close a gap I feel very strongly. Yet it hasn't always been easy: I often felt awkward or out of place when, for instance, I went to interview my former employers between delivery shifts and long hours in the fields, knowing how busy and exhausted they are just trying to stay afloat in a fragile Lagoon economy. That was one of the hardest aspects of my research. I chose to place myself within the series of ethnographic portraits in my thesis to embody this ambivalence, simultaneously a researcher and a participant, observing and being observed, trying to navigate both worlds with honesty and care.



N THE RIGHT:

fig. 11/01 LAGOON CASONE WITH CHARACTERISTIC FIREPLACE, SANT'ERASMO, APRIL 2025

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